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ANNOTATION ON THE TECTOGRAMMATICAL<br>LEVEL IN THE PRAGUE DEPENDENCY TREEBANK<br>(ANNOTATION MANUAL)<br>PART 3 OF 3<br>CHAPTER 9-11 (PAGES 997--1257)<br>Marie Mikulová, Alevtina Bémová, Jan Hajič, Eva Haičová, Jiří Havelka, Veronika Kolářová, Lucie Kučová, Markéta Lopatková, Petr Pajas, Jarmila Panevová,Magda Razímová, Petr Sgall, Jan Štěpánek, Zdeñka Urešová, Kateřina Veselá, Zdeněk Žabokrtský

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# Annotation on the tectogrammatical layer in the Prague Dependency Treebank 

## Annotation manual

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by Translation:, Kateřina Součková, Alena Böhmová, Kristýna Čermáková, Jiří Havelka, and Patrick Corness

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## Abstract

This technical document provides detailed documentation of the Prague Dependency Treebank, version 2.0 (PDT 2.0). It includes a detailed complex description of the rules that have been used so far for the annotation of Czech sentences on the tectogrammatical layer both in linguistic and technical respect.
The annotated data do not always reflect the described state of the rules precisely, therefore the technical document includes also a detailed description of the tectogrammatical trees that are annotated in PDT 2.0.

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## Chapter 1. Introduction

The present manual describes how sentences are represented at the tectogrammatical level in the Prague Dependecy Treebank. It is meant to be used by the PDT users, both by those who are interested in the linguistic side of the representation and those who work on further processing of the data, using e.g. statistical or other methods for automatic syntactic analysis or synthesis.

Preceding (lower) levels of PDT are concerned with:

- morphological annotation (i.e. the lemmas, tags, values of the morphological categories; where the words are arranged in a linear way, without any structure).

The morphological annotation manual, see Prague Dependency Treebank 2.0, CDROM, doc/manuals/cz/m-layer/.

- analytical annotation (i.e. the surface structure, dependencies, analytical functions).

The analytical level annotation manual, see Prague Dependency Treebank 2.0, CDROM, doc/manuals/cz/a-layer/.

The tectogrammatical annotation is structural and dependency based; it captures the so called deep, semantic structure of the sentence. At the tectogrammatical level, each (well-formed) sentence has at least one representation unambiguously characterizing the meaning of the sentence (or one of its meanings if the sentence is ambiguous). The tectogrammatical level representation contains all the information encoded in the structure of the sentence and its lexical items - all the information necessary for translating the tectogrammatical representation into the lower levels, as well as for its interpretation in the sense of intensional semantics.

The tectogrammatical representation of a sentence contains all kinds of information: apart from the actual deep structure of the sentence and the functions of its parts, it contains also other information, such as various kinds of grammatemes, the information regarding the grammatical and textual coreference and the topic-focus articulation of the sentence (including the deep word order, i.e. the information about the communicative dynamism).

The tectogrammatical level builds to a large extent on the analytical level. Since the same data were analyzed, it was not necessary to start from scratch, when representing the data at the tectogrammatical level; it was possible to take over basically the whole analytical structure (at least as far as the autosemantic lexical items are concerned) - the analytical and tectogrammatical levels are based on the same conception of dependency. Certain parts of the data were processed automatically before the actual manual annotation; other parts were, on the other hand, processed when the annotators had finished their work. Various procedures were introduced and implemented for this purpose. These procedures are not sufficient for determining the definitive representation even though they are able to translate certain constructions into the tectogrammatical representation very precisely. The decisive definition of the tectogrammatical level is in this manual; the output of the automatic procedures is further processed (modified) by the annotators. (The present manual is not concerned with the description of these automatic procedures.)

The data in PDT 2.0 do not necessarily reflect the most updated version of the tectogrammatical annotation rules. Therefore, the purpose of this manual is twofold: first, it summarizes our up-to-date ideas as to the rules for the annotation of Czech sentences at the tectogrammatical level (i.e. how Czech texts should be analyzed), second, it attempts to describe as precisely as possible the data as annotated in PDT 2.0. The discrepancy between the described annotation rules and the real state of the annotation is caused by the fact that only in the process of annotation it became clear whether the rules (as formulated at the beginning) are adequate or whether they need to be made more precise or replaced by other rules. In the annotation process, also certain problematic constructions emerged (not described so far) for which it was necessary to introduce new rules. New rules were constituted during the whole process of annotation and, even in the very end of the annotation, new modifications of the rules were introduced. It was not possible (for reasons of time) to run a subsequent check on whether the data
correspond to the latest version of the rules in all areas. Only certain selected phenomena were checked (and corrected if necessary); mostly the important and frequent ones. In the manual, the reader is always informed about such a discrepancy between the rules and real state of affairs.

The chapters of the manual are organized in the way that reflects the sentence representation at the tectogrammatical level. The basic principles of the sentence representation at the tectogrammatical level are described in Chapter 2, Basic principles of sentence representation at the tectogrammatical level; this section also provides the reader with the most important notions used further in the manual. The next chapter Chapter 3, Node types classifies the tectogrammatical tree nodes into different types. The next two chapters Chapter 4, Tectogrammatical lemma (t-lemma) and Chapter 5, Complex nodes and grammatemes are devoted to the description of the attributes further specifying individual lexical units (represented by nodes). This is followed by the description of the sentence structure, with special emphasis on the dependency relations between lexical units (Chapter 6, Sentence representation structure). The annotation of some special kinds of syntactic structures is described in Chapter 8, Specific syntactic constructions. A separate chapter is devoted to functors and sub-functors (Chapter 7, Functors and subfunctors). Coreference (Chapter 9, Coreference) and topic-focus articulation (Chapter 10, Topic-focus articulation) are dealt with in a separate chapter each, too. The last chapter (Chapter 11, Data format) contains the information concerning the format of the annotated data that is relevant w.r.t. the manual annotation.

### 1.1. Typographical conventions

Examples. The manual contains a number of examples illustrating the phenomena in question. The examples have a fixed form. They do not provide the structure; they only present the values of the attributes of individual words present or absent in the surface structure of the example sentence.

The example sentences are artificial and usually presented without any context. The illustrated annotation corresponds to the most common context the sentence could be used in.

NB! The example sentences necessarily contain only the part that is to be illustrated (i.e. elided expressions - if present - do not have to be made visible if they are not the subject of the illustration).

Items represented by a single node in the sentence are underscored. The value of the relevant attribute is given in square brackets in the following form: the name of the attribute=the value of the attribute (if there are more possible values, they are all in the brackets, separated by a semicolon). If the example sentence is supposed to illustrate the values of just one node, the values are presented in square brackets after the example sentence. If there are more nodes the values of which are to be illustrated, the values follow (in square brackets) immediately after the last underscored word represented by the given node.

An exception to this are the functor values. If the functor values of individual nodes are to be illustrated, they always immediately follow the given word. Functors are not given in square brackets; they are separated from the word by a period.

## Examples:

Upadl do nesnází.DIR3 na dlouhou dobu. [is_state=1] (=He got into difficulties for a long time)
Špičková cena.DENOM [is_member=1] a.CONJ špičkový výkon.DENOM [is_member=1] (=Top price and top performance)

The words that are not expressed at the surface level (and are represented by newly established nodes) are given in curly brackets. Curly brackets always contain the t-lemma of the newly established node, which may but need not be followed by the values of selected attributes.

Examples:
\{\#PersPron.ACT\} Přijde. (=She will come)
\{\#PersPron.ACT [tfa=t]\} Přijde. (=She will come)
If it is necessary to stress that certain words are not assigned a separate node in the tectogrammatical tree, they are given in angle brackets $<>$.

Example:
Přijde jen.RHEM $\leq t e h d y>, \leq k d y z \check{z}>m u$ ustoupiśs.TWHEN ( $=$ He comes only in the case you give in to him)

Example tectogrammatical trees. For a number of the example sentences, example trees are included as well. Each example tree represents a complete analysis of the given sentence.

Tectogrammatical trees in PDT 2.0 make use of two different styles of representation (see Prague Dependency Treebank 2.0, CDROM, doc/tools/tred/PML_mak.html). The example trees in the manual make use of the following (representation) settings (PML_T_Full template).

Nodes. Under a tree node, the attribute values are displayed (if assigned) in the following order:

```
- t_lemma.sentmod (t_lemma of the co-referred node)
    tfa_functor.subfunctor.state_M_P
    nodetype or gram/sempos
    gram
    person_name
    dsp_root.quot/type:quot/type
```

The attribute values are usually presented directly, without giving the name of the attribute first. Names of the attributes are only provided if the values are not unambiguous. The value of the attribute quot/type is always in the form: name of the attribute:its value.

As for complex nodes (nodet ype=complex), the value of the nodetype attribute is not specified; the value of the gram/sempos attribute is given directly instead.

The notation state is included in the list of the attribute values if the value of the is_state attribute is 1 .

The notation _M is included if the value of the is member attribute is 1 .
The notation _ $\mathbf{P}$ is included if the value of the is_parenthesis attribute is 1 .
The notation person_name is included if the value of the is_person_name attribute is 1 .
The notation dsp_root is included if the value of the is_dsp_root attribute is 1 .
Nodes representing words present at the surface level are represented as little circles; newly established nodes (is_generated=1) are represented as little squares.
(The color of the nodes carries certain information as well: yellow means the node has the $f$ value in the $t f a$ attribute, green means $c$ in the $t f a$ attribute, white means $t$ in the $t f a$ attribute. Nodes with no value assigned in the $t f a$ attribute are grey.)

Edges. Edges are the connecting lines between nodes.
The edge between the technical root node of the tectogrammatical tree and the root node of the represented sentence and the edges between nodes with the PAR, PARTL, VOCAT, RHEM, CM, FPHR and

PREC functors and their mother nodes (i.e. edges not representing dependencies; see Section 6.1.2, "Non-dependency edges") are represented as thin dotted lines.

The upper half of the edge between a paratactic structure root node and a terminal member of the paratactic structure is represented as a thin grey line; the lower half is represented as a thick grey line. The upper half of the edge between a paratactic structure root node (that is not a member of another paratactic structure) and its mother node is represented as a thick grey line; the lower half is represented as a thin grey line. The edge between a paratactic structure root node and the root of a shared modifier is represented as a thin (blue) line. The edge between a paratactic structure root node and a direct member of this structure that is a paratactic structure root node itself (in case of embedded paratactic structures) is represented as a thin grey line. (For more on paratactic structures, see Section 6.6.1, "Representing parataxis in a tectogrammatical tree".)

References. Attributes of the type reference, marking especially co-referential relations, are represented as arrows going from one node to another. Grammatical coreference is represented by an orange dotted arrow pointing to the co-referred node (starting at the co-referring node). Textual coreference is represented by a blue dotted arrow pointing to the co-referred node (starting at the co-referring node). If the co-referred node is not in the same tree as the co-referring node, the arrow is short and points either to the left or to the right of the node, depending on whether the co-referred node is in the preceding or following tree; next to the co-referring node, the t-lemma of the co-referred node is specified.

NB! Textual coreference relations crossing the boundaries of a single tectogrammatical tree are not represented in the example trees at all.

Reference to a segment (coref_special=segm) is represented as a short red arrow pointing to the left of the node. Exophoric reference (coref_special=exoph) is represented as a short blue arrow pointing upwards.

The second dependency with predicative complements is represented by a green mixed (dash - period) arrow going from the node with the COMPL functor to the node representing the governing noun.

NB! In the example tectogrammatical trees (just like in the PDT trees; see Section 6.2.4, "Representing valency in the tectogrammatical trees"), the valency of nouns is not represented properly - with the exception of verbal nouns!

Figure 1.1. Example tectogrammatical tree


Stroj funguje, ale ne optimálně, a proto ho musíme bud' opravit, nebo koupit nový. (=lit. Machine is_working, but not optimally, and therefore (we) it have_to either repair, or buy new)

## Figure 1.2. Example tectogrammatical tree



Přišel tam Petr (a Pavel). (=lit. Came there Petr (and Pavel))
Figure 1.3. Example tectogrammatical tree


Ozvalo se: ,„Nechod'tam!" (=lit. Sounded REFL: Don't_go there!)
Other typographical conventions. Minor titles at the beginning of the paragraphs are marked by boldface. Italics are used for highlighting the terms that are used for the first time (i.e. when they are defined); italics are also used in examples.

Three exclamation marks !!! at the beginning of a paragraph are used for marking the paragraphs containing notes on the differences between the rules and the actual analysis of the data. If no such paragraph is included in a given section, it is assumed that the data conform to the rules as described.

### 1.2. Note on the translation

There were five translators translating this manual working in cooperation, nevertheless separately. This led to certain differences in terminology and style. The final proofreading was aimed mainly at the unification of the terminology but could not - for reasons of time - completely remove all differences in style and conventions adopted by the individual translators. As for translating the example sentences, for example, some translators used abbreviations like REFL (reflexive), AUX (auxiliary), EMPH (emphasis), whereas others simply used the dash to signal that the given Czech word has no direct translation in English. Hopefully, theses differences will cause no difficulties in using the manual.

# Chapter 2. Basic principles of sentence representation at the tectogrammatical level 

Natural language is an extraordinarily complex system; therefore, it is useful to decompose its description into several layers. The highest level in the framework of the Functional Generative Description (FGD), which serves as the theoretical basis for PDT, is called the tectogrammatical level and is supposed to represent the semantic structure of the sentence. The tectogrammatical level in PDT is based on the ideas developed in FGD; in a number of details, though, it is modified or supplemented.

The tectogrammatical level in PDT is governed by the following principles:

- the basic unit of annotation at the tectogrammatical level is a sentence as a basic means of conveying meaning.
- for every well-formed (Czech) sentence, it is possible to provide its tectogrammatical representation: a tectogrammatical tree structure (tectogrammatical tree in sequel).
- in case of ambiguity, it is in theory possible to assign one sentence more tectogrammatical trees. However, in PDT only one tree is assigned to each sentence, such that it corresponds to the given reading of the sentence.
- in case of synonymy, on the other hand, different sentences can be assigned an single tectogrammatical tree (it has to be a case of strict synonymy, though, i.e. the truth conditions have to be absolutely identical). An example of synonymous expressions with identical tectogrammatical representation are expressions like otci̊v klobouk (=Father's hat) and klobouk otce (=lit. hat Father. $G E N$ ). Synonymy is in fact very rare in PDT (less frequent than originally thought in FGD).

Tectogrammatical trees have these basic properties:

- tectogrammatical trees are data structures the basis of which is formed by a rooted tree (in the sense of the theory of graphs): it consists of a set of nodes and a set of edges and one of the nodes is marked as the root of the tree.
- tectogrammatical tree nodes either represent expressions present at the surface level or they are "artificial", newly established nodes that have no counterparts at the surface structure. Functional words (like subordinating conjunctions, auxiliary verbs) are not assigned separate nodes in the trees (see Section 2.1, "Relation between the tectogrammatical level and the lower levels").

Each node is itself a complex unit with certain inner structure. It is possible to conceive of it as a set of attributes, more precisely as a set of ordered attribute - value pairs. Whether a given attribute is or is not present in a given node follows from its nodetype (see Chapter 3, Node types).

Fig. 2.1: Examples of nodes representing expressions present at the surface structure of the sentence are: starý (=old), sultán (=sultan), nový (=new), sultán (=sultan), vystřidali se (=changed places). The prepositional phrase na trinu (=on the throne) is represented by a single node (the preposition $n a$ is not assigned a separate node). In order to represent the coordination starý sultán a nový sultán (=the old and new sultan), the conjunction $a(=a n d)$ is assigned a separate node. An example of a newly established node is the node representing the Patient (functor=PAT) of the verb vystřidat se (=exchange, replace).

Node attributes can be divided into several groups. The basic attributes of a tectogrammatical tree node are the tectogrammatical lemma, grammatemes and the functor. The tectogrammatical lemma expresses the lexical meaning of the node (see Chapter 4, Tectogrammatical lemma (t-lemma)). The grammatemes correspond to (the meanings of) certain lexical and morphological categories
(see Chapter 5, Complex nodes and grammatemes). The functors capture the kind of syntactic dependency between autosemantic expressions, i.e. they correspond to syntactic functions (see Chapter 7, Functors and subfunctors). There are also attributes providing the information regarding the coreference (see Chapter 9, Coreference), topic - focus articulation and deep word order (see Chapter 10, Topic-focus articulation) of the sentence. The remaining attributes concern special properties of the structure and certain syntactic and semantic properties impossible to capture in any other way.

The attribute values are of different types (see Section 11.2, "A node and types of attribute values"). Attribute values are mostly sequences of symbols; the set of sequences for a given attribute is usually fixed. A special type of attributes are attributes of the type reference. These attributes are used for representing relations (most often coreference relations) that go "across" the tree or even cross tree boundaries.

Fig. 2.1: In the example tree, there is one attribute of the type reference, representing reciprocity (i.e. a grammatical coreference relation) between the Patient and Actor of the predicate vystřidat $s e$. It is depicted as a red interrupted arrow.

For the list of all attributes, see Section 11.4, "Attributes of nodes in a tectogrammatical tree".

- tectogrammatical tree edges capture the dependency relations between the nodes (more precisely between the autosemantic expressions) of tectogrammatical trees. Not every edge, though, represents a linguistic dependency (see Section 6.1, "Dependency"). Edges have no attributes of their own; attributes that actually belong to edges (e.g. the type of dependency) are presented as attributes of the corresponding nodes.

Fig. 2.1: The edges are represented as straight connecting lines between the nodes. The edges representing dependency are marked by a thick grey line. For more details see Section 6.1, "Dependency".

- tectogrammatical tree nodes are in a linear order; this linear order represents the deep word order of the sentence (see Section 6.3, "Deep structure word order").

Also the following terms are used when talking about tectogrammatical trees (here explained only informally):

Technical root node of a tectogrammatical tree. The root node of a sentence is a node with no linguistic interpretation; it only serves technical purposes (e.g. it bears the sentence indentifier). It has always exactly one daughter node. The root of a sentence is called technical root node of a tectogrammatical tree. When talking about tectogrammatical tree nodes (further in the text), the technical root node is not taken into account (if not stated otherwise).

Fig. 2.1: The technical root node of the tectogrammatical tree is the highest node, its only daughter node is connected to it by a thin dotted line (the value of the nodetype attribute of the technical root node is root; the technical root node also has the id attribute, which serves for identifying the sentence in the corpus).

Mother node. Node X is the mother of node Y , if there is an edge between X and Y and if X is closer to the technical root node of the tree (i.e. if it is higher in the tree).

Fig. 2.1: The mother of the node representing the expression (starý) sultán is the node for $a$.
Immediate daughter node. Node X is an immediate daughter of node Y , if Y is the mother of X .
Since tectogrammatical trees make use of linear ordering, there are right and left daughter nodes. A right (left) immediate daughter of node M is such an immediate daughter which occurs to the right (left) of node M.

Fig. 2.1: The immediate daughter nodes of the node representing the verb vystridat se are these three nodes: the node for the conjunction $a$, the newly established node for the Patient and the node for the prepositional phrase na trinu. All immediate daughter nodes of vystřidat se are left daughters.

Governing/dependent node. If nodes X and Y (or: the expressions represented by them) are in a dependency relation, X is the governing node (or dependent node) of node Y . The governing node does not have to be the mother node of the dependent node (there can even be more governing nodes for a single node) and the dependent node does not have to be an immediate daughter of its governing node (see also Section 6.1, "Dependency"). (In the technical documentation for PDT, the terms "effective mother node" and "effective daughter node" are used for this type of relation).

Fig. 2.1: The governing node of the node for starý is the node for sultán (which is also its mother node). The governing node of the node for sultán is the node representing the verb vystřidat se (which is not its mother node).

Sister node. Node X is a sister node of node Y if they have the same mother.
Since tectogrammatical trees make use of linear ordering, there are right and left sisters. A right (left) sister node of node M is such a sister that occurs to the right (left) of node M.

Fig. 2.1: The sister nodes of the node for $a$ are the newly established node for the Patient of vystrídat se and the node representing the prepositional phrase na truinu. All the sisters of the node representing the conjunction $a$ are its right sisters.

Path from node M. For purposes of topic - focus articulation annotation, we also define the term right (left) path from node M and the rightmost (leftmost) path from node M .

A right (left) path from node $M$ is such a path in the tree that starts at node M , goes downwards (towards the leaves) and ends in a node that has no right (left) immediate daughters. Node $M$ is not part of the path.

The rightmost (leftmost) path from node $M$ is such a right (left) path in the tree for which it holds that no node on the path has a right (left) sister.

Fig. 2.1: There is no right path leading from the node for vystřidat se. As for the leftmost path from the node representing vystrídat se, it consists of the nodes for $a$, sultán and starý.

Subtrees. A subtree of a tectogrammatical tree is a continuous subgraph of a tectogrammatical tree (a subset of its nodes and edges with a marked root node).

Root of a subtree. The root of a subtree is the node of the subtree the mother node of which (if existent) is not part of the subtree.

Expression. Linguistically relevant parts of a sentence are called expression. (Whole sentences are also expressions.)

Root of an expression. The root of an expression is short for the root of the subtree representing a given expression.

The root of a sentence is the root of the subtree corresponding to a whole sentence; i.e. it is the (only) direct daughter of the technical root node of the tectogrammatical tree.

Effective root of an expression. The effective root of an expression is the node that either has no governing node in the given tectogrammatical tree or the governing node of which is not part of the subtree representing the expression. The effective root of an expression can be identical to the root of the expression; however, sometimes it is not, e.g. in case of paratactic structures: the root node (there is only one root) is not identical to the effective root nodes (which are usually more than one).

Fig. 2.1: The root of the example sentence is the node for vystrídat se. This node is also the effective root of the sentence. The coordination starý sultán a nový sultán is represented by a subtree of the
tectogrammatical tree; the root of the subtree (the root of the coordination) is the node representing the conjunction $a$, the effective root nodes are the two nodes representing the noun sultán.

Figure 2.1. Tectogrammatical tree


Starý sultán a nový sultán se vystrídali na tri̊nu. (=lit. Old sultan and new sultan REFL changed on throne)

### 2.1. Relation between the tectogrammatical level and the lower levels

While at the morphemic level, every word of the sentence is assigned a lemma and a tag and at the analytical level, every word corresponds to a node in the analytical tree, with the appropriate analytical function, the tectogrammatical level has no such close relation to the surface form of a sentence.

The relation between the nodes of the tectogrammatical and analytical level (which is generally of the type $\mathrm{M}: \mathrm{N}$, the options $0: \mathrm{N}$ and $\mathrm{M}: 0$ included) is captured by the atree. rf attribute of the technical root of the tectogrammatical tree and by the a attribute (the value of which is a structure of the lex.rf and a/aux.rf attributes) with other nodes.

The atree .rf attribute. The atree .rf attribute refers trivially to the technical root of the analytical tree corresponding to the given tectogrammatical tree. It contains the identifier of the technical root node of the corresponding analytical tree (see Table 2.1, "Values of the atree.rf attribute").

Table 2.1. Values of the atree . rf attribute
PML reference the identifier of the technical root node of the corresponding analytical tree

The a/lex.rf and a/aux.rf attributes. The a/lex.rf attribute contains the identifier of the node at the analytical level from which the tectogrammatical node got its lexical meaning (or its biggest part). The a/aux.rf attribute contains the list of the identifiers of all analytical nodes that influence in some way or other the value of the functor, subfunctor or grammatemes of the tectogrammatical node (these are mostly analytical nodes representing so called function words like prepositions, conjunctions, auxiliaries and anaphoric words). See Table 2.2, "Values of the a/lex.rf attribute" and Table 2.3, "Values of the a/aux.rf attribute".

## Table 2.2. Values of the a/lex.rf attribute

PML reference the identifier of the node at the analytical level from which the tectogrammatical node got its lexical meaning (or its biggest part)

## Table 2.3. Values of the a/aux.rf attribute

| a list every element of which is a <br> PML reference | identifiers of the analytical nodes that influence in some way or <br> other the value of the functor, subfunctor or grammatemes of the <br> tectogrammatical node |
| :--- | :--- |

The values of these attributes conform to the following rules:
a. If the tectogrammatical node has no analytical counterpart, both attributes are empty.

Example:

- Dovolil mu odejít. \{\#Cor.ACT\} (=He let him go)

A new node is added to the tectogrammatical tree, a node with the \#Cor t-lemma and the ACT functor, which has no counterpart at the tectogrammatical structure. Both the a/lex.rf and a/aux.rf attributes are empty.
b. If a tectogrammatical node (other than a newly established one with one of the t-lemmas \#Forn, \#Idph, \#EmpVerb or \#EmpNoun) corresponds to exactly one analytical node, than the a/lex.rf attribute contains the reference to the (analytical) node and the a/aux.rf is empty.

Example:

- Premiér zahájil schůzi. (=The Prime Minister opened the meeting)

Each of these words is represented by a single node in both the analytical and tectogrammatical trees. The a/lex.rf attribute of each of the tectogrammatical nodes contains the identifier of the corresponding analytical node. The a/aux.rf attribute is empty with all of the nodes.
c. If a tectogrammatical node (other than a newly established one with one of the $t$-lemmas: \#Forn, \#Idph, \#EmpVerb or \#EmpNoun) corresponds to more analytical nodes, then the a/lex.rf attribute contains the reference to the node from which the tectogrammatical node got its lexical meaning (or its bigger part) and the a/aux.rf attribute contains the list of references to the other analytical nodes, which mostly represent function words (prepositions, subordinating conjunctions, auxiliaries etc.).

Example:

- Odešli $\underline{\underline{s}}$ tím, že už by nemuseli nikdy přijít. (=lit. (They) left with that that (they) already would not_have_to never come)

In the tectogrammatical tree representing this sentence, the (single) node with the t -lemma přijít corresponds to six analytical nodes, namely: s, tím, že, by, nemuseli, přijít. The a/lex.rf attribute of the tectogrammatical node contains the identifier of the corresponding
analytical node for přijít. The a/aux.rf attribute contains the list of the identifiers of the remaining analytical nodes: the supporting expression (the prepositional phrase) and the subordinating conjunction have influence on the functor of the tectogrammatical node, the auxiliary (the conditional form of the verb být) and the modal verb have influence on the values of the grammatemes.
d. With newly established nodes with the t-lemma \#EmpVerb or \#EmpNoun, the a/lex.rf attribute is always empty since the full verb they represent is not expressed at the surface level. If no function word is expressed at the surface level either, the a/aux.rf attribute is also empty; otherwise it contains the list of references to the relevant function words (e.g. auxiliaries that are part of a complex verb form where the full verb is not expressed).

Example:

- \{\#EmpVerb.COND\} Pokud ano, dejte nám vědět. (=If yes, let us know)

A new node is added to the tectogrammatical tree, in the position of (the predicate of) the dependent clause, a node with the \#EmpVerb t-lemma and the COND functor, which corresponds to no node (no full verb) in the analytical tree. The functor value is influenced by the subordinating conjunction pokud. The a/lex.rf attribute is therefore empty, the a/aux.rf contains the identifier of the analytical node representing pokud.
e. With newly established nodes with the t-lemmas \#Idph and \#Forn, which serve for putting parts of identifying and foreign-language expressions together, into a single list (nodetype=list), the a/lex.rf attribute is always empty. If a foreign-language or identifying expression is syntactically combined with one or more function words at the analytical level, then the references to these function words are contained in the a/aux.rf attribute.

## Example:

- \{\#Forn.DIR3\} Pojede na Pikes Peak. (=He is going to Pikes Peak)

A new node is added to the tectogrammatical tree, in order to represent the foreign-language expression (as such), a node with the \#Forn t-lemma and the DIR3 functor, which corresponds to no node in the analytical tree. The functor value is influenced by the preposition na. The a/lex.rf attribute is therefore empty, the a/aux.rf contains the identifier of the analytical node representing $n a$.

NB! Units of the lower levels do not have to have counterparts at the tectogrammatical level. Thus, various graphic symbols are ignored as well as the reflexive se when part of a reflexive passive and constructions with dispositional modality.

Copied nodes. b) and c) also concern copied nodes. These are nodes representing lexical items present at the tectogrammatical level several times, which are however expressed only once at the surface level because their other occurrences were elided. The a/lex.rf and a/aux.rf attributes of the copied nodes contain the identifiers of the analytical nodes for the words present at the surface level that are relevant for the copied node, i.e. that influence its t -lemma, functor and other attributes. Cf .:

- Řešení je rozděleno na dvě části. První \{část.PAT\} se bude realizovat na našem pracovišti. (=The solution is divided into two parts. The first one will be carried out in our department.)

The prepositional phrase na části (in the first sentence) is represented by a single node in the tectogrammatical tree: the a/lex.rf attribute contains the identifier of the analytical node for the noun část, the a/aux.rf attribute contains the identifier of the analytical node for the preposition $n a$. The tectogrammatical tree for the second sentence contains a node copied from the first sentence (the one representing the prepositional phrase na části), in the position of the elided Patient. The a/lex.rf attribute of this copied node will again contain the identifier of the analytical node for the noun část; the a/aux.rf attribute will be empty, though; the preposition na has no influence on the functor of the copied node.

For more on ellipsis, see Section 6.12, "Ellipsis".
Node with the \#PersPron t-lemma. a), b) and c) also concern nodes with the \#PersPron t-lemma. Nodes with the \# PersPron t-lemma do not have to correspond to any analytical nodes; then the rules in a) are followed. Cf.:

- \{\#PersPron.ACT\} Přišel. (=He came)

The node with the \#PersPron t-lemma corresponds to no analytical node. Both the a/lex.rf and a/aux.rf attributes are empty.

When a node with the \#PersPron t-lemma represents a personal or reflexive pronoun present at the surface level, the rules in b) or c) are followed. The a/lex.rf attribute contains the identifier of the analytical node representing the pronoun. The a/aux.rf attribute contains the identifiers of (possible) function words. Cf.:

- On přišel. (=He came)

The personal pronoun on, even when expressed, is represented by a node with the \#PersPron t -lemma. The a/lex.rf attribute of the this node contains the identifier of the analytical node representing the pronoun on. The a/aux.rf attribute is empty.

- Přišel pro něj. (=He came for him)

The prepositional phrase pro něj is represented by a node with the \#PersPron t-lemma. The a/lex.rf attribute of the this node contains the identifier of the analytical node representing the pronoun něj. The a/aux.rf attribute contains the identifier of the analytical node for the preposition pro.

Node with the \#Rcp t-lemma. a), b) and c) also concern nodes with the \#Rcp t-lemma. Nodes with the \#Rcp t-lemma do not have to correspond to any analytical nodes; then, the rules in a) are followed. Cf.:

- \{\#Rcp.ADDR \} Státy spolu obchodují. (=The states trade with each other)

The reciprocal relation in this sentence is captured by adding a new node into the structure, one with the \#Rcp t-lemma. A node with the \#Rcp t-lemma corresponds to no analytical node. Both the a/lex.rf and a/aux.rf attributes are empty.

The rules in b) or c) are applied in those cases when the surface form contains some formal indication of reciprocity. The a/lex.rf attribute contains the identifier of the analytical node representing the reciprocal pronoun se. The a/aux.rf attribute contains the identifier of the analytical node representing a preposition - if present. Cf.:

- Pavel a Martin se potkali. \{\#Rcp.PAT\} (=lit. Pavel and Martin REFL met)

The reciprocal relation in this sentence is captured by adding a new node to the structure, one with the \#Rcp t-lemma. The a/lex.rf attribute of the this node contains the identifier of the analytical node representing se. The a/aux.rf attribute is empty.

- Martin a Radek se mezi sebou domluvili. \{\#Rcp.ADDR\} (=Martin and Radek made an arrangement; lit. between themselves)

The reciprocal relation in this sentence is captured by adding a new node into the structure, one with the \#Rcp t-lemma. The a/lex.rf attribute of the this node contains the identifier of the analytical node representing se. The a/aux.rf attribute contains the identifier of the analytical node for the preposition mezi.

For more on reciprocity, see Section 6.2.4.2, "Reciprocity").
!!! References to prepositions, subordinating conjunctions and supporting expressions were checked after the annotation was finished, so they can be considered reliable. The situation regarding references to auxiliary and modal verbs is different: they were not checked. Also the a/aux.rf attribute values with copied nodes were checked only partially. All attribute values remained without any change (which we suppose is correct) with those copied nodes the governing node of which has the same tlemma as the copied node. It was also tested whether the copied nodes contain references to only one conjunction or preposition in the a/aux.rf attribute.

## Chapter 3. Node types

Tectogrammatical tree nodes are divided into eight groups; these are called node types. The node types are defined either on the basis of the tectogrammatical lemma (t-lemma, see Chapter 4, Tectogrammatical lemma (t-lemma)) assigned to a node, or on the basis of its functor, or both.

For any node type, essentially the same rules regarding direct daughter nodes (of a given node) apply.
The following node types are recognized:

- technical root node (see Section 3.1, "The technical root node"),
- atomic nodes (see Section 3.2, "Atomic nodes"),
- paratactic structure root nodes (see Section 3.3, "Paratactic structure root nodes"),
- list structure root nodes (see Section 3.4, "List structure root nodes"),
- nodes representing foreign-language expressions (see Section 3.5, "Nodes representing foreignlanguage expressions"),
- nodes representing the dependent parts of idiomatic expressions (see Section 3.6, "Nodes representing the dependent parts of idiomatic expressions"),
- complex nodes (see Section 3.7, "Complex nodes"),
- quasi-complex nodes (see Section 3.8, "Quasi-complex nodes"),

The node type information is encoded in the value of the nodet ype attribute. The nodetype attribute has eight possible values and applies to every node in the tectogrammatical tree. The attribute values are listed in Table 3.1, "Values of the nodet ype attribute".

Table 3.1. Values of the nodetype attribute

| root | technical root node |
| :--- | :--- |
| atom | atomic node |
| coap | paratactic structure root node |
| list | list structure root node |
| fphr | node representing a foreign-language expression |
| dphr | node representing the dependent part of an idiomatic expression |
| complex | complex node |
| qcomplex | quasi-complex node |

Node-type hierarchy. The node-type hierarchy is presented in Fig. 3.1. The abbreviations on the second level are the values of the nodetype attribute. Complex nodes are further divided (as the only node type): into four groups (semantic nouns, semantic adjectives, semantic adverbs and semantic verbs). All these categories (semantic word categories/parts of speech), except for the semantic verbs, are further classified. The inner structure of these semantic categories is described in Section 5.2.1, "Relation between the semantic and traditional parts of speech"; see also Fig. 5.2, Fig. 5.3 and Fig. 5.4.

Figure 3.1. Node-type hierarchy.


### 3.1. The technical root node

```
nodetype= root
```

The technical root of a tectogrammatical tree is an artificial node with special attribute values, which include the sentence identification in the corpus, in the first place; see Table 11.1, "Attributes of the technical root node of a tectogrammatical tree"). The root of a tectogrammatical tree is called technical root node. The value in its nodet ype attribute is always root.

The technical root of a tectogrammatical tree is assigned neither the attribute functor nor the attribute t_lemma.

The technical root node has always exactly one daughter node, which is either the root node of a paratactic structure (see Section 3.3, "Paratactic structure root nodes"), or the effective root node of an independent clause (verbal, or non-verbal; see Section 6.4, "Verbal and non-verbal clauses"), i.e. a node bearing one of the following functors: PRED, DENOM, VOCAT, PARTL, PAR; see Section 7.1, "Functors for the effective roots of independent clauses").

### 3.2. Atomic nodes

nodetype $=$ atom
Atomic nodes are assigned one of the following functors: ATT, CM, INTF, MOD, PARTL, PREC or RHEM (see Section 7.7, "Functors for rhematizers, sentence, linking and modal adverbial expressions" and Section 7.12.4, "Functor for conjunction modifiers (CM)").

The t-lemmas assigned to atomic nodes are speaker-oriented expressions, adverbs of attitude (ATT), intensifying expressions (INTF) or modal expressions (MOD), also text connectives (PREC), rhematizers/focalizers (RHEM), syntactic negation, represented by a node with the t-lemma substitute \#Neg (see Section 4.4, "T-lemma substitutes") and conjunction modifiers (usually adverbial; CM).

Atomic nodes have a t-lemma, a functor and other attributes. They have no grammatemes.
Atomic nodes usually have no daughter nodes.

### 3.3. Paratactic structure root nodes

nodetype = coap
Paratactic structure root nodes have one of the following functors: CONJ, ADVS, CSQ, DISJ, GRAD, REAS, CONFR, CONTRA, OPER or APPS (viz Section 7.12, "Functors expressing the relations between the members of paratactic structures").

The t-lemmas assigned to these nodes may be conjunctions (used with coordination and apposition; e.g.: a (=and), ale (=but), kdežto (=whereas/while)), t-lemma substitutes for (syntactically relevant) punctuation marks (e.g.: \#Comma, \#Dash, \#Colon, \#Separ, see Section 4.4, "T-lemma substitutes") or symbols referring to mathematical operations and intervals (e.g.: +, krát (=times), od_do (=fromto).).

Nodes of this type have a t-lemma, one of the functors above and other attributes. Paratactic structure root nodes have no grammatemes.

The following node types can be immediate daughters of paratactic structure root nodes:

- nodes representing terminal members of paratactic structures (i.e. the actual members of paratactic expressions; the value assigned to the nodetype attribute is usually complex),
- root nodes of (embedded) paratactic structures (nodetype = coap),
- nodes that modify all members of the paratactic structure simultaneously (so called shared modifiers; the value of the nodetype attribute is usually complex or qcomplex),
- nodes assigned to rhematizers taking scope over shared modifiers (functor = RHEM, nodetype = atom),
- nodes modifying the paratactic structure root node itself (these are conjunction modifiers with the functor CM; nodetype = atom).

For a discussion of paratactic structures (and their analysis), see Section 6.6, "Parataxis".

### 3.4. List structure root nodes

```
nodetype = list
```

List structure root nodes are nodes assigned the t-lemmas \# Idph or \#Forn.
The function of these nodes is to assemble separate nodes into a list (structure). List structure root nodes are nodes that have no counterpart in the surface structure of a sentence; such a node is added into the structure at the tectogrammatical level and is assigned a functor expressing the function of the dependent nodes (as a whole) in a given sentence.

Nodes with the \# Idph t-lemma are the roots of structures that have the function of a title (of a book etc.). For more details see Section 8.8.1.3, "Identification structure".

Nodes with the \#Forn t-lemma assemble (separate) members of a foreign-language expression into a list structure. Individual nodes of a foreign-language expression are sisters with respect to each other, they are assigned the FPHR functor (nodetype=fphr; see Section 3.5, "Nodes representing foreignlanguage expressions") and their order corresponds to the surface word order (for more details see Section 8.9, "Foreign-language expressions"). In this respect, the nodes with the \#Forn t-lemma differ from the nodes with the \# Idph t-lemma: the dependent nodes of the latter form a tree structure.

List structure root nodes have a t-lemma, functor and other attributes. List structure root nodes have no grammatemes.

There are two possible types of nodes dependent on list structure root nodes:

- members of the list:
- (if the governing node has the \#Forn t-lemma:)
- nodes with the FPHR functor (nodetype=fphr), which have no daughter nodes.
- (if the dominating node has the \#Idph lemma:)
- a subtree representing a title, whose effective root nodes have the ID functor.
- list modifiers: all other nodes, which are not members of the list (the value of the attribute nodetype is usually complex),

Unlike shared modifiers of paratactic structures, these do not modify each member of a list but rather a list as a whole.

### 3.5. Nodes representing foreign-language expressions

```
nodetype= fphr
```

Nodes representing foreign-language expressions are nodes with the FPHR functor (see Section 7.8.3, "FPHR").

Each member of a foreign-language expression (including punctuation marks) is represented by a separate node. These nodes (with the FPHR functor) have t-lemmas identical to the surface forms. All members of a foreign-language expression have the FPHR functor and are sisters with respect to each other; their mother node is a node with the \#Forn t-lemma (nodet ype=list; see Section 3.4, "List structure root nodes"); their order corresponds to the surface word order. A foreign-language expression functions as a single unit in the structure of a sentence; it has one functor as a whole, which is attached to the node with the \#Forn t-lemma.

Nodes of this type have a t-lemma, functor and other attributes. Nodes representing foreign-language expressions have no grammatemes.

Nodes of this type have no daughter nodes.
For the analysis of foreign-language expressions see Section 8.9, "Foreign-language expressions".

### 3.6. Nodes representing the dependent parts of idiomatic expressions

nodetype $=$ dphr

Nodes representing the dependent parts of idiomatic expressions are nodes with the FPHR functor (see Section 7.8.2, "DPHR").

The t-lemma of a node with the DPHR functor is the dependent part of an idiomatic expression, i.e. an expression that forms a lexical unit with the t -lemma of its mother node; the meaning of the whole is usually not compositional. In case the idiomatic expression has more dependent parts, these are conjoined into one large t-lemma with the DPHR functor and they are all connected by the underscore mark; the order of the parts is identical to the surface word order (see Section 4.3.1, "Multi-word t-lemma").

## Node types

Nodes of this type have a t-lemma, functor and other attributes. Nodes representing dependent parts of idiomatic expressions have no grammatemes.

Nodes of this type have no daughter nodes; for exceptions see Section 6.8.2, "Verbal idioms".
For the analysis of idiomatic expressions see Section 6.8, "Idioms (phrasemes)".
Similar to the nodes with the DPHR functor are nodes that have the CPHR functor (see Section 7.8.1, "CPHR"). Also these nodes form lexical units with their mother nodes; what is different is that most of the lexical information is carried by the node with the CPHR functor, the $t$-lemma of its mother node is poor in its semantic content. The connection between a node with the CPHR functor and its mother node is usually looser than in the case of nodes with the DPHR functor; it is necessary that the morphological categories of the CPHR node be encoded in its grammatemes. This means that nodes with the CPHR functor belong to the class of complex nodes (i.e. nodes which are assigned grammatemes).

### 3.7. Complex nodes

nodetype $=$ complex
Complex nodes are nodes representing autosemantic lexical units (nouns, adjectives, verbs, adverbs, numerals and pronouns). Autosemantic lexical units express morphological categories (in contrast to synsemantics, which are represented by nodes of other types). To be represented properly, autosemantic lexical units need (apart from a t-lemma and functor) grammatemes (the tectogrammatical correlates of morphological categories, see Section 5.5, "Grammatemes"), and possibly other attributes. The fact that complex nodes have grammatemes sets these nodes apart from all other types of nodes.

The t-lemma assigned to a complex node (representing a word present at the surface level) is usually the basic form of the relevant lexical entry (i.e. a sequence of graphemes representing the basic form). An exception to the rule are complex nodes representing personal and possessive pronouns: these make use of the t-lemma substitute \#PersPron (see Section 4.4, "T-lemma substitutes").

Also (newly established) nodes that are copies of other nodes (their t-lemma is identical to the t-lemma of the node that is being copied) and (newly established) nodes with the \#PersPron t - lemma, as well as those with the t-lemma substitute \#EmpNoun belong to the class of complex nodes.

Newly established nodes with the \#PersPron t-lemma (which is not different from the t-lemma corresponding to a regular pronoun, present at the surface level) occupy the position of non-expressed (deleted) personal pronouns (usually in the argument position). The information brought about by the morphological categories (of the pronoun), some of which are reflected in the verb's form at the surface level, has to be encoded in the value of the relevant grammatemes; this is mainly the information regarding the number and gender of the null pronoun.

Newly established nodes with the \#EmpNoun t-lemma are inserted as the mothers of nodes corresponding to adjectives that cannot have a nominal function themselves. Such a new node contains the information concerning some of the morphological categories of the dependent adjective (the values of its number and gender, see Section 5.6.1.2, "Definite pronominal semantic nouns: demonstratives"). Newly established nodes with the t-lemma substitutes other than \#PersPron or \#EmpNoun belong to the class of quasi-complex nodes (see Section 3.8, "Quasi-complex nodes").

Complex nodes are divided into four basic groups, so called semantic parts of speech, which are further classified (see Section 5.2, "Semantic parts of speech"). The information about the semantic category of a complex node is encoded in the sempos attribute (see Section 5.3, "Attributes superior to grammatemes"). It follows from the membership in a semantic (part-of-speech) category which grammatemes are relevant for a given node (i.e. by indicating the value of the sempos attribute the set of relevant grammatemes is unequivocally determined).

Complex nodes can be modified by other complex nodes or by all other kinds of nodes with the exception of the technical root of a sentence (see Section 3.1, "The technical root node") and nodes with the

## Node types

FPHR functor (see Section 3.5, "Nodes representing foreign-language expressions"). The order of the nodes dependent on a complex node is subject to the rules for the deep word order (see Section 10.3, "Communicative dynamism").

### 3.8. Quasi-complex nodes

nodetype $=$ qcomplex
Quasi-complex nodes are a special type of nodes that occupy the same position (have the same functor) as complex nodes but they have no grammatemes, since lexical units corresponding to these nodes have no morphological categories. They are either newly established nodes occupying positions of all kinds of modifications, or they are nodes representing punctuation and other symbols present at the surface level. Both newly established nodes and nodes representing symbols present at the surface level have t-lemma substitutes, such as:

- some of the following t-lemmas (in the argument/adjunct positions): \#AsMuch, \#Cor, \#EmpVerb, \#Equal, \#Gen, \#Oblfm, \#QCor, \#Rcp, \#Some, \#Total, \#Unsp (nodes with these t-lemmas are always quasi-complex nodes),
- or some of the following t-lemmas (corresponding to non-alphabetical and non-numerical symbols): \#Amp, \#Ast, or \#Percnt (also these nodes are always quasi-complex),
- or some of the t-lemmas representing punctuation marks: \#Bracket, \#Comma, \#Colon, \#Dash, \#Period, \#Period3 or \#Slash. Nodes with these t-lemmas are quasi-complex only in the case their functor is different from any functor usually assigned to paratactic structure root nodes (e.g. if they are assigned the PRED functor; otherwise they are analysed as paratactic structure root nodes, see Section 3.3, "Paratactic structure root nodes").

For the description of the functors just mentioned, see Section 4.4, "T-lemma substitutes".
Quasi-complex nodes are defined by a t-lemma, functor and other attributes; they have no grammatemes.

## Chapter 4. Tectogrammatical lemma (t-lemma)

The tectogrammatical lemma of a node (further t-lemma) is one of the attributes of the node in a tectogrammatical tree (the $t$ lemma attribute). The value of the $t$ _lemma attribute is either the node's lexical value (i.e. its basic form, represented as a sequence of graphemes), or an "artificial" value (the so called t-lemma substitute, see Section 4.4, "T-lemma substitutes").

Essentially, it is possible to distinguish two kinds of nodes according to their t-lemmas:

- nodes representing lexical units present at the surface level of the sentence - the t-lemma of such a node is the basic form of the given lexical unit - and newly established nodes, which are copies of other nodes, present at the surface level (the t-lemmas of the copies are not different from the t -lemmas of the copied nodes, so there is no need to treat them differently),
- newly established nodes with t-lemma substitutes
(Exceptions to this rough division are described below.)


### 4.1. Morphological lemma (m-lemma)

Sometimes, the notion of the morphological lemma is useful, although it has no direct relation to the tectogrammatical level.

A node's morphological lemma ( $m$-lemma) is the basic form of a word (e.g. the nominative singular, the infinitive) that is assigned to words (word forms) at the morphological level.

The actual lemmas, which represent the output of the morphological parser, can contain other information, too, apart from the specification of the basic/default form, e.g. technical suffixes characterizing semantic or word-formation features of a given lexical unit: ( for example: "vazba-2_^(spojení)", "protiprávnost_^(*3ý)". These suffixes can be ignored here; in the examples above, the m-lemmas are "vazba" and "protiprávnost" respectively.

### 4.2. The relation between a node's t-lemma and m-lemma and between its t-lemma and word form

As for the nodes representing words that are present at the surface level, their t-lemma is usually identical to their m-lemma.

However, some words have a special t-lemma, which has no counterpart among morphological lemmas, (the so called t-lemma substitute, see Section 4.4, "T-lemma substitutes"; cf. a), b) and j) in the list), or they have a t-lemma that corresponds to the m-lemma of a different word (cf. c) through i) in the list), or a multi-word t-lemma that corresponds to two (or more) m-lemmas (cf. k) in the list). In still other cases, the $t$-lemma corresponds to the surface form of a given word (cf. l) in the list). Paratactic structure root nodes have so called representative (i.e. typical) t-lemmas (cf. m) in the list).

The relevant cases are the following:
a. personal pronouns (including the reflexive $s i$ and $s e$ ) have the t-lemma substitute \#PersPron (see Section 4.4, "T-lemma substitutes").

Examples:

- tobě (=you.DAT/LOC) is represented by the \#PersPron t-lemma;
- oni (=they) $\rightarrow$ \#PersPron;
- sobě (=self.DAT/LOC) $\rightarrow$ \# PersPron.

See Section 5.1, "Syntactic and lexical derivation" and Section 5.6.1.3, "Definite pronominal semantic nouns: personal pronouns".
b. possessive pronouns (including the reflexive svij) are also represented by the $t$-lemma substitute \#PersPron (see Section 4.4, "T-lemma substitutes").

Examples:

- nás (=our) is assigned the \#PersPron t-lemma;
- její (=her) $\rightarrow$ \#PersPron;
- svoje (=self's) $\rightarrow$ \# PersPron.

See Section 5.1, "Syntactic and lexical derivation" and Section 5.6.1.3, "Definite pronominal semantic nouns: personal pronouns".
c. possessive adjectives are represented by the t-lemmas of the corresponding nouns.

Examples:

- matčin (=mother's) is represented by the t-lemma matka (=mother);
- Pavlova (=Pavel's) $\rightarrow$ Pavel.

See Section 5.1, "Syntactic and lexical derivation" and Section 5.6.1.1, "Denominating semantic nouns".
d. the short form of an adjective is represented by its basic form (the long one)

## Examples:

- zklamán (=disappointed) is represented by the t-lemma zklamaný;
- spokojena (=satisfied.fem., short form) $\rightarrow$ spokojený (=satisfied.masc., long form);
- ochoten (=willing) $\rightarrow$ ochotný.

NB! Passive participles are represented by the infinitive; for example pozván (=invited) is represented by a node with the t -lemma pozvat (=invite).
e. deadjectival adverbs are represented by nodes with the $t$-lemma of the corresponding adjective.

Example:

- pěkně (=nicely) is represented by a node with the t-lemma pěkný (=nice).

See Section 5.1, "Syntactic and lexical derivation" and Section 5.6.2.1, "Denominating semantic adjectives".
f. directional adverbs have locative adverbs as their t-lemmas.

## Examples:

- tudy (=this_way) is represented by a node with the t-lemma tady (=here);
- sem (=here.directional) $\rightarrow$ tady (=here.locative).

See Section 5.1, "Syntactic and lexical derivation" and Section 5.6.3, "Semantic adverbs".
g. various temporal adverbs have as their t-lemmas adverbs with the (corresponding) basic temporal meaning (i.e. the one answering the question "kdy" (=when).

Examples:

- doted' (=until_now) has the t-lemma ted' (=now);
- doposud (=until_now) $\rightarrow$ ted' $(=n o w)$.

See Section 5.1, "Syntactic and lexical derivation" and Section 5.6.3, "Semantic adverbs".
h. different types of numerals have t-lemmas identical to the corresponding cardinal numerals.

Examples:

- trojí (=three_kinds_of) is represented by a node with the t-lemma tři (=three);
- třetina $(=$ one_third $) \rightarrow$ tři $(=$ three $)$;
- kolikátý (=how_many.ordinal) $\rightarrow$ kolik (=how_many.cardinal);
- pětkrát (=five_times) $\rightarrow$ pět ( $=$ five).

See Section 5.1, "Syntactic and lexical derivation" and Section 5.6.1.5, "Definite quantificational semantic nouns", Section 5.6.2.4, "Definite quantificational semantic adjectives" a Section 5.6.2.5, "Indefinite quantificational semantic adjectives".
i. different types of pronouns, pronominal adverbs and numerals are represented by nodes with the t -lemma of the corresponding relative pronoun (pronominal adverb or numeral).

Examples:

- někdo (=someone) has the t-lemma kdo (=who);
- nic (=nothing) $\rightarrow$ co (=what);
- všechen $(=$ all $) \rightarrow$ co (=what);
- žádný (=none) $\rightarrow$ který (=which).

See Section 5.1, "Syntactic and lexical derivation" and Section 5.6.1.4, "Indefinite pronominal semantic nouns", Section 5.6.2.3, "Indefinite pronominal semantic adjectives", Section 5.6.3.5, "Definite pronominal semantic adverbs" a Section 5.6.3.6, "Indefinite pronominal semantic adverbs".
j. punctuation marks and other symbols are assigned t-lemma substitutes (similarly to personal and possessive pronouns). See Section 4.4, "T-lemma substitutes".

Examples:

- the comma has the t-lemma \#Comma;
- dash $\rightarrow$ \#Colon.
k. expressions that are built out of more parts (words) but have a single meaning are in some cases represented by a single node with a single t-lemma in which the parts are put together. Such a tlemma is called multi-word t-lemma; for more details see Section 4.3, "T-lemmas of multi-word (complex) lexical units".


## Examples:

- smát se (=laugh; lit. laugh REFL) is represented by a single node whose t-lemma is smát_se;
- a nebo (=or; literally and_or) $\rightarrow$ a_nebo.
- van Beethoven $\rightarrow$ van_Beethoven.

1. frozen verbal forms (finite forms, as well as transgressives (gerunds) and infinitives, i.e. forms having adverbial functions), are represented by nodes the t -lemmas of which are identical to the surface form of such an expression, e.g. myslím, soudě (=I_think, judging). Similarly, foreignlanguage expressions (with the FPHR functor) are assigned t-lemmas that are not different from the corresponding surface forms.

See also Section 6.5.1, "Dependent verbal clauses without a finite verb form" and Section 8.9, "Foreign-language expressions".
m. different variants of conjunctions and other connectives and operators are represented by a node (nodetype=coap) the t-lemma of which corresponds to the m-lemma of one of the variants (this is the so called representative t -lemma). The representative t-lemma may also be complex; cf. k) in the list and Section 4.3.1, "Multi-word t-lemma".

## Examples:

- both bud' (=either) - nebo (=or) and bud'to - nebo are represented by a single node with the representative t-lemma bud'_nebo;
- od (=from) - přes (=via) - do (=to), as well as od -přes -po (=to) and od -přes - $k(=t o) \rightarrow$ od_přes_do.

See also Section 8.16, "Co-ordinating connectives and operators".
The choice of the $t$-lemma described in b), c) and e) through i) is a result of taking the derivational processes into account. In principle, derived expressions have the same $t$-lemma as the base expressions. For the information regarding the relevant derivation types, see Section 5.1, "Syntactic and lexical derivation".

Newly established nodes may be assigned one of the t-lemma substitutes, which do not correspond to any m-lemma; see Section 4.4, "T-lemma substitutes". As for determining the appropriate t-lemma, copied nodes are subject to the same rules as the nodes present at the surface level.

### 4.3. T-lemmas of multi-word (complex) lexical units

Some words are not independent lexical units - they form complex units with other words; such a complex unit has a single meaning, then. Such collocations of two (or more) words that have a single lexical meaning are called multi-word lexical units.

There are several possibilities of representing multi-word lexical units in the tectogrammatical trees:

- the multi-word unit is represented by a single node and all its components are part of a multi-word t-lemma (see Section 4.3.1, "Multi-word t-lemma"),
- the multi-word lexical unit is represented by a single node whose t-lemma corresponds to one of the components of the unit. The information regarding other components of the unit is encoded in the values of various grammatemes (Section 4.3.2, "Multi-word lexical units analysed as such by means of certain grammatemes"),
- the multi-word lexical unit is represented by several nodes and the fact that these form a single unit is captured by using special functors (Section 4.3.3, "Multi-word lexical units analysed as such by means of special functors"),
- the multi-word lexical unit is represented by several nodes and the fact that they form a unit is expressed by assigning them a special structure (Section 4.3.4, "Multi-word lexical units analysed as such by means of assigning them a special structure").
!!! Multi-word lexical units that are not captured as such so far. Some types of multi-word lexical units are not captured as such so far (although the relation between their components eventually is to be differentiated from that of syntactic dependency). Those are mainly:
- certain types of modal predicates (modal verb + infinitive).

For example: nemůže nepřijít (=cannot.3sg not_come); see Section 6.9.1.1, "Modal predicates".

- phase predicates (phase verb + full verb)

For example: začne plakat (=starts crying). See Section 6.9.1.2, "Phase predicates".

- quasi-modal predicates (quasi-modal/quasi-phase verb + full verb)

For example: má plán odejít (=plans to leave). See Section 6.9.2, "Quasi-modal and quasi-phase predicates".

- inflected titles (i.e. those that change their form; in contrast to those that do not - see Section 4.3.4, "Multi-word lexical units analysed as such by means of assigning them a special structure").

For example: Univerzita Karlova (=Charles University), Evropská unie (=European Union).

- other kinds of collocations, complex (multi-word) lexemes (names of various objects, institutions etc.)

For example: gramofonová deska, vysoká škola (=(gramophone) record; university/college - lit. high school).

### 4.3.1. Multi-word t-lemma

Multi-word t-lemmas are, in some cases, assigned to nodes representing multi-word (complex) lexical units. Multi-word t-lemmas contain all components of a given lexical unit (relevant at the tectogrammatical level); the components are connected by the underscore mark.

The following cases are represented by a single node with a multi-word t-lemma:

- verbs the inherent part of which is the reflexive "se" or "si".

T-lemmas assigned to verbs containing the reflexive se or si as their inherent part (for more details see Section 8.14, "The expressions "se" and "si""), are of the form: infinitive $+s e$ or $s i$.

Examples:

- smát se (=laugh REFL) is represented by a single node with the t-lemma smát_se;
- setkat se $(=$ meet $) \rightarrow$ setkat_se.
- complex conjunctions and conjunction pairs.

Examples:

- bud' (=either) - nebo (=or) is represented by a single node with the t-lemma bud'_nebo;
- jak (=as) - tak (=so) $\rightarrow$ jak_tak (=both...and);
- a nebo (=or; literally and_or) $\rightarrow$ a_nebo .

For more details see Section 8.16.1, "Co-ordinating connectives".

- complex operators.

Examples:

- od (=from) - do (=to) is represented by a single node with the t-lemma od_do;
- od (=from) - přes (=via) - do (=to) $\rightarrow$ od_přes_do.

For more details see Section 8.16.2, "Operators".

- numbers with the function of a "label".

Examples of numbers with the function of a "label" (often having more parts) are telephone numbers, post codes etc. (see Section 8.10.1.3, "Numerals with the function of a "label"").

Examples:

- 420987596281 is represented by a single node with the t-lemma 420_987_596_281;
- $27811 \rightarrow 278$ _11.
- expressions of the form 'number+adjective'.

Examples:

- 41 letý (=forty-one_years_old) is represented by a single node with the t-lemma 41_letý;
- 12 procentní (=12 per_cent.adj) $\rightarrow 12$ procentní;
- 35 stupňové $(=35$ degree.adj) $\rightarrow$ 35_stupňový;
- 90 kilometrová (=90 kilometer.adj) $\rightarrow$ 90_kilometrový;
- 28 členná ( $=28$ member.adj) $\rightarrow 28$ _členný;
- 200 hektarový (=200 hectare.adj) $\rightarrow$ 200_hektarový.
- surnames containing "van", "von", "de" etc.

Examples:

- van Gogh is represented by a single node with the t-lemma van_Gogh;
- de Vito $\rightarrow$ de_Vito;
- von Ryanưv (=von Ryan's) $\rightarrow$ von_Ryan.


## - dependent parts of idiomatic expressions.

A special case of complex expressions are dependent parts of idiomatic expressions consisting of more than one component (the functor is DPHR; see Section 6.8, "Idioms (phrasemes)"): the $t$ lemma of such a complex expression consists of all the dependent parts (incl. prepositions), linked by the underscore mark, the order being identical to the surface word order.

Examples:

- nohy na ramena (=lit. legs on shoulders), as the dependent part of the idiom vzit nohy na ramena (= lit. take legs on shoulders, meaning: to escape quickly), is represented by a single node with the t-lemma nohy_na_ramena;
- (běhá) mráz po zádech (= lit. (run) frost on (sb's) back, běhá mi z toho mráz po zádech meaning: it gives me the creeps) $\rightarrow$ mráz_po_zádech;
- (mit) hluboko do kapsy (=lit. (have) deep into (one's) pocket, meaning: to be poor) $\rightarrow$ hluboko_do_kapsy.

For more details see Section 6.8, "Idioms (phrasemes)".

### 4.3.2. Multi-word lexical units analysed as such by means of certain grammatemes

The following cases are analysed as multi-word lexical units by means of certain grammatemes:

- modal predicates.

Modal predicates (modal verb + infinitive, see Section 6.9.1.1, "Modal predicates"), are represented by a single node; however, their t-lemmas are not multi-word (in contrast to cases described in Section 4.3.1, "Multi-word t-lemma"). The t-lemma assigned to a modal predicate is the infinitive alone; the information regarding the predicate's modality is encoded in the value of the deontmod grammateme (see Section 5.5.10, "The deontmod grammateme (deontic modality)").

## Examples:

- muset odejít (=must leave) is represented by a single node with the t-lemma odejít (=leave);
- chci pracovat (=(I) want to work) $\rightarrow$ pracovat (=work).

NB! An exception to the rule are the cases when both the modal verb and the infinitive are negated (e.g. nemůžeš nepřijít (=(you) cannot not_to_come), and several other cases (see Section 6.9.1.1, "Modal predicates").

### 4.3.3. Multi-word lexical units analysed as such by means of special functors

Some multi-word lexical units can be divided into two parts (the governing part and the dependent part), each of which has its own node. The fact that those form a unit is expressed by using a special functor for the dependent part. This applies to the following cases:

- complex predicates.

The dependent part has the CPHR functor.
Example:

- mit dojem (=have the impression) is represented by two nodes with the t-lemmas mit (=have) and dojem (=impression). The node with the t-lemma dojem has the CPHR functor.

For the analysis of complex predicates see Section 6.9.3, "Complex predicates".

- idiomatic expressions.

The dependent part has the DPHR functor.
Example:

- vzit nohy na ramena (=lit. take (one's) legs on (one's) shoulders) is represented by two nodes with the t -lemmas vzit and nohy_na_ramena. The node with the t-lemma nohy_na_ramena has the DPHR functor. For a discussion concerning the appropriate form of the $t$-lemma assigned to the dependent part of an idiomatic expression, see Section 4.3.1, "Multi-word t-lemma".

For the analysis of idiomatic expressions Section 6.8, "Idioms (phrasemes)".

- complex (coordinating) connectives.

A node representing a conjunction modifier (i.e. the dependent part of a complex connective) has the CM functor.

Example:

- a dokonce (=lit. and even) is represented by two nodes with the t-lemmas $a$ and dokonce. The node with the t-lemma dokonce has the CM functor.

For the analysis of coordinating connectives, see Section 8.16, "Co-ordinating connectives and operators".

### 4.3.4. Multi-word lexical units analysed as such by means of assigning them a special structure

Some multi-word lexical units are represented as consisting of several separate nodes and their complex character is captured by assigning them a special structure. This applies mainly to:

- non-inflected titles.

Individual parts of a title are represented by individual nodes. The complex character of the whole expression is indicated by assigning the effective root node of the relevant subtree the ID functor. In some cases, this analysis is supported also by adding a node with the t-lemma substitute \# Idph to the structure. This node is on top of the whole subtree representing the title (for the analysis of titles, see Section 8.8, "Identifying expressions").

### 4.4. T-lemma substitutes

The term t-lemma substitutes is used for artificial t-lemmas beginning with \#. T-lemma substitutes are assigned to:

- newly established nodes that are not copies of other nodes.
(Copied nodes have the $t$-lemmas of the original nodes.)
- nodes representing selected types of words/symbols present at the surface structure. These are:
- personal and possessive pronouns.

Nodes representing personal and possessive pronouns have the \# PersPron t-lemma.

- punctuation marks and other symbols.

Nodes representing punctuation marks and other (non-alphabetical/non-numerical) symbols have the following t -lemma substitutes:

- \& is represented by a node with the \#Amp t-lemma;
- $\% \rightarrow$ \#Percnt;
-     * $\rightarrow$ \#st;
- period $\rightarrow$ \#Period;
- three dots $\rightarrow$ \#Period3;
- comma $\rightarrow$ \#Comma;
- colon $\rightarrow$ \#Colon;
- dash and hyphen $\rightarrow$ \# Dash;
- slash $\rightarrow$ \#Slash;
- semicolon $\rightarrow$ \#Semicolon;
- bracket $\rightarrow$ \#Bracket.

NB! Not every punctuation mark is represented by a node at the tectogrammatical level. For more details see Section 8.18, "Punctuation".
!!! The punctuation marks with the corresponding t-lemma substitutes \#Colon, \#Dash or \#Slash are represented only in the case they are relevant for the semantic interpretation. For example, a colon (node) representing division, proportion, introducing direct speech etc. has always the \#Colon t-lemma.

- syntactic negation.

A node representing syntactic negation (expressed by attaching the prefix ne- to a verb) has the \#Neg t-lemma. For more details see Section 8.13, "Expressions of negation and affirmation".

List of all t-lemma substitutes (in alphabetical order). The following list comprises all t-lemma substitutes occurring in tectogrammatical trees. The t-lemmas are in alphabetical order and it is always indicated whether they represent a word/symbol present at the surface structure or whether they correspond to a newly established node (with no counterpart at the surface level). Furthermore, it is specified which node type is usually connected with a particular t-lemma.

- \#Amp
$=$ the $t$-lemma assigned to the " $\& "$ symbol (present at the surface level).
nodetype = coap
- \#AsMuch
$=$ the t -lemma assigned to a newly established node used for introducing consecutive clauses. Fore more details see Section 8.7, "Constructions with a dependent consecutive clause".
nodetype $=$ qcomplex
- \#Ast
$=$ the $t$-lemma assigned to a node representing the " *" symbol (present at the surface level).
nodetype $=$ qcomplex
- \#Benef
$=$ the t -lemma assigned to a newly established node representing the beneficiary (not present at the surface level) in control constructions. For more details see Section 9.2.4, "Control".
nodetype = qcomplex
- \#Bracket
$=$ the $t$-lemma assigned to a node representing a bracket (" (" or ") ") (present at the surface level). For more details see Section 8.19.2, "Text in brackets and within dashes".
nodetype = coap
- \#Colon
$=$ the t -lemma assigned to a node representing the ":" symbol (present at the surface level). For more details see Section 8.18, "Punctuation".
nodetype $=$ coap, or nodetype $=$ qcomplex
- \#Comma
$=$ the t -lemma assigned to a node representing the comma (",") (present at the surface level). For more details see Section 8.18, "Punctuation".
nodetype $=$ coap, or nodetype $=$ qcomplex
- \#Cor
$=$ the $t$-lemma assigned to a newly established node representing the (usually inexpressible) controllee in control constructions. For more details see Section 9.2.4, "Control".
nodetype $=$ qcomplex
- \#Dash
$=$ the $t$-lemma assigned to a node representing a dash or hyphen (present at the surface level). For more details see Section 8.18, "Punctuation".
nodetype $=$ coap, or nodetype $=$ qcomplex
- \#EmpNoun
$=$ the t -lemma assigned to newly established nodes representing non-expressed nouns (i.e. absent at the surface level) governing syntactic adjectives. For more details see Section 6.12.1.2.2, "Grammatical ellipsis of the governing noun".
nodetype = complex
- \#EmpVerb
$=$ the t -lemma assigned to newly established nodes representing verbal predicates absent at the surface structure. For more details see Section 6.12.1.1.2, "Grammatical ellipsis of the governing verb".
nodetype = qcomplex
- \#Equal
$=$ the t -lemma assigned to newly established nodes used in comparative constructions. For more details see Section 8.4, "Constructions with the meaning of "comparison"".
nodetype = qcomplex
- \#Forn
$=$ the t -lemma assigned to newly established nodes representing the governing node of a foreignlanguage expression. For more details see Section 8.9, "Foreign-language expressions".
nodetype = list
- \#Gen
$=$ the t-lemma assigned to a newly established node representing a general participant absent at the surface level. For more details see Section 6.2.4.1, "General arguments and unspecified Actors".
nodetype = qcomplex
- \#Idph
$=$ the t -lemma assigned to a newly established node serving as an auxiliary node in so called identifying expressions. For more details see Section 8.8 , "Identifying expressions".
nodetype $=$ list
- \#Neg
$=$ the t -lemma used for the syntactic negation (expressed by the ne- prefix) For more details see Section 8.13, "Expressions of negation and affirmation".
nodetype = atom
- \#Oblfm
$=$ the t -lemma assigned to a newly established node representing an obligatory adjunct absent at the surface level. For more details see Section 6.12.2.1.3, "Ellipsis of an obligatory free modification (t-lemma substitutes \#Oblfm and \#Rcp)".
nodetype = qcomplex
- \#Percnt
$=$ the $t$-lemma assigned to the " $\%$ " symbol (present at the surface level).
nodetype = qcomplex
- \#Period
$=$ the t-lemma assigned to a node representing a period (".") (present at the surface level). For more details see Section 8.18, "Punctuation".
nodetype = coap
- \#Period3
$=$ the t -lemma assigned to nodes representing three dots ("...") (present at the surface level). For more details see Section 8.18, "Punctuation".
nodetype = coap, nodetype = qcomplex
- \#PersPron
$=$ the t -lemma assigned to a node representing personal or possessive pronouns (incl. the reflexives); this applies both to newly established nodes and to those present at the surface level. If a node with the \#PersPron t-lemma is newly established, deletion is involved. For more details see Section 6.12.2.1.1, "Textual ellipsis of an obligatory argument (the t-lemma substitutes \#PersPron, \#Cor, \#QCor a \#Rcp)".
nodetype = complex
- \#QCor
$=$ the t -lemma assigned to newly established nodes representing a (usually inexpressible) valency modification in quasi-control constructions. For more details see Section 9.2.5, "Quasi-control".
nodetype $=$ qcomplex
- \#Rcp
$=$ the t -lemma assigned to newly established nodes representing participants that are left out as a result of reciprocation. For more details see Section 6.2.4.2, "Reciprocity".
nodetype = qcomplex
- \#Semicolon
$=$ the t -lemma assigned to a node representing the " ;" symbol (present at the surface level). For more details see Section 8.18, "Punctuation".
nodetype = coap
- \#Separ
$=$ the t -lemma assigned to an auxiliary node occasionally used in coordination constructions (with no counterpart at the surface level). For more details see Section 6.6.1, "Representing parataxis in a tectogrammatical tree".
nodetype = coap
- \#Slash
$=$ the t-lemma assigned to a node representing the "/" symbol (present at the surface level). For more details see Section 8.18, "Punctuation".
nodetype = coap
- \#Some
= the t -lemma assigned to newly established nodes representing the nominal part of verbonominal predicates (not present at the surface level), used mainly in comparative constructions. For more details see Section 8.4, "Constructions with the meaning of "comparison"".
nodetype $=$ qcomplex
- \#Total
$=$ the t-lemma assigned to a newly established node, needed in a special kind of constructions that are used for describing an exception to something. For more details see Section 8.6, "Constructions signifying "restriction" and "exceptional conjoining"".
nodetype = qcomplex
- \#Unsp
$=$ the t -lemma assigned to newly established nodes representing valency modifications not present at the surface level the semantic content of which is very vague (non-specific). For more details see Section 6.2.4.1, "General arguments and unspecified Actors".
nodetype = qcomplex


### 4.5. T-lemmas and node types

For every node type we can specify the following:

- nodetype $=$ root (see Section 3.1, "The technical root node").

The technical root node of a tectogrammatical tree has no $t$ _lemma attribute.

- nodetype $=$ atom (see Section 3.2, "Atomic nodes").

The t-lemmas assigned to this kind of nodes usually correspond to their m-lemmas. An exception to the rule are nodes representing syntactic negation; these are assigned the t-lemma substitute \#Neg.

- nodetype = coap (see Section 3.3, "Paratactic structure root nodes").

Paratactic structure root nodes have so called representative t-lemmas, which usually correspond to their m-lemmas (e.g.: a (=and), nebo (=or), krát (=times); sometimes, also non-alphabetical/nonnumerical symbols are used, e.g.: +). Nodes representing complex conjunctions and conjunction pairs have multi-word t-lemmas (e.g.: bud"nebo (=either_or); see Section 4.3.1, "Multi-word tlemma"); this is the case of some operators, too (e.g.: od_do (=from_to)).

Punctuation marks are represented by nodes with t-lemma substitutes (e.g.: \#Comma, \# Dash etc.; see Section 4.4, "T-lemma substitutes").

For the analysis of coordinating connectives and operators, see Section 8.16, "Co-ordinating connectives and operators".

- nodetype $=$ list (see Section 3.4, "List structure root nodes").

List structure root nodes have the following t-lemma substitutes: \# Idph and \#Forn.

- nodetype $=$ fphr (see Section 3.5, "Nodes representing foreign-language expressions").

The t-lemmas assigned to nodes representing foreign-language expressions correspond to their surface forms.

- nodetype $=\mathrm{dph} r$ (see Section 3.6, "Nodes representing the dependent parts of idiomatic expressions").

The t-lemmas assigned to nodes representing the dependent parts of idiomatic expressions are the actual word forms present at the surface level. If the dependent part of an idiomatic expression contains more components, its t-lemma is complex, which means that the node with the DPHR functor has a t-lemma containing all the components of the expression in question, in their surface form and order, connected by the underscore mark.

- nodetype $=$ complex $($ see Section 3.7, "Complex nodes").

The t-lemmas assigned to complex nodes are nouns, adjectives, numerals, verbs and adverbs (occasionally also words of other parts of speech). Often, the t-lemma and m-lemma are the same (like in the following sentence: Otec čte noviny. (=Father is reading a newspaper) - the m -lemmas $/ \mathrm{t}$ lemmas are: otec, číst, noviny (=Father, read, newspaper).

The t-lemmas are different from their respective m-lemmas in the following cases (cf. also Section 4.2, "The relation between a node's $t$-lemma and $m$-lemma and between its $t$-lemma and word form"):

- personal and possessive pronouns are represented by nodes with the \#PersPron t-lemma,
- short forms of adjectives are represented by their respective long forms (e.g. zklamán (= disappointed) is represented by a node with the t-lemma zklamany'),
- the t-lemma assigned to a reflexive verb is formed by the infinitive of the relevant verb plus the reflexive $s e$, which is connected to the verb by the underscore mark (e.g. smát_se),
- the t-lemma assigned to an expression of the form number+adjective contains both its parts, connected by the underscore mark (e.g.: 45_letý (=45 years old),
- foreign surnames containing van, von, de etc. have multi-word t-lemmas (e.g.: van_Gogh, de_Vito),
- numbers with the function of a "label", like telephone numbers, post codes etc. have multiword t-lemmas, too (see Section 8.10.1.3, "Numerals with the function of a "label""; e.g.: 420_987_596_281; 278_11).
- differences between t-lemmas and their respective m-lemmas also result from the attempt to capture derivational processes; the derived forms are represented by the $t$-lemmas of the base forms. For the analysis of the individual types, see Section 4.2, "The relation between a node's t -lemma and m -lemma and between its t -lemma and word form", in more detail also Section 5.1, "Syntactic and lexical derivation".
- nodetype $=$ qcomplex (see Section 3.8, "Quasi-complex nodes").

Quasi-complex nodes are newly established nodes which are assigned t-lemma substitutes (see Section 4.4, "T-lemma substitutes").

## Chapter 5. Complex nodes and grammatemes

Autosemantic lexical units are represented by complex nodes in the tectogrammatical trees (the value of their nodetype attribute is complex; see Section 3.7, "Complex nodes"). Complex nodes have a t-lemma, grammatemes and other attributes. (Other nodes types have no grammatemes.)

For a great number of complex nodes, their t-lemma is identical to their m-lemma (see Section 4.1, "Morphological lemma (m-lemma)", Section 4.2, "The relation between a node's t-lemma and mlemma and between its t-lemma and word form"). However, in some cases, the t-lemmas differ from their respective m-lemmas. This is mostly caused by the fact that some of the processes of syntactic and lexical derivation are reflected at the tectogrammatical level (see Section 5.1, "Syntactic and lexical derivation").

### 5.1. Syntactic and lexical derivation

Syntactic derivation and lexical derivation are processes as a result of which new words are derived (from their base words). The derived words are represented by nodes with the $t$-lemmas of their base words.

### 5.1.1. Types of the syntactic derivation

Syntactic derivation concerns the cases in which the base word is to be used in a different syntactic environment (function) while the core of its meaning stays preserved.

The following types of syntactic derivation can be distinguished:
A. Possessive adjectives are taken to be derived from nouns and are represented by their t-lemmas (i.e. by the t -lemmas of the base nouns).

Examples:

- matčin (=mother's) is represented by matka (=mother);
- Pavlova (=Pavel's) $\rightarrow$ Pavel;
- prezidentův (=president's) $\rightarrow$ prezident;
- kamarádových (=friend's.LOC.pl) $\rightarrow$ kamarád.

See Section 5.6.1.1, "Denominating semantic nouns".
B. Similarly, possessive pronouns use the t-lemmas of their base words, which are personal pronouns. Personal and possessive pronouns (including the reflexives) are represented by a single t-lemma (\#PersPron; see Section 4.4, "T-lemma substitutes").

Examples:

- tobě (=you.DAT/LOC.sg) is represented by a node with the \# PersPron t-lemma;
- $\quad m e \check{(=I . G E N / A C C)} \rightarrow$ \#PersPron;
- vám (you.DAT.pl) $\rightarrow$ \#PersPron;
- oni (=they) $\rightarrow$ \#PersPron;
- sobĕ(=self.DAT/LOC) $\rightarrow$ \#PersPron.
- náš (=our) $\rightarrow$ \#PersPron;
- její (=her) $\rightarrow$ \#PersPron;
- svoje (=self's) $\rightarrow$ \#PersPron.

See Section 5.6.1.3, "Definite pronominal semantic nouns: personal pronouns".
C. Deadjectival adverbs are represented by nodes with the $t$-lemmas of the corresponding adjectives.

## Examples:

- pěkně (=nicely) is represented by pěkný (=nice);
- rychle (=quickly) $\rightarrow$ rychlý (=quick);
- porádně (=thoroughly) $\rightarrow$ pořádný (=thorough).

See Section 5.6.2.1, "Denominating semantic adjectives".
D. Certain pronominal directional adverbs are taken to be derived from locative adverbs; hence, they are represented by nodes with the t-lemmas of the corresponding locative adverbs.

Příklady:

- tudy (=this_way) is represented by tady (=here);
- odtud (=from_here) $\rightarrow$ tady (=here);
- sem (=here.directional) $\rightarrow$ tady (=here.locative);
- odtamtud (=from_there) $\rightarrow$ tam (=there).

See Section 5.6.3.5, "Definite pronominal semantic adverbs".
E. Similarly, certain pronominal temporal adverbs (answering the questions "od kdy (=from when)", "do kdy (=until when)" etc.) are understood as derived from adverbs carrying the simplest temporal meaning (i.e. the one answering the question "kdy? (=when)") and are represented by their t-lemmas.

Examples:

- doted' (=until_now) is represented by ted' (=now);
- doposud (=until_now) $\rightarrow$ ted ${ }^{\prime}(=n o w)$.

See Section 5.6.3.5, "Definite pronominal semantic adverbs".
The m-lemmas of words that are taken to be derived by means of syntactic derivation can be deduced from the used t-lemma together with the assigned functor. For example, the m-lemma matčin (=mother's) corresponds to the combination of the t-lemma matka (=mother) and the functor APP (type A, similarly type B); the m-lemma tudy (=this_way) corresponds to the combination of the tlemma tady (=here) and the functor DIR2 (type D) etc.
!!! Types of syntactic derivation not represented at the tectogrammatical level as such. Other types of syntactic derivatives are not represented as such at the tectogrammatical level so far; their mlemmas are used instead. These are:

- deadverbial adjectives.

For example dnešní (=today's) is represented by the t-lemma dnešní and not by the t-lemma dnes (=today).

- verbal and event nouns (if they are cases of syntactic derivation).

For example vyrábění, setí (=producing, sowing) and výroba, setba (=production, sowing) are represented by the t-lemmas vyrábění, setí and výroba, setba and not by the t-lemmas of the corresponding base verbs.

- deadjectival nouns of the type mladost (=youth) and naivita (=naivety).

In the current version of PDT, neither these are represented by the $t$-lemmas of their base adjectives.

- deverbal adjectives of the type vyrábéjicí (=producing) and vyrobený (=produced).

In the current version of PDT, these are not represented by the $t$-lemmas of their base verbs.

### 5.1.2. Types of lexical derivation

Lexical derivation involves change in meaning; the semantics of the lexical derivatives differs from that of their base words.

There are two types of lexical derivation that are captured as such at the tectogrammatical level:
A. Individual kinds of definite numerals (ordinal, sort, set and fraction numerals) are taken to be derived from the corresponding cardinal numerals and are represented by their t-lemmas.

Examples:

- trojí (=three_kinds_of) is represented by tři (=three);
- třetina $(=($ one $)$ third $) \rightarrow$ tři;
- třetí $(=$ the_third $) \rightarrow$ tři.

See Section 5.6.2.4, "Definite quantificational semantic adjectives".
B. Relative, indefinite, interrogative, negative and totalizing pronouns and pronominal numerals and adverbs of a similar type (e.g. nëkdo / nikdo (=somebody/nobody), nëkolik (=several), nëkdy / nikdy (=sometimes/never)) are represented by the t-lemma of the corresponding interrogative or relative pronoun, numeral or adverb.

Examples:

- nëkdo (=somebody) is represented by $k d o$ (=who);
- nikdo (=nobody) $\rightarrow k d o$;
- nic (=nothing) $\rightarrow$ co (=what);
- několik (=several) $\rightarrow$ kolik (=how_many);
- všechen $(=$ all $) \rightarrow$ co (=what);
- žádný (=no) $\rightarrow$ který (=which).

See Section 5.6.1.4, "Indefinite pronominal semantic nouns", Section 5.6.2.3, "Indefinite pronominal semantic adjectives".

The semantic feature distinguishing individual types of numerals from their cardinal counterparts is encoded in the value of their numertype grammateme (see Section 5.5.5, "The numertype gram-
mateme"). The semantic feature distinguishing different types of pronominal numerals and adverbs from each other is encoded in the value of their indeftype grammateme (see Section 5.5.6, "The indeftype grammateme").

As for type A, the form of the m-lemma follows from the combination of the used t-lemma and the value of the numertype grammateme (e.g. třeti (=the third) has the t-lemma tři (=three) and the value ord is specified in the numertype attribute). As for type $B$, the form of the m-lemma follows from the combination of the used t-lemma and the value of the indeftype grammateme (e.g. the m -lemma nëkdo (=somebody) is represented by a node with the t-lemma kdo (=who) and the indef1 value in the indeftype grammateme).
!!! Only those types of lexical derivation are represented as such at the tectogrammatical level which are grammaticalized to a sufficiently large extent. Hence, we only represent those cases of lexical derivation as such that belong to a closed class of words (these are pronouns, numerals and pronominal adverbs). So far, productive types of lexical derivation (derivation of feminine forms from masculine forms, derivation of diminutives or agent nouns) are not represented as such in PDT.

### 5.1.3. Mixed type

There are also other types of derivatives - those resulting from both syntactic and lexical derivation.
These are:
A. Possessive counterparts of relative, indefinite, interrogative, negative and totalizing pronouns (e.g. čí, néčí, čísí, ničí (=whose, someone's, noone's)) are represented by a node with the t-lemma of the corresponding relative/interrogative pronoun.

Examples:

- $\check{c} \check{c}$ (=whose) is represented by $k d o$ (=who);
- něčí $(=$ someone's) $\rightarrow k d o$;
- ničí $(=n o o n e ' s) \rightarrow k d o$.

See Section 5.6.1.4, "Indefinite pronominal semantic nouns".
The value of the m -lemma of these possessives follows from the combination of their t-lemma, functor and the value of the indeftype grammateme (see Section 5.5.6, "The indeftype grammateme").

For example, a node with the t-lemma $k d o$ ( $=w h o$ ), the APP functor and the negat value in the indeftype grammateme has the m-lemma niči (=noone's).
B. Relative, indefinite, interrogative, negative and totalizing pronominal adverbs expressing directional meanings (e.g.: odkud, kudy, kam, odněkud, nikudy (=from_where, which_way, where_to, from_some place, ...)) are represented by the t -lemma of their locative counterparts.

Examples:

- odkud (=from_where) is represented by a node with the t-lemma kde (=where);
- někudy (=some_way) $\rightarrow k d e$ (=where);
- nikam (=nowhere) $\rightarrow k d e$.

See Section 5.6.3.6, "Indefinite pronominal semantic adverbs".

The value of the m-lemma of these adverbs follows from the combination of their t-lemma, functor and the value of their indeftype grammateme (see Section 5.5.6, "The indeftype grammateme").

For example, a node with the t -lemma $k d e$, the DIR2 functor and the negat grammateme corresponds to the m-lemma nikudy (=lit. no_way).
C. Relative, indefinite, interrogative, negative and totalizing pronominal adverbs with various temporal meanings (answering the questions "od kdy (=from_when)", "do kdy (=until_when)" etc.; e.g.: odkdy, dokdy, navždy (=from_when, until_when, forever)) are represented by the corresponding adverbs with the simplest (basic) temporal meaning.

Examples:

- odkdy (=from_when) is represented by $k d y$ (=when);
- dokdy (=until_when) $\rightarrow k d y$;
- navždy (=forever) $\rightarrow k d y$.

See Section 5.6.3.6, "Indefinite pronominal semantic adverbs".
The value of the m-lemma of these adverbs follows from the combination of their t-lemma, functor and the value of their indeftype grammateme (see Section 5.5.6, "The indeftype grammateme").

For example, a node with the t-lemma $k d y$ (=when), the TFHL functor and the totall value in the indeftype grammateme corresponds to the m-lemma navždy (=forever).
D. Individual types of indefinite numerals, i.e. ordinal, sort, set and fraction numerals, are represented by a node with the $t$-lemma of the corresponding (adjectival) cardinal numeral.

For example, kolikátý (=how_many.adjectival; ordinal) as well as kolikerý (=how_many_types.adjectival; set numeral) are represented by the t-lemma kolik (=how_many).

Examples:

- kolikátý (=how_many.adjectival, ordinal) is represented by kolik (=how_many);
- kolikerý (=how_many_types.adjectival, set numeral) $\rightarrow$ kolik.

See Section 5.6.2.5, "Indefinite quantificational semantic adjectives".
The value of the m-lemma of these numerals follows from the combination of their t-lemma, functor, the value of the indeftype grammateme (see Section 5.5.6, "The indeftype grammateme") and the value of the numertype grammateme (see Section 5.5.5, "The numertype grammateme").

For example, a node with the t-lemma kolik (=how_many), the indef1 value in the indeftype grammateme and the ord value in the numertype grammateme corresponds to the m-lemma několikátý ( $=n$-th, several.ordinal).
E. Adverbs with a numerical meaning like potřetí (=for_the_third_time) / pokolikáté / poněkolikáté (=for_the_n-th_time) and třikrát (=three_times) / mnohokrát (=many_times) / kolikrát ( $=h o \bar{w}_{-}$māny_times) / několikrát ( $=$a_couple_of_times) are represented by a node with the t lemma of the corresponding (deadjectival) cardinal numeral.

Examples:

- potřetí (=for_the_third_time) is represented by tři (=three);
- třikrát $(=$ three_times $) \rightarrow$ tři;
- mnohokrát (=many_times) $\rightarrow$ mnoho (=many);
- pokolikáté (how_many_times.ordinal) $\rightarrow$ kolik (=how_many);
- poněkolikáté (for_the_n-th_time) $\rightarrow$ kolik;
- několikrát (=several_times) $\rightarrow$ kolik.

Cf. Section 5.6.2.4, "Definite quantificational semantic adjectives", Section 5.6.2.5, "Indefinite quantificational semantic adjectives" and Section 5.6.2.6, "Gradable quantificational semantic adjectives".

The value of the m-lemma of these adverbs follows from the combination of their t-lemma, functor, the value of their numertype grammateme (see Section 5.5.5, "The numertype grammateme"), with indefinite adverbs also from the value of the indeftype grammateme (see Section 5.5.6, "The indeftype grammateme").

For example, a node with the t-lemma tři (=three), the TWHEN functor and the ord value in the numertype grammateme corresponds to the m -lemma potřeti (=for_the_third_time); a node with the t-lemma kolik (=how_many), the THO functor, the value basic in the numertype grammateme and the indef1 value in the indeftype grammateme corresponds to the m lemma nékolikrát (=several_times).

### 5.2. Semantic parts of speech

Due to the way syntactic and lexical derivatives are represented, it often happens that a node's $t$-lemma differs from its m-lemma.

Complex nodes are divided into four basic groups (according to their t-lemmas) which are further subdivided. These four basic groups are called semantic parts of speech. Semantic parts of speech are categories of the tectogrammatical level and correspond to the basic onomasiological categories: substances, properties, circumstances.and events. They are:

- semantic nouns (see also Section 5.6.1, "Semantic nouns"),
- semantic adjectives (see also Section 5.6.2, "Semantic adjectives"),
- semantic adverbs (see also Section 5.6.3, "Semantic adverbs"),
- semantic verbs (see also Section 5.6.4, "Semantic verbs"),

The information regarding the semantic part-of-speech character of a complex node is encoded in its sempos attribute. See also Section 5.3.1, "The sempos attribute".

Semantic parts of speech do not quite correspond to the "traditional" parts of speech (see Section 5.2.1, "Relation between the semantic and traditional parts of speech").

Traditional parts of speech. In Czech, ten traditional parts of speech are distinguished: nouns, adjectives, pronouns, numerals, verbs, adverbs, prepositions, conjunctions, particles and interjections. To which traditional part of speech a word belongs is determined by its morphological, syntactic and semantic characteristics (by the characteristics of its m-lemma). The information regarding the (traditional) part-of-speech characteristics of a word (its m-lemma) is carried by its morphological tag. To explain the relation between the semantic parts of speech and the traditional parts of speech (see Section 5.2.1, "Relation between the semantic and traditional parts of speech") the term syntactic parts of speech will be used as well.

Syntactic parts of speech. The term syntactic part of speech refers to the role of a word in the sentence. The fact that a word belongs to a syntactic part-of-speech is not encoded in any attribute of the word; the term is used exclusively to make the explanation of the difference between the semantic and traditional parts of speech easier. Four syntactic parts of speech are distinguished:

- syntactic nouns.

Syntactic nouns are words that modify verbs and usually express such morphological categories as gender, number and case. They mostly play the role of the subject or an object. Moreover, syntactic nouns involve words with the function of a predicative complement or the nominal part of a (verbonominal) predicate (if they are not dependent on another noun w.r.t. the value of their morphological categories) and words in the position of a non-agreeing attribute.

- syntactic adjectives.

Syntactic adjectives are words that modify nouns and are dependent on them w.r.t. the value of their morphological categories (mostly they play the role of an agreeing attribute). Further, syntactic adjectives involve words in the position of the nominal part of a predicate or in the position of a predicative complement - if the value of their morphological categories depends on the morphological categories of another noun in the sentence (which is usually either the subject or an object).

- syntactic adverbs.

Syntactic adverbs modify verbs or adjectives and usually have no morphological categories (sometimes they have the category of degree). Their function in sentences is adverbial.

- syntactic verbs.

Syntactic verbs are words with the function of a predicate (of an independent or dependent clause).
Note on terminology: when referring to the semantic parts of speech, the attribute "semantic" will always be used (i.e.: "semantic nouns", "semantic adjectives"), when referring to the traditional parts of speech, the attribute "traditional" will not always be used (i.e.: "nouns", "traditional nouns" etc.).

### 5.2.1. Relation between the semantic and traditional parts of speech

Only complex nodes are differentiated as to their semantic part-of-speech characteristics.
Autosemantic parts of speech. Lexical units that belong to one of the autosemantic parts of speech usually also belong to the corresponding semantic part of speech, i.e. nouns belong to semantic nouns, adjectives to semantic adjectives, adverbs to semantic adverbs and verbs to semantic verbs. This means that the part-of-speech status of the m-lemma usually corresponds to the semantic part-of-speech status of the t-lemma.

However, there is a difference between the part-of-speech status of the m-lemma and the semantic part-of-speech status of the t-lemma with some types of derivation; this involves the following cases:

- A: possessive adjectives correspond to semantic nouns (at the tectogrammatical level).
- C: deadjectival adverbs correspond to semantic adjectives.
- E: adverbs with a numerical meaning have the t -lemma of the corresponding adjectival cardinal numerals.

Pronouns and numerals. Pronouns and numerals are also represented by complex nodes and are treated as either semantic nouns or semantic adjectives (according to their syntactic behavior). For example, který is taken to be a (syntactic and therefore) semantic noun in sentences like Dům, který
koupil,... (=The house, that he bought...) and a (syntactic and) semantic adjective in sentences like Který dům koupil? (=Which house did he buy?).

Differences between the values of the m-lemma and t-lemma of pronouns and numerals follow from the fact that all personal and corresponding possessive pronouns (including the reflexives) are assigned a single t-lemma (namely \#PersPron) and also from the way some types of derivation are represented at the tectogrammatical level. This concerns the following derivational types:

- B: the m-lemmas of relative, indefinite, interrogative, negative and totalizing pronouns correspond to nodes with the t -lemmas of the corresponding relative/interrogative pronouns.
- A: similarly, also possessive counterparts of relative, indefinite, interrogative, negative and totalizing pronouns are represented by nodes with the $t$-lemmas of the corresponding relative/interrogative pronouns.
- A and E: the m-lemmas of all types of definite numerals and adverbs with a numerical meaning correspond (at the tectogrammatical level) to the $t$-lemmas of the corresponding cardinal numerals.
- D and E: similarly, the m-lemmas of all types of indefinite numerals and adverbs with a numerical meaning correspond to the $t$-lemmas of the corresponding cardinal numerals.

Other traditional parts of speech. Other parts of speech are represented by other than complex nodes, therefore, no reference to semantic parts of speech is made. These are nodes for particles and interjections (i.e. mostly atomic nodes: nodetype=atom) and nodes for coordinating conjunctions (these form a separate node type, so called paratactic structure root nodes: nodetype=coap).

Prepositions and subordinating conjunctions are not represented by independent nodes at the tectogrammatical level at all (see Section 8.17, "Prepositions and subordinating conjunctions"), therefore, it makes no sense to refer to the semantic parts of speech with respect to them.

The relations between the semantic and traditional parts of speech are represented in Fig. 5.1. Arrows in boldface indicate that the relation is "prototypical" (nouns prototypically belong to the class of semantic nouns, adjectives to the class of semantic adjectives etc.), simple (thin) arrows indicate the distribution of pronouns and numerals between the semantic nouns and adjectives and interrupted arrows follow the classification based on derivational relations.

Figure 5.1. The relations between the semantic and traditional parts of speech


### 5.2.2. Inner structure of the semantic parts of speech

Semantic nouns, adjectives and adverbs are further classified.
!!! Semantic verbs are not further classified so far.
The information regarding the semantic part-of-speech character of a complex node is encoded in its sempos attribute; also the information as to which subgroup the particular semantic noun, adjective or adverb belongs to is included. The possible values of the sempos attribute are to be found in Table 5.1, "Values of the sempos attribute".

The inner structure of semantic nouns, adjectives and adverbs is to some extent parallel, however, not identical.

The inner structure of the semantic parts of speech is represented with the help of a tree structure (graph) the root of which is the label of the given semantic part of speech. The first level below the label lists the basic subgroups of the class in question (i.e. the denominating, pronominal and quantificational subgroups); further classification follows on the lower levels. Below the label of a subgroup, the value of its sempos attribute is given (in boldface). Below the value of the sempos attribute, there is a set of grammatemes that are associated with the given subgroup (if there are no grammatemes associated with the given subgroup, it is indicated by the $\varnothing$ symbol); below the grammatemes, there are examples of possible $t$-lemmas.

### 5.2.2.1. Inner structure of semantic nouns

The inner structure of semantic nouns is presented in Fig. 5.2.
Figure 5.2. Inner structure of semantic nouns


The subgroup of denominating semantic nouns (sempos=n. denot; see Section 5.6.1.1, "Denominating semantic nouns") includes - apart from the traditional nouns - also possessive adjectives represented by the t-lemmas of the corresponding semantic nouns.

Within the denominating semantic nouns, there is a subgroup of nouns (namely nouns ending with -ni $/-t i$ and $-o s t$ ) for which it is possible to separate the negation from the rest of the lexical content of the word (sempos=n. denot. neg; see Section 5.6.1.1.1, "Denominating semantic nouns with which the negation is represented separately").
!!! This is only a temporary solution: in fact, all denominating semantic nouns should be divided into two groups depending on whether they can be negated or not. This would lead to distinguishing two subgroups of denominating semantic nouns, the situation which can be found with denominating semantic adverbs.

Definite pronominal semantic nouns are divided into demonstrative pronouns (sempos=n.pron.def.demon; see Section 5.6.1.2, "Definite pronominal semantic nouns: demonstratives"); these are demonstrative pronouns in the position of syntactic nouns (e.g.: ten nepřijde (=lit. this not_comes)); and personal pronouns (sempos=n.pron.def.pers; see Section 5.6.1.3, "Definite pronominal semantic nouns: personal pronouns"), these are personal and possessive pronouns including the reflexives (they are all represented by a single t-lemma: \#PersPron).

The subgroup of indefinite pronominal semantic nouns (sempos=n.pron.indef; see Section 5.6.1.4, "Indefinite pronominal semantic nouns") consists of relative, indefinite, interrogative, negative and totalizing pronouns and their possessive counterparts. The subgroup of definite quantificational semantic
nouns (sempos=n.quant. def; see Section 5.6.1.5, "Definite quantificational semantic nouns") consists of numerals in the positions of syntactic nouns, i.e. cardinal numerals (e.g.: Přišli tři / Vybrali tří z pěti nabizených knih (=lit. Came three / Chose three from (the) five offered books)), as well as fraction numerals (e.g.: třetina (=one_third) represented by tři (=three)).

### 5.2.2.2. Inner structure of semantic adjectives

The inner structure of semantic adjectives is presented in Fig. 5.3.
Figure 5.3. Inner structure of semantic adjectives


The subgroup of denominating semantic adjectives (sempos=adj. denot; see Section 5.6.2.1, "Denominating semantic adjectives") includes traditional adjectives (except for the possessive adjectives which belong to the class of semantic nouns), as well as deadjectival adverbs which are represented by the t-lemmas of their adjectival counterparts.

The subgroup of demonstrative definite pronominal semantic adjectives (sempos=adj.pron.def.demon; see Section 5.6.2.2, "Definite pronominal semantic adjectives: demonstratives") consists of (definite) demonstratives with the function of syntactic adjectives (e.g.: takový, ten (=such, this)).

Then, there is a subgroup of indefinite pronominal semantic adjectives - indefinite pronouns with the function of syntactic adjectives (sempos=adj.pron.indef; see Section 5.6.2.3, "Indefinite pronominal semantic adjectives").

The subgroup of quantificational semantic adjectives (sempos=adj . quant. def; see Section 5.6.2.4, "Definite quantificational semantic adjectives") consists of numerals with the adjectival function; i.e. these are cardinal numerals (e.g.: Přišli tř̌i muži, Tolik práce! (=Three men came, So much work!)), as well as other types of numerals represented by the t-lemmas of the corresponding cardinal numerals (e.g.: třetí (=the_third) represented by tři (=three)) and adverbs, which are also represented by the tlemmas of the corresponding cardinal numerals (e.g. potřetí (=for_the_third_time) or třikrát (=three_times) represented by tři, potolikáté $\left(=f o r \_t h e \_x-t h \_t i m e\right)$ or tolikrát $\overline{( }=s o_{-}$many_times) represented by tolik (=so_much)).

The subgroup of indefinite quantificational semantic adjectives (sempos=adj. quant. indef; see Section 5.6.2.5, "Indefinite quantificational semantic adjectives") includes the numeral kolik (=how_much/many) and its derivatives (e.g. kolikátý, nékolik, kolikrát, ponëkolikáté (=how_much.ordinal, several, how_many_times, for_the_n-th_time)).

The last quantificational subgroup, namely the subgroup of gradable quantificational semantic adjectives (sempos=adj . quant . grad; see Section 5.6.2.6, "Gradable quantificational semantic adjectives"),
consists of indefinite gradable numerals, e.g.: mnoho, málo (=many/much, few/little), nad their derivatives (e.g.: mnohokrát (=many_times)).

### 5.2.2.3. Inner structure of semantic adverbs

The inner structure of semantic adverbs is presented in Fig. 5.4.
Figure 5.4. Inner structure of semantic adverbs


The subgroup of denominating semantic adverbs consists of those traditional adverbs that are not deadjectival (i.e. are not represented by an adjectival t-lemma). Denominating semantic adverbs are divided into gradable and non-gradable adverbs. Both subgroups are further classified w.r.t. whether they can or cannot be negated (sempos $=a d v$. denot.grad. nneg and sempos $=a d v . d e-$ not. ngrad. nneg; see Section 5.6.3.1, "Non-gradable denominating semantic adverbs that cannot be negated" and Section 5.6.3.3, "Gradable denominating semantic adverbs that cannot be negated"; sempos = adv. denot.grad. neg and sempos = adv. denot. ngrad. neg; see Section 5.6.3.2, "Non-gradable denominating semantic adverbs that can be negated" and Section 5.6.3.4, "Gradable denominating semantic adverbs that can be negated").

The subgroup of definite pronominal semantic adverbs (sempos = adv.pron.def; see Section 5.6.3.5, "Definite pronominal semantic adverbs") consists of adverbs like tady, potom (=here, then) and their derivatives (e.g. tudy (=this_way) is represented by tady (=here)).

The subgroup od indefinite pronominal semantic adverbs (sempos = adv.pron.indef; see Section 5.6.3.6, "Indefinite pronominal semantic adverbs") contains adverbs like kdy, jak (=when, how) or proč (=why) and all types of their derivatives (e.g. odkdy / dokdy (=since_when / until_when) as well as někdy (=sometimes) represented by kdy (=when), nějak/jaksi (=some_way/somehow) represented by jak (=how)).

### 5.3. Attributes superior to grammatemes

At the tectogrammatical level, 15 grammatemes are being used and there are other two attributes superior to these, namely the sempos and nodetype attributes.

The nodetype attribute is assigned to every node in the tectogrammatical tree and has eight possible values. This attribute expresses which node type a given node belongs to (see Chapter 3, Node types). Grammatemes are only assigned to one node type, namely to complex nodes (nodet ype=complex).

Individual grammatemes are gathered in the gram attribute, which is in fact a structure of the individual attributes-grammatemes. The sempos attribute is obligatorily present in this structure of grammatemes
(see Section 5.3.1, "The sempos attribute"). The value of the sempos attribute unequivocally defines the set of grammatemes that are relevant for a given node.

There is also a specific attribute: sentmod (see Section 5.7, "The sentmod attribute"). It captures similar meanings as the grammatemes do but it is assigned to a node on the basis of its position in the tree, not on the basis of its values of the nodetype and sempos attributes.

### 5.3.1. The sempos attribute

The sempos attribute (semantic part of speech) contains the information regarding the membership of a complex node in a semantic part of speech.

The sempos attribute has 19 possible values (symbols assigned to individual values are ordered in such a way that the first one is the one referring to the given semantic part of speech, other symbols (referring to individual characteristics) follow, separated by a period. The characteristics are organized from the more general ones to the more specific ones). The possible values of the sempos attribute are to be found in Table 5.1, "Values of the sempos attribute".

Table 5.1. Values of the sempos attribute

| n. denot | denominating semantic noun |
| :---: | :---: |
| n.denot.neg | denominating semantic noun with which the negation is represented separately |
| n.pron.def.demon | definite pronominal semantic noun: demonstrative pronoun |
| n.pron.def.pers | definite pronominal semantic noun: personal pronoun |
| n.pron.indef | indefinite pronominal semantic noun |
| n. quant.def | definite quantificational semantic noun |
| adj. denot | denominating semantic adjective |
| adj.pron.def.demon | definite pronominal semantic adjective: demonstrative pronoun |
| adj.pron.indef | indefinite pronominal semantic adjective |
| adj.quant.def | definite quantificational semantic adjective |
| adj.quant.indef | indefinite quantificational semantic adjective |
| adj.quant.grad | gradable quantificational semantic adjective |
| adv.denot.ngrad.nneg | non-gradable denominating semantic adverb, impossible to negate |
| adv.denot.ngrad.neg | non-gradable denominating semantic adverb, possible to negate |
| adv.denot.grad.nneg | gradable denominating semantic adverb, impossible to negate |
| adv.denot.grad.neg | gradable denominating semantic adverb, possible to negate |
| adv.pron.def | definite pronominal semantic adverb |
| adv.pron.indef | indefinite pronominal semantic adverb |
| v | semantic verb |

The value of the sempos attribute defines the set of grammatemes that are relevant for a given node.
Individual subgroups of semantic parts of speech are discussed in detail in Section 5.6, "Individual subgroups of semantic parts of speech and their grammatemes".

### 5.4. Values of the grammatemes

Two kinds of grammateme values are distinguished: the basic and special ones.

- Basic values. Every grammateme has at least two basic values.

For example, $s g$ and $p l$ are basic values for the number grammateme.
The basic values of individual grammatemes are listed in Section 5.5, "Grammatemes".

- Special values. Apart from the basic values, there are three special values. These are:
- $n r$

All grammatemes may be assigned the $n r$ value. The value $n r$ is assigned when it is not possible to exclude any of the basic values (i.e. all basic values are possible in the given case).

An example of such a situation (the number grammateme cannot be specified):
Vypral si kalhoty. [number=nr] (=He washed his pants)
In case it is possible to exclude at least one of the basic values, all the other values are listed.
Consider the gender grammateme in:
Viděl jen $\underline{\text { dva. }}$ [gender=inan|anim] (=He only saw two.m.anim/inanim)

- nil

The nil value only occurs with certain verbal grammatemes (see Section 5.5.9, "The verbmod grammateme (verbal modality)" through Section 5.5.15, "The iterativeness grammateme") - namely in case none of the basic values is suitable.

For example: the tense grammateme for imperatives.

- inher

The inher value is assigned to all grammatemes of (coreferring) nodes for the reflexives (se / se, svůj (=self, self's)) or relative pronouns (Ti, kdo přišli...Muži, kteří přišli... (=Those who came, The men who came)). The inher value is assigned in those cases when the grammateme value follows from the value of the given grammateme assigned to the coreferred node (the grammateme values are inherited from the coreferred nodes in the cases of grammatical coreference; see Section 9.2.1, "Coreference with reflexive pronouns" and Section 9.2.2, "Coreference with relative elements").

The inher value is what distinguishes the reflexives from personal and possessive pronouns (the reflexives are represented by the same t-lemma as the personal and possessive pronouns, namely \#PersPron) and relative pronouns from the interrogative ones (their m-lemmas are usually identical; the relatives are moreover differentiated from the interrogatives by means of different values of their indeftype grammateme - see Section 5.5.6, "The indeftype grammateme").

For example, while sviuj (=self's) is represented by the \#PersPron t-lemma and its grammatemes have the inher value, můj has the same t-lemma but its grammatemes are assigned the basic values; $k d o$ ( $=w h o$ ) in the sentence Ti, kdo přišli... (=Those who came...) is represented by the t-lemma $k d o$ and the grammatemes have the inher value, while the interrogative $k d o$ in the sentence Kdo přišel? (=Who came?) is represented by the same t-lemma kdo, but its grammatemes are assigned the basic values.

### 5.5. Grammatemes

Grammatemes are tectogrammatical correlates of the morphological categories.

Individual grammatemes are gathered in the gram attribute, which is in fact a structure of the individual attributes-grammatemes.

The sempos attribute is obligatorily present in this structure of grammatemes (see Section 5.3.1, "The sempos attribute").

The numertype (see Section 5.5.5, "The numertype grammateme") and indeftype (see Section 5.5.6, "The indeftype grammateme") attributes reflect the derivational relations, which makes them different from other grammatemes, which are usually tectogrammatical counterparts of morphological categories.
!!! In principle, it should be possible to separate a set of "derivational" grammatemes; this would make sense once the derivational relations were represented more extensively. So far, however, both the numertype and indeftype grammatemes are not distinguished from other grammatemes.

### 5.5.1. The number grammateme

The basic values of the number attribute are to be found in Table 5.2, "Values of the number grammateme".

Table 5.2. Values of the number grammateme

| sg | singular |
| :--- | :--- |
| pl | plural |

The number grammateme is a tectogrammatical correlate of the morphological category of number. It is assigned to:

- nodes of all (subgroups of) semantic nouns (see Section 5.6.1, "Semantic nouns").

With most semantic nouns, the value of the number grammateme corresponds to the value of the morphological number category; e.g.:
pes [number=sg] (=dog)
psi [number $=\mathrm{pl}](=d o g s)$
Ti už nepřijdou. [ number=pl] (=Those will not come any more)
The values are different in the cases of:

## - pluralia tantum.

The value of the number grammateme corresponds to the "quantity" of the denoted objects. For example:

```
jedny dveře [number=sg] (=one door)
dvoje dveře [number=pl] (=two doors)
```

For more details, see Section 5.6.1.1, "Denominating semantic nouns".

- using the polite form.

A node with the \#PersPron t-lemma representing a second person pronoun has the sg value in its number grammateme if it refers to one person. For example:
$\underline{\text { Vy }}$ jste se nepřihlásil? [number=sg] (=lit. You.pl AUX not_registered.sg?)

For more details, see Section 5.6.1.3, "Definite pronominal semantic nouns: personal pronouns".

## - indefinite pronominal semantic nouns.

In case the indefinite pronominal semantic noun is the subject of a predicate in plural, the assigned value of its number grammateme is pl . For example:

Řekněte, $\underline{\text { kdo }}$ přišli. [number=pl] (=Tell us who came.pl)
These pronouns have a single set of forms, usually taken to be singular, which, however, often refer to more individuals (when the predicate is in plural).

For more details, see Section 5.6.1.4, "Indefinite pronominal semantic nouns".
The number grammateme of definite quantificational semantic nouns. The number grammateme of definite quantificational semantic nouns constitutes a specific issue. As for the cardinal numerals jeden (=one) through devětadevadesát (=ninety-nine), the value of their number grammateme follows from the lexical meaning of the semantic noun. For example:

Přišla jen jedna. [number=sg] (=lit. Came.sg.f only one)
Přišli dva. [number=pl] (=lit. Came.pl.m.anim two)
As for the numerals with the "container" meaning, i.e. the numerals sto, tisic, milion (=hundred, thousand, million) etc., and fraction numerals, the number grammateme corresponds to the value of the morphological category. For example:

Přišlo sto studentů. [number=sg] (=One hundred students came)
Přišlo dvě stě studentů. [numbe $\mathrm{r}=\mathrm{pl}$ ] (=Two hundred students came)
For more details, see Section 5.6.1.5, "Definite quantificational semantic nouns".

### 5.5.2. The gender grammateme

The basic values of the gender grammateme are presented in Table 5.3, "Values of the gender grammateme".

## Table 5.3. Values of the gender grammateme

| anim | masculine animate |
| :--- | :--- |
| inan | masculine inanimate |
| fem | feminine |
| neut | neuter |

The gender grammateme is a tectogrammatical correlate of the morphological category of gender.
The gender grammateme - just like the number grammateme - is assigned to:

- all nodes for semantic nouns (see Section 5.6.1, "Semantic nouns").

The value of the gender grammateme correspond to that of morphological gender. For example:

```
děvče}[gender=neut] (=girl
dveře [gender=fem] (=door)
tenhle [gender=anim|inan] (=this)
```

Vidĕl jen dva. [gender=anim| inan] (=lit. (He) saw only two)
Oni nepřišli.[gender=anim] (=They didn't come)
!!! This is only a temporary solution.
The gender grammateme of personal and possessive first and second person pronouns. The value of the gender grammateme of the first and second person personal and possessive pronouns (these are so called gender-less pronouns) follows from the morphological gender of the node the given pronoun refers to. For example:

Bratr prohlásil: $\underline{\text { Já tam nejdu. [gender=anim] (=My brother said: I am not going there) (the value }}$ of the gender grammateme of the pronoun follows from the gender of bratr)

For more details, see Section 5.6.1.3, "Definite pronominal semantic nouns: personal pronouns".

### 5.5.3. The person grammateme

The basic values of the person grammateme are presented in Table 5.4, "Values of the person grammateme".

## Table 5.4. Values of the person grammateme

| 1 | first person (speaker) |
| :--- | :--- |
| 2 | second person (hearer) |
| 3 | third person (what is talked about) |

This grammateme is relevant for pronouns that may refer to an object of communication (third person) as well as to the speaker or hearer (first and second person); these are the following pronouns:
a. definite pronominal semantic nouns: personal pronouns (sempos $=n$.pron. def.pers; see Section 5.6.1.3, "Definite pronominal semantic nouns: personal pronouns"),
b. indefinite pronominal nouns (sempos $=n$. pron. indef; see Section 5.6.1.4, "Indefinite pronominal semantic nouns").

The person grammateme of definite personal pronominal semantic nouns. The first subgroup of pronominal nouns (a) consists of the items with a single t-lemma: \#PersPron (this t-lemma represents all personal and possessive pronouns, including the reflexives, e.g.: já, oni, tvi̊j, se, svůj ( $=I$, they, your, self, self's)).

For example: a node with the \#PersPron t-lemma representing the pronoun $j a$ ( $=I$ ) has the value 1 in its person grammateme; if the node represents the pronoun tvíj (=your), the value of its person grammateme is 2 (just like with a node representing the pronoun $v y$ ( $=y o u$ )); nodes representing the pronouns on (=he) or oni (=they) have the value 3.

Examples:
Já $u$ ž jdu. [person=1] (=I am coming)
Tvůi názor nesdilím. [person=2] (=I don't share your view)
$\underline{\text { Vy }}$ jste se už prihlásili. [person=2] (=You have already registered.pl)
Vy jiste se už přihlásil. [person=2] (=You have already registered.sg)
Oni se ještě nepřihlásili. [person=3] (=They haven't registered yet)

Those nodes with the \# PersPron t-lemma that represent the reflexives (se, si, sviuj) have the inher value in their person attribute (the value of the grammateme is inherited from the coreferred node).

For more details, see Section 5.6.1.3, "Definite pronominal semantic nouns: personal pronouns".
The person grammateme of indefinite pronominal semantic nouns. Nodes of the other subgroup of pronominal nouns (b) have usually the value 3 in their person grammateme. The values 1 and 2 are assigned in those cases when the semantic noun is the subject of a predicate with the first or second person agreement morphology. For example:

Zachraň se, kdo můžě̌. [person=2] (=lit. Save yourself who can.2.sg)
Verše, které kdekdo známe. [person=1] (=Poems which everybody/whoever know.1.pl)
For more details, see Section 5.6.1.4, "Indefinite pronominal semantic nouns".

### 5.5.4. The politeness grammateme

The basic values of the politeness grammateme are presented in Table 5.5, "Values of the politeness grammateme".

## Table 5.5. Values of the politeness grammateme

| basic | common use |
| :--- | :--- |
| polite | polite form |

This grammateme is only relevant for:

- the personal subgroup of definite pronominal semantic nouns (sempos = n. pron.def.pers; see Section 5.6.1.3, "Definite pronominal semantic nouns: personal pronouns").

For most nodes the grammateme has the value basic. This signals the default use of the pronoun. A node with the \#PersPron t-lemma and the value basic in the politeness grammateme represents pronouns like the ones in the following sentences:

Já dnes nepřijdu. [politeness=basic] (=I am not coming today)
Ty tam určitě nechod'. [politeness=basic] (=You don't go there)
The value polite is filled in when the personal or possessive pronouns are used in the polite form sentences. For example: a node with the \#PersPron t-lemma and the value polite in the politeness grammateme represents pronouns like the one in the following sentence:
$\underline{V y}$ jste se ještě nepřihlásil. [politeness=polite] (=You.pl haven't registered.sg yet)
As for the nodes representing personal and possessive reflexive pronouns, the value of the politeness grammateme is inher (the grammateme value is inherited from the coreferred node).

For more details, see Section 5.6.1.3, "Definite pronominal semantic nouns: personal pronouns".

### 5.5.5. The numertype grammateme

The basic values of the numertype grammateme are presented in Table 5.6, "Values of the numertype grammateme".

Table 5.6. Values of the numertype grammateme

| basic | cardinal numeral (tří (=three), šest, kolik (=six, how_many)) |
| :--- | :--- |
| frac | fraction numeral (třetina (=one_third), šestina (=one_sixth)) |
| kind | sort numeral (trojí (=three_kinds_of), šesterý (=six_kinds_of), kolikerý <br> (=how_many_kinds_of) $)$ |
| ord | ordinal numeral (třetí (=the_third), šestý (=the_sixth), kolikátý (=how_many.ord) $)$ |
| set | set numeral (troje (=three_sets_of), šestery, kolikery (=six_sets_of, how_many_sets_of) $)$ |

The grammateme is relevant for:
a. $\quad$ definite quantificational semantic nouns (sempos $=\mathrm{n}$. quant. def; see Section 5.6.1.5, "Definite quantificational semantic nouns"),
b. definite quantificational semantic adjectives (sempos=adj . quant. def; see Section 5.6.2.4, "Definite quantificational semantic adjectives"),
c. indefinite quantificational semantic adjectives (sempos = adj. quant.indef; see Section 5.6.2.5, "Indefinite quantificational semantic adjectives"),
d. gradable quantificational semantic adjectives (sempos=adj . quant. grad; see Section 5.6.2.6, "Gradable quantificational semantic adjectives"),

Nominal and adjectival numerals (fraction, set, sort and ordinal numerals) are all taken to be derived from the corresponding cardinal numerals (see Section 5.1.2, "Types of lexical derivation", Section 5.1.3, "Mixed type"). The value of the numertype grammateme expresses the semantic feature in which the given numeral is distinct from the corresponding cardinal numeral (by the t-lemma of which it si represented at the tectogrammatical level).

Examples of definite quantificational semantic nouns:
Přišli jen tři. [numertype=basic] (=lit. Came only three)
Snědl jen polovinu koláče. [numertype=frac] (=He only ate half of the cake)
For more details, see Section 5.6.1.5, "Definite quantificational semantic nouns".
Examples of definite quantificational semantic adjectives:
Našel tř̌i kliče. [numertype=basic] (=He found three keys)
Prošel už troje dveře. [numertype=basic] (=He has gone through three doors already)
Ztratil už troje klíče. [numertype=set] (=He has lost three bunches/sets of keys already)
Má dvojí tvár. [numertype=kind] (=He is two-faced; he has got two faces)
Čekal na druhý pokus. [numertype=ord] (=He waited for the second try)
For more details, see Section 5.6.2.4, "Definite quantificational semantic adjectives".
Examples of indefinite quantificational semantic adjectives:
Zeptej se, kolik akcii koupil. [numertype=bas ic] (=Ask him how many shares he bought)
Kolikery dveře potřebuje? [numertype=basic] (=How many doors does he need?)
Kolikery kliče potřebuje? [numertype=set] (=How many bunches/sets of keys does he need?)
$\underline{\text { Kolikeré má občanství? [numertype=kind] (=How many citizenships does he have?) }}$
Kolikátí přiklad ř̌eši? [numertype=ord] (=Which (lit. how_many.ord) example is he solving?)
For more details, see Section 5.6.2.5, "Indefinite quantificational semantic adjectives".
Examples of gradable quantificational semantic adjectives:
Má hodné problémů. [numertype=basic] (=He's got lots of problems)
For more details, see Section 5.6.2.6, "Gradable quantificational semantic adjectives".

### 5.5.6. The indeftype grammateme

The basic values of the indeftype grammateme are presented in Table 5.7, "Values of the indeftype grammateme".

## Table 5.7. Values of the indeftype grammateme

| relat | relative pronoun / adverb / numeral (kdo, jaký; kdy, jak; kolik (=who, what, when, how; <br> how_many) |
| :--- | :--- |
| indef1 | indefinite pronoun / adverb / numeral of the type někdo, nějaký / někde, nějak / několik <br> (=someone, some / somewhere, somehow / several) |
| indef2 | indefinite pronoun / pronominal adverb of the type kdosi, jakýsi / kdesi,jaksi (=someone, <br> some / somewhere, somehow) |
| indef3 | indefinite pronoun / pronominal adverb of the type kdokoli, jakýkoli / kdekoli, jakkoli <br> (=anyone, any / anywhere, however/no_matter_how) |
| indef 4 | indefinite pronoun / pronominal adverb of the type ledakdo, ledajaḱ́ / ledakde, ledajak <br> (=apprx. various_people, all_sorts_of / in_various_places, in_various_ways) |
| indef5 | indefinite pronoun / pronominal adverb of the type málokdo / málokde, kdovikdo / kdovikde <br> (=not_many_people / not_in_many_places, who_knows_who / who_knows_where) |
| indef6 | indefinite pronoun of the type kdekdo, kdejaký (=apprx. almost_everybody/many_people, <br> almost_every); |
| inter | interrogative pronoun / pronominal adverb/ numeral <br> negatnegative pronoun / pronominal adverb (nikdo, nijaký; nikde, nijak (=no_one, no; nowhere, <br> in_no_way)) |
| total1 | totalizing pronoun / pronominal adverb (referring to the whole of something) (všichni; <br> všude (=everybody, everywhere)) |
| total2 | totalizing pronoun (referring to individuals) (každý (=each/every)) |

The grammateme is relevant for:
a. indefinite pronominal semantic nouns (sempos $=\mathrm{n}$. pron. indef; see Section 5.6.1.4, "Indefinite pronominal semantic nouns"),
b. indefinite pronominal semantic adjectives (sempos $=$ adj. pron. indef; see Section 5.6.2.3, "Indefinite pronominal semantic adjectives"),
c. indefinite quantificational semantic adjectives (sempos =adj. quant.indef; see Section 5.6.2.5, "Indefinite quantificational semantic adjectives"),
d. indefinite pronominal semantic adverbs (sempos = adj. pron.indef; see Section 5.6.3.6, "Indefinite pronominal semantic adverbs").

Relative, indefinite, interrogative, negative and totalizing nominal and adjectival pronouns are considered to be derived from the corresponding relative/interrogative pronouns; the same holds for pronominal adverbs and numerals (see Section 5.1.2, "Types of lexical derivation").

The indeftype grammateme expresses the semantic feature in which the pronoun / adverb / numeral in question differs from the $t$-lemma it is represented by.

Relatives and interrogatives. Relatives and interrogatives are represented by a single t-lemma; also their m-lemmas are usually identical. Relatives are those pronouns that are in a grammatical coreference relation with another item in the sentence structure (see Section 9.2.2, "Coreference with relative elements"); they usually occur in dependent relative clauses. Interrogatives are those pronouns that do not corefer with anything; they are used in questions and content clauses. Relatives have the indeftype grammateme specified as relat, interrogatives have the indeftype grammateme filled with the value inter.

Examples:
Ten, $k$ do přišel. [indeftype=relat] (=The one who came) (kdo corefers with ten)
Muž, kterého jsme dnes potkali... [indeftype=relat] (=The man that we met today) (který corefers with the noun $m u z ̌$ )

Kdo přišel? [indeftype=inter] (=Who came?)
Řekněte, který dům jste si koupili? [indeftype=inter] (=Tell me, which house did you buy?)
Indefinites. There are several types of indefinites in Czech. Individual types differ from each other by the derivational means they make use of (ně- / -si/-koli etc.), which also cause subtle meaning differences. Individual derivational types of indefinites are assigned one of the values: indef1 through indef6.
!!! The value indef 6 covers more types at the moment (málo-, kdoví, bůhví etc.). In the future, each of these types should be assigned a separate value of the indeftype grammateme.

Totalizers. Totalizers are assigned one of the two values: totall or total2. The value totall is assigned to a node for a totalizer referring to the whole of something; the value total2 is assigned to a totalizer referring individually to every single item (in the domain).

Negatives. Negatives are represented by the value negat.
For more details see Section 5.6.1.4, "Indefinite pronominal semantic nouns", Section 5.6.2.3, "Indefinite pronominal semantic adjectives", Section 5.6.2.5, "Indefinite quantificational semantic adjectives" a Section 5.6.3.6, "Indefinite pronominal semantic adverbs".

### 5.5.7. The negation grammateme

The basic values of the negation grammateme are represented in Table 5.8, "Values of the negation grammateme".

## Table 5.8. Values of the negation grammateme

| neg 0 | affirmative |
| :--- | :--- |
| neg1 | negative |

The grammateme is relevant for:
a. certain denominating semantic nouns (sempos = n. denot. neg; see Section 5.6.1.1.1, "Denominating semantic nouns with which the negation is represented separately"),
b. denominating semantic adjectives (sempos=adj. denot; see Section 5.6.2.1, "Denominating semantic adjectives"),
c. gradable denominating semantic adverbs that can be negated (sempos $=\mathrm{adv}$. denot.grad.neg; see Section 5.6.3.4, "Gradable denominating semantic adverbs that can be negated"),
d. non-gradable denominating semantic adverbs that can be negated (sempos $=\mathrm{adv}$. denot.ngrad. neg; see Section 5.6.3.2, "Non-gradable denominating semantic adverbs that can be negated").

The negation grammateme is used to express whether a given semantic noun / adjective / adverb occured in its negated or non-negated form in the surface structure of the sentence. Both forms are represented by a non-negated t-lemma at the tectogrammatical level. A node representing a positive (non-negated) item has the neg 0 value in its negation grammateme; a node for a negative item is specified as neg1.

Examples:
$\underline{\text { hlasování o státnim rozpočtu }[\text { negat ion=neg 0] (=lit. voting about state budget) }}$
otázka bytí [negation=neg0] a nebytí [negation=neg1] vysokých škol (=lit. question (of) being and non-being (of) universities)
nezralost ditěte [negation=neg1] (=lit. immaturity (of) child)
nepěkný zážitek [negation=neg1]] (=lit. not_nice experience)
nepřiliš̌ vydařený výlet [negation=neg1] (=lit. not_very successful trip)

### 5.5.8. The degcmp grammateme (degree)

The basic values of the degcmp grammateme are represented in Table 5.9, "Values of the degcmp grammateme".

## Table 5.9. Values of the degcmp grammateme

| pos | positive |
| :--- | :--- |
| comp | comparative |
| sup | superlative |
| acomp | elative (absolute comparative) |

The degcmp grammateme is a tectogrammatical correlate of the (adjectival/adverbial) category of degree.

The grammateme is relevant for:
a. denominating semantic adjectives (sempos=adj. denot; see Section 5.6.2.1, "Denominating semantic adjectives"),
b. gradable denominating semantic adverbs that cannot be negated (sempos $=$ adv. denot.grad. nneg; see Section 5.6.3.3, "Gradable denominating semantic adverbs that cannot be negated"),
c. gradable denominating semantic adverbs that can be negated (sempos $=\mathrm{adv}$. denot.grad. neg; see Section 5.6.3.4, "Gradable denominating semantic adverbs that can be negated").

All non-comparative/non-superlative forms of semantic adjectives have the pos value in the grammateme. The values comp and sup usually correspond to morphological comparatives and superlatives.

As for the adverbs (the subgroups band c), the grammateme value also usually corresponds to the value of the morphological category.

Examples:
příjemnější hudba[deg cmp=comp] (=nicer music)
nejlépe strávený večer $[\mathrm{deg} \mathrm{cmp}=\mathrm{sup}] \quad(=a n$ evening spent in the best way)
The acomp value. A special value of the degree grammateme, which does not have a correlate in the morphological degree, is the value acomp. It is assigned to nodes representing the so called absolute comparative (elative), i.e. a frozen comparative form not expressing comparison. The acomp value was assigned to nodes representing adjectives e.g. in the following cases:
muž tmavší pleti [degcmp=acomp] (=a man of darker skin)
starší žena [degcmp=acomp] (=an elder(ly) woman)
When it is not possible to decide whether the comparative is the absolute or the common one, both values are assigned.

### 5.5.9. The verbmod grammateme (verbal modality)

The basic values of the verbmod grammateme are represented in Table 5.10, "Values of the verbmod grammateme".

Table 5.10. Values of the verbmod grammateme

| ind | indicative |
| :--- | :--- |
| imp | imperative |
| cdn | conditional |

The verbmod grammateme is a tectogrammatical correlate of the morphological category of (verbal) mood. It is relevant for:

- semantic verbs (sempos=v; see Section 5.6.4, "Semantic verbs").

The values of the grammateme usually correspond to the value of the morphological category of mood. Example:

Přišli včas? [verbmod=ind] (=Did they come in time?)
Přijd'te na schůzi včas! [verbmod=imp] (=Come to the meeting in time!)
My bychom přišli určitě včas. [verbmod $=\mathrm{cdn}]$ (=We would definitely come in time)
For more details, see Section 5.6.4.1, "Values of the verbal modality grammateme".

### 5.5.10. The deontmod grammateme (deontic modality)

The basic values of the deontmod grammateme are represented in Table 5.11, "Values of the deontmod grammateme".

Table 5.11. Values of the deontmod grammateme

| deb | the event is understood as "necessary" |
| :--- | :--- |
| hrt | the event is understood as "obligatory (an obligation)" |
| vol | the event is understood as "wanted/intended" |
| poss | the event is understood as "possible" |
| perm | the event is understood as "permitted" |
| fac | the event is understood as "an ability (to do sth)" |
| decl | basic (unmarked) modality |

The grammateme is used to express the fact that the event is understood as necessary, possible, permitted etc. It is relevant for:

- semantic verbs (sempos=v; see Section 5.6.4, "Semantic verbs").

The value of the grammateme follows from the used modal verb. Examples:
Musime zaplatit fakturu včas. [deontmod=deb] (=We must/have to settle the invoice in time)
Chtěl na sebe upozornit. [deontmod=vol] (=He wanted to turn the attention to himself)
Petr ti měl podklady poslat už včera. [deontmod=hrt] (=Petr was supposed to send you the documents already yesterday)

Mưžete odejít. [deontmod=poss] (=You can go)
Nesmiš kouřit. [deontmod=perm] (=You are not allowed to smoke)
Přišel na schůze včas. [deontmod=decl] (=He came to the meetings in time)
For more details, see Section 5.6.4.2, "Values of the deontic modality grammateme".

### 5.5.11. The dispmod grammateme (dispositional modality)

The basic values of the dispmod grammateme are represented in Table 5.12, "Values of the dispmod grammateme".

## Table 5.12. Values of the dispmod grammateme

| disp0 | no dispositional modality |
| :--- | :--- |
| disp1 | the predicate expresses dispositional modality |

The dispmod grammateme is relevant for:

- semantic verbs (sempos=v; see Section 5.6.4, "Semantic verbs").

This grammateme is assigned to the node representing the verbal predicate (of a clause) the verbal modality of which is either ind or cdn (non-imperative forms), and expresses whether the clause expresses the so called dispositional modality.

Dispositional modality is a special type of modality capturing the relation (attitude) of the agent to the event. In Czech, this type of modality is carried by a special type of construction - its surface form has usually the following form: the reflexive passive, the manner adverbial of the type dobree, lehce, špatné (=well,easily, badly) and the dative agent, not necessarily present at the surface level. The modal
(manner) adverbial may be omitted as well in exclamatory (expressive) clauses, since it can be inferred (e.g. Jemu se pracuje! (=apprx. For him it is so easy to work!).

The value disp1 is assigned to nodes representing verbal predicates of the following type:
Tato studie se studentưm četla dobře. [di spmod=di sp1] (=lit. This article REFL student.DAT read well; apprx. It was easy for the students to read the article)

Spalo se nám tu výborně. [di spmod=disp1] (=lit. Slept REFL us.DAT here excellently; apprx. We slept very well here)

Otherwise, the value of this grammateme is disp 0 .
NB! As for the nodes representing imperatives, infinitives or transgressives (gerunds), the value of the dispositional modality grammateme is nil.

For more details, see Section 5.6.4.3, "Values of the dispositional modality grammateme".

### 5.5.12. The aspect grammateme

The basic values of the aspect grammateme are represented in Table 5.13, "Values of the aspect grammateme".

## Table 5.13. Values of the aspect grammateme

| proc | progressive, imperfective aspect |
| :--- | :--- |
| cpl | complex, perfective aspect |

The aspect grammateme is a tectogrammatical correlate of the morpho-lexical category of aspect and is relevant for:

- semantic verbs (sempos=v; see Section 5.6.4, "Semantic verbs").

The value of the grammateme usually corresponds to the value of the morpho-lexical category of aspect.
Examples:
Nejraději kupuje / nakupuje nábytek. [aspect=proc] (=He likes to buy furniture best)
Koupil / nakoupil už vše potřebné. [a spect=cpl] (=He already bought everything he needed)
One of the values is assigned also to the so called double-aspect verbs. In those cases, when it is impossible to choose one of the values, the assigned value is nr .

For more details, see Section 5.6.4.4, "Values of the aspect grammateme".

### 5.5.13. The tense grammateme

The basic values of the tense grammateme are represented in Table 5.14, "Values of the tense grammateme".

Table 5.14. Values of the tense grammateme

| sim | simultaneous event |
| :--- | :--- |
| ant | preceding (anterior) event |
| post | subsequent (posterior) event |

The tense grammateme is relevant for:

- semantic verbs (sempos=v; see Section 5.6.4, "Semantic verbs").

The tense grammateme is a tectogrammatical correlate of the morphological category of tense. One of the listed values is assigned to every node representing a finite non-imperative form of a verb or transgressive (gerund).

The difference between the absolute and relative tenses is not captured by the value of the tense grammateme - it follows from the position of the given node in the tree, whether the tense is absolute or relative. Nodes representing a verb form referring to an event that takes place at the moment of utterance (absolute tense) or at the moment (time span) simultaneous with another event (relative tense) are assigned the sim value; nodes representing a verb form referring to an event that took place before the moment of utterance (absolute) or before another event (relative) are assigned the ant value; nodes representing a verb form referring to an event that is going take place after the moment of utterance (absolute) or after another event (relative) are assigned the post value.

Examples:
Píse dopis. [tense=sim] (=He is writting a letter)
Psal dopis. [tense=ant] (=He was writting a letter)
Bude psát dopis. [tense=post] (=He will write/be writting a letter)
Napiše dopis. [tense=post] (=He will write/will have written a letter)
Napsal dopis. [tense=ant] (=He wrote a letter)
Nodes representing imperatives and infinitives are assigned the nil value (in the tense grammateme).
For more details, see Section 5.6.4.5, "Values of the tense grammateme".

### 5.5.14. The resultative grammateme (resultative aspect)

The basic values of the resultative grammateme are presented in Table 5.15, "Values of the resultative grammateme".

## Table 5.15. Values of the resultative grammateme

| res 0 | no resultative meaning |
| :--- | :--- |
| res 1 | resultative meaning (aspect) |

The resultative grammateme is relevant for:

- semantic verbs (sempos=v; see Section 5.6.4, "Semantic verbs").

In resultative constructions, the event is presented as the resulting state.
The res 1 value is only assigned to nodes representing the so called possessive passive, i.e. a form consisting of the verb mít and a passive participle, e.g.: mél uvařeno (=lit. (he) had cooked).

In all the other cases, the value of the grammateme is res 0 .
Examples:
Uvařil [resultative=res0] a uklidil. [resultative=res0] (=He cooked (the dinner) and cleaned (the house))

Mĕl uvařeno [resultative=res1] a dokonce i uklidil. [resultative=res0] (=lit. (He) had cooked and even cleaned)

For more details, see Section 5.6.4.6, "Values of the resultative grammateme".

### 5.5.15. The iterativeness grammateme

The basic values of the iterativeness grammateme are presented in Table 5.16, "Values of the iterativeness grammateme".

## Table 5.16. Values of the iterativeness grammateme

it0 0 no iterative meaning present
it1 iterated, multiple event
The iterativeness grammateme is relevant for:

- semantic verbs (sempos=v; see Section 5.6.4, "Semantic verbs").

The it1 is assigned to nodes representing multiple/iterated events; so far, it seems to concern only the cases when a verb has one of the iterative suffixes: -ívat / -ávat, -ávávat / -ívávat. In all other cases the value it0 is assigned.

Examples:
Chodíval $k$ nám často. [iterativeness=it1] (=He used to come to us quite often)
Chodí plavat pravidelně / každé pondělí. [iterativeness=it0] (=She goes swimming regularly / every morning)

For more details, see Section 5.6.4.7, "Values of the iterativeness grammateme".

### 5.6. Individual subgroups of semantic parts of speech and their grammatemes

### 5.6.1. Semantic nouns

Semantic nouns can be divided into the following subgroups:

- denominating semantic nouns (see Section 5.6.1.1, "Denominating semantic nouns");
- denominating semantic nouns with which the negation is represented separately (see Section 5.6.1.1.1, "Denominating semantic nouns with which the negation is represented separately");
- definite pronominal semantic nouns: demonstratives (see Section 5.6.1.2, "Definite pronominal semantic nouns: demonstratives");
- definite pronominal semantic nouns: personal pronouns (see Section 5.6.1.3, "Definite pronominal semantic nouns: personal pronouns");
- indefinite pronominal semantic nouns (see Section 5.6.1.4, "Indefinite pronominal semantic nouns");
- definite quantificational semantic nouns (see Section 5.6.1.5, "Definite quantificational semantic nouns");


### 5.6.1.1. Denominating semantic nouns

$$
\text { sempos }=n \cdot \text { denot }
$$

The subgroup of denominating semantic nouns consists of:

- traditional nouns.

For example: otec, Marta, pokora, dveře (=father, Marta, meekness, door).

- possessive adjectives represented by the t-lemma of the corresponding nouns (see Section 5.1.1, "Types of the syntactic derivation").

Example: otcova záliba [t_lemma=otec] (=father's hobby), Martin pokoj [ t _lemma=Marta] (=Marta's room).

Denominating semantic nouns have the following grammatemes:

- number (see Section 5.5.1, "The number grammateme"),
- gender (see Section 5.5.2, "The gender grammateme").

The number grammateme. The value of the number grammateme usually corresponds to the value of the morphological category of number. For example:

```
pes [number=sg] (=dog)
psi [number=pl] (=dogs)
```

An exception is pluralia tantum where the grammateme value follows from the "quantity" of referents, e.g.:
jedny dveře [number=sg] (=one door)
dvoje $\underline{\text { dveře }}$ [number $=\mathrm{pl}$ ] (=two doors)
Jel do Prachatic. [number=sg] (=He went to Prachatice)
In some cases it is not clear whether a given form is singular or plural; then, the assigned value is $n r$, e.g.:

Vypral si kalhoty. [number=nr] (=He washed his pants)
!!! Similarly, also singularia tantum (e.g.: ptactvo, mládež (=birds.sg, youth)) and mass nouns (e.g.: mouka, káva (=flour, coffee)) do not regularly express the opposition singular vs. plural. Due to the difficulties posed by the problematic delimitation of these nouns, the rule so far is that the value of the number grammateme follows from the value of the morphological number category:
dvojí mládež [number=sg] (=two kinds of youth)
Nejraději pije kávu. [number=sg] (=He prefers to drink coffee)
Mají tu dvojí kávu. [number=sg] (=They have two kinds of coffee here)
Nodes representing possessive adjectives have the $s g$ value (the possessive forms are not derived from plural nouns).

The gender grammateme. The value of the gender grammateme corresponds to the value of the morphological gender of the given noun; in the case of possessive adjectives it is the value of the morphological gender of the corresponding noun. For example:

```
dëv̌če [gender=neut] (=girl)
dveře [gender=fem] (=door)
otcova záliba [gender=anim] (=father's hobby)
Martin pokoj [gender=fem] (=Marta's room)
```


### 5.6.1.1.1. Denominating semantic nouns with which the negation is represented separately

```
sempos=n.denot.neg
```

The subgroup of denominating semantic nouns with which the negation is represented separately consists of:

- denominating semantic deverbal nouns ending with -ní / -tí;
- denominating semantic deadjectival nouns ending with -ost.

Both the positive and negative forms of these nouns are represented by the t-lemma corresponding to the positive form. These semantic nouns have the following grammatemes:

- number (see Section 5.5.1, "The number grammateme"),
- gender (see Section 5.5.2, "The gender grammateme").
- negation (see Section 5.5.7, "The negation grammateme").

The number grammateme. The value of the number grammateme usually corresponds to the value of the morphological category of number.

The gender grammateme. The value of the gender grammateme corresponds to the morphological gender: deverbal nouns are assigned the neut value, deadjectival nouns ending with -ost have the fem value.

The negation grammateme. The negation grammateme has the neg 0 value with nodes representing positive (non-negated) words, nodes representing negative forms of the word are assigned the neg1 value. For example:
nezralost ditète $[$ negation=neg1; t_lemma= zralost] (=lit. immaturity (of) child)
hlasování o státním rozpočtu [negation=neg0] (=lit. voting about state budget)
nedodržení smluvnich podminek [negation=neg1; t_lemma= dodrženi] (=lit. not_keeping of conditions_of_a_contract)
otázka bytí [negation=neg0] a nebytí [negation=neg1; t_lemma= byti] vysokých škol (=lit. question (of) being and not-being (of) universities)

The group of semantic nouns for which the negation grammateme is relevant was delimited on the basis of the derivational characteristics of these nouns: they are deverbal nouns ending with -ni / -tí and deadjectival nouns ending with -ost. As for other semantic nouns, the negation grammateme is not used; the possible negation is part of their t-lemma: one can find both souhlas and nesouhlas as t lemmas, for example.
!!! This is only a temporary solution: in fact, all denominating semantic nouns should be divided into two groups depending on whether they can be negated or not. This would lead to distinguishing two subgroups of denominating semantic nouns, the situation which can be found with denominating semantic adverbs.
!!! Dividing denominating semantic nouns into those that can and those that cannot be negated (as with the denominating semantic adverbs) is complicated by the fact that some nouns, which are usually found in their positive forms, can occassionaly be negated, too; for example: Čech (=Czech) - byli tam Češi i Nečeši (=there were both Czechs and Non-Czechs there) etc. For similar reasons, also denominating semantic adjectives have not been divided into those that can and those that cannot be negated the negation grammateme is relevant for all denominating semantic adjectives.

### 5.6.1.2. Definite pronominal semantic nouns: demonstratives

```
sempos=n.pron.def.demon
```

The subgroup of definite pronominal - demonstrative - semantic nouns consists of:

- demonstrative pronouns in the positions of syntactic nouns.

These are mainly demonstratives present at the surface structure (e.g.: Tī už nepřijdou, O tohle mi nejde (=These will not come again; this is not the point), also tamten, onen, tenhleten (=that, this etc.) and newly established nodes with the \#EmpNoun t-lemma (which represent the governing nodes of adjectives the real governing nodes of which were impossible to copy; see Section 6.12.1.2.2, "Grammatical ellipsis of the governing noun").

Nodes of this subgroup have the following grammatemes:

- number (see Section 5.5.1, "The number grammateme"),
- gender (see Section 5.5.2, "The gender grammateme").

The number grammateme. The value of the number grammateme (of the overt demonstratives) usually corresponds to the value of the morphological category of number. For example:

O tohle mi nejde. [number=sg] (=This is not the point)
Ten už nepřijde. [number=sg] (=This (one) will not come again)
Tī už nepřijdou. [number=pl] (=These will not come again)
Newly established nodes with the \#EmpNoun t-lemma have the number grammateme value identical to the one of the dependent adjective. For example:

Mluvil také o anglickém. \{\#EmpNoun [number=sg]\} (=He also talked about the English (one))
Našel jen zelené. \{\#EmpNoun [number=pl]\} (=He only found the green (ones))
The gender grammateme. As for the demonstratives present at the surface structure, the value of the gender grammateme corresponds to the value of the morphological category of gender. For example:

Tí už nepřijdou. [gender=anim] (=These will not come again)
$O$ tohle mi nejde. [gender=neut] (=This is not the point)
Newly established nodes with the \#EmpNoun t-lemma have the gender grammateme value identical to that of the dependent adjective. For example:

Mluvil také o anglickém. \{\#EmpNoun [gender=anim|inan| neut]\} (=He also talked about the English (one))

### 5.6.1.3. Definite pronominal semantic nouns: personal pronouns

```
sempos=n.pron.def.pers
```

The subgroup of definite pronominal - personal - semantic nouns consists of:

- all personal pronouns and their possessive counterparts (e.g.: já, můj ( $=I, m y$ ) ), including the reflexives (se / si, svi̊j).

All pronouns are represented by a single t-lemma: \#PersPron (see Section 4.4, "T-lemma substitutes"). They are either pronouns present at the surface level (both reflexive and non-reflexive), or newly established nodes (in place of non-reflexive pronouns only; see Section 6.12.2.1.1, "Textual ellipsis of an obligatory argument (the t-lemma substitutes \#PersPron, \#Cor, \#QCor a \#Rcp)").

Nodes of this subgroup have the following grammatemes:

- number (see Section 5.5.1, "The number grammateme"),
- gender (see Section 5.5.2, "The gender grammateme").
- person (see Section 5.5.3, "The person grammateme"),
- politeness (see Section 5.5.4, "The politeness grammateme").

The following can be said about individual nodes of this subgroup:

- nodes representing (non-reflexive) pronouns present at the surface level.

The number grammateme. The value of the number grammateme usually corresponds to the value of the morphological category of number. For example:

```
⿺áa}[\mathrm{ number=sg] (=I)
my [number=pl] (=we)
oni [number=pl] (=they)
```

Nodes representing possessive pronouns are assigned the number grammateme value in accordance with the value of the morphological number category of the corresponding personal pronoun. For example:

```
můj[number=sg] (=my)
```

náśs [number=pl] (=our)
jejich [number=pl] (=their)
The grammateme value differs from the value of the morphological category in those cases when the polite form is used. A node with the \#PersPron t-lemma representing a second person pronoun has the sg value in its number grammateme if it refers to one person. Srov.:
$\underline{\text { Vy }}$ jste se nepřihlásil? [number=sg] (=You.pl have not registered.sg yet?)
Vy jste se ještě nepřihlásili? [number=pl] (=You.pl have not registered.pl yet?)
Jste zván $\underline{v y}$ [number=sg] is vašim [number=sg] synem. (=Both you.pl and your.pl son are invited)

NB! However, many cases cannot be decided; then the $n r$ value is assigned. For example:
LY se prihlaste se co nejdříve. [number=nr] (=You.pl register as soon as possible)
!!! Other cases of asymmetries are plural modestiae and plural majestaticus. These uses have not been identified yet and the value of the number grammateme corresponds to the surface form.

The gender grammateme. As for the third person personal and possessive pronouns, the value of the gender grammateme corresponds to the morphological gender. For example:

Ona sem nepřijde. [gender=fem] (=She is not coming)
Oni o tom vědí. [gender=anim] (=They.m.anim know about it)
As for the first and second person pronouns and newly established nodes, the grammateme value follows from the value of the morphological gender of the node the pronoun refers to. For example:

Bratr prohlásil: $\underline{\text { Já }}$ tam nejdu. [gender=anim] (= My brother said: I am not going there) (the grammateme value is given by the gender of bratr)

It is impossible to assign a single value in cases where there are more coreferred nodes of different genders or in cases there is no coreferred node. For example:

Podle Bendy není sice možné hodit přes palubu samoživitelky nebo osamělé otce, ale to neznamená, že je třeba dávat jim přednost před rodinami spořádanými. (=According to Benda, it is impossible to ignore single parents but it does not mean they should be preferred over decent families)

Podivejte se jim do očív Podhoráckém muzeu (ke 40. výročí otevření Zoo Brno) (=Look into their eyes in Podhorácké muzeum (on the occasion of the 40th anniversary of the Brno Zoo))
!!! Neither textual nor grammatical coreference (see Chapter 9, Coreference) is represented with the first and second person pronouns.

The person grammateme. The person grammateme has the value 1 with nodes representing pronouns $j a ́, m u ̊ j, m y(=I, m y, w e)$ and nás (=our); the value 2 with nodes representing $t y, t v u ̊ j$, vy (=you, your, you.pl) and vás (=your.pl); the value 3 with nodes representing on / ona / ono ( $=$ he, she, it), jeho / její (=his/its, her), oni / ony / ona (=they) and jejich (=their). For example:

Já $u z ̌ j d u$. [person=1] (=I am coming)
Tvůj názor nesdilím. [person=2] (=I don't share your view)
$\underline{\text { Vy }}$ jste se už přihlásili. [person=2] (=You.pl have already registered.pl)
$\underline{\underline{V}}$ jiste se už přihlásil. [person=2] (=You.pl have already registered.sg)
Oni se ještě nepřihlásili. [person=3] (=They haven't registered yet)
The politeness grammateme. For most nodes the grammateme has the value bas ic. This signals the default use of the pronoun. A node with the \#PersPron t-lemma and the value basic in the politeness grammateme represents pronouns like the ones in the following sentences:

Já dnes nepřijdu. [politeness=basic] (=I am not coming today)
Ty tam určitě nechod'. [politeness=basic] (=You don't go there)
On tvého psaještě neviděl. [politeness=basic] a [politeness=basic] (=He hasn't seen your dog yet)
$\underline{\text { Vy }}$ jste se už přihlásili?[politeness=basic] (=Have you.pl registered.pl yet?)
The value of the politeness grammateme has the value polite with nodes representing personal and possessive pronouns used in the polite form. For example:
$\underline{\text { VI }}$ jste se ještě nepřihlásil. [politeness=polite] (=You.pl haven't registered.sg yet)
Rozdil byste byl (vㅣ) nucen uhradit sám. [politeness=polite] (=You.pl would have to pay the difference yourself)

The value polite is filled in when the personal or possessive pronouns are used in the polite form. For example: a node with the \#PersPront-lemma and the value polite in the politeness grammateme represents pronouns like the one in the following sentence:
$\underline{\text { Vy }}$ jste se ještě nepřihlásil. [politeness=polite] (=You.pl haven't registered.sg yet)
The polite value of the politeness grammateme is usually accompanied by the sg value of the number grammateme and the value 2 of the person grammateme. The combination of the values polite and 2 with the value $p l$ is less usual - it is the situation when the speaker addresses more people in the polite form; e.g.:

Vážení čtenáři, je tomu právě rok, kdy jsme vám oznámili nepopulární informaci, že se cena našich novin zvyšuje. [politeness=polite; person=2; number=pl] (=Dear readers, it has been exactly one year since we informed you...)

Often it is impossible to distinguish the cases when the polite form is used from the cases of the default use of the second person pronoun in plural. Therefore, the politeness grammateme is often filled with the $n r$ value. For example:

$$
\underline{\text { Vy }} \text { tam nepůjdete? [politeness=n } \mathrm{r}] \text { (=You.pl are not going.pl there?) }
$$

- nodes representing reflexives.

The number, gender, person and politeness grammatemes. All the four grammatemes are filled with the inher value, i.e. the values are inherited from the coreferred node.

NB! This only concerns the reflexives corresponding to complex nodes; if the reflexive corresponds to a different node type (e.g.: jít si po svých.DPHR, nodetype = dphr (=lit. go REFL on self's; i.e. go about one's business)), it belongs to no semantic part of speech and no grammatemes are assigned to it.

## - newly established nodes with the \#PersPron t-lemma.

The number and gender grammatemes. The values of the number and gender grammatemes follow from the corresponding morphological categories of the coreferred node. In cases such a node represents the subject of a clause, the values of these grammatemes follow from the values of the morphological number and gender expressed on the verb (if they can be determined for a given form). For example:

Včera ani dnes nezavolala (ona). [number=sg; gender=fem] (=(She) called.f.sg neither yesterday nor today)

Děti slibovaly: Už nebudeme (픠) zlobit. [number=pl; gender=fem] (=The children promised: (We) are going to be good; the value of the gender grammateme follows from the morphological gender of the noun děti)

The person grammateme. The value of the person grammateme follows from what is the coreferred node (the value 1 is assigned if the coreferred node has the t-lemma já /my ( $=I$, we); the value 2 is assigned if the t-lemma is of the coreferred node is $t y / v y$ (=you.sg, you.pl); the value 3 if it is on / ona... (=he, she,..) or it follows from the person of the verb if a non-expressed pronoun occupies the subject position. For example:

Včera nezavolala (ona). [person=3] (=(She) didn't call yesterday)
!!! Neither textual nor grammatical coreference (see Chapter 9, Coreference) is represented with the first and second person pronouns.

The politeness grammateme. The politeness grammateme has the polite value in the polite form uses. If a newly established node is the subject of the clause, it is possible to identify the cases
of the polite form use on the basis of the verb's form - or sometimes with the help of the context. For example:

Už jste navštěvoval kurzy angličtiny (vㅡ)? [politeness=polite] (=Have you.pl attended.sg any English courses?)

Vážený pane, dovolite (늬), abych vám představil svou paní? [politeness=polite] ( =Sir, (you.pl) let.pl me introduce my wife to you)

Rozdil byste byl ( $\underline{v y}$ ) nucen uhradit sám. [politeness=polite] (=You.pl would.sg have to pay the difference yourself)

In other cases than polite form uses, the value basic is filled in.
Often it is impossible to distinguish the cases when the polite form is used from the cases of the default use of the second person pronoun in plural. Therefore, the politeness grammateme is often assigned the $n r$ value. For example:

Máte se (늬) přihlásit co nejdřive. [politeness=nr] (=You.pl should.pl register as soon as possible)

Rozdil uhrad'te (늬) nejpozději do deseti dnů. [politeness=nr] (=Pay.pl the difference within ten days)

### 5.6.1.4. Indefinite pronominal semantic nouns

```
sempos=n.pron.indef
```

The subgroup of indefinite pronominal semantic nouns consists of:

- relative pronouns kdo, co, který / jenž (=who, which) jaký (=which) that are in the position of a syntactic noun,
- their derivatives (also in the positions of syntactic nouns), i.e. indefinite pronouns (e.g.: někdo, některý (=somebody, some)), interrogative pronouns (kdo, který (=who, which)), negative pronouns (nikdo (=noone)) and totalizers (každý, všechen (=each, all)),
- possessive counterparts of the pronoun $k d o(=w h o)$ (i.e. $\check{c ̌ i}(=w h o s e)$ ) and its derivatives (e.g.: néčíl, ničí (=someone's, noone's)).

The following pronouns can only be semantic nouns: kdo, co (=who, what) and jenž (=which); this holds also for the derivatives of the pronouns $k d o$ and $c o$. Also the possessives derived from the pronoun $k d o$ and its derivatives are always semantic nouns.

The pronouns který (=which) and jak'́y (=what) and their derivatives are either semantic nouns or semantic adjectives depending on whether they are in a position of a syntactic noun or adjective. Cf.:

- Nevěděla, jaké šaty se by se na ples hodily. (=She didn't know what (kind of) dress would be good for the ball)

Kterou knihu si přál? (=Which book did he wish to have?)
Kup mu nějakou knihu (=Buy him a book/some book or other).
Ta barva je nijaká. (=The color is insipid (lit. no))

- these are syntactic, hence semantic adjectives (see Section 5.6.2.3, "Indefinite pronominal semantic adjectives").
- Šaty, jaké by se hodily na ples, tu neměli. (=They didn't have the kind of dress which would be good for a ball)

Knihu, kterou si práal, nemohla sehnat. (=She couldn't get the book which he wished to have)

- these are syntactic, hence semantic nouns.

The pronoun jenž which is considered a variant of ktery' at the tectogrammatical level is represented by its t-lemma: který.

Indefinite pronominal semantic nouns have the following grammatemes:

- number (see Section 5.5.1, "The number grammateme"),
- gender (see Section 5.5.2, "The gender grammateme").
- person (see Section 5.5.3, "The person grammateme"),
- type of indefiniteness: indeftype (see Section 5.5.6, "The indeftype grammateme").

The number grammateme. The value of the number grammateme usually corresponds to the value of the morphological category of number. For example:

Někdo to udělat musí. [number=sg; t_lemma= kdo] (=Somebody has to do it)
Koho jsi potkal? [number=sg; t_lemma= kdo] (=Who did you meet?)
Co potřebuješ? [number=sg; t_lemma=co] (=What do you need?)
Only in the cases when such a pronoun is the subject of a predicate in plural, the value of the number grammateme is pl : it is clear that the pronoun does not refer to a single person/thing. For example:

Řekněte, $\underline{k d o}$ přišli. [number=pl; t_lemma= kdo] (=Tell me who came.pl)
Řekněte, $\underline{k d o}$ přišel. [number=sg; t_lemma $=k d o$ ] (=Tell me who came.sg)
Verše, které kdekdo známe. [number=pl; t_lemma= kdo] (=Poems that we all/almost everybody know.pl)

Nodes representing possessives have the number grammateme filled with the $s g$ value.
Relatives (indeftype = relat) inherit the value of the grammateme from the coreferred node (i.e. number = inher). For example:

Domy, které koupili, byly postaveny ve 30. letech. [number=inher] (=The houses which they bought were built in the 30's) (které inherits the value from domy)

The value inher is also assigned to the relative $c o$ - whether it is in its common use (i.e. when it refers to a thing) or whether it is used instead of který / jenž. For example:

To, co potřebuješ, tu nemají. [number=inher] (=They don't have the thing that (lit. what) you need)
Muž, co přišel.. [number=inher]] (=The man that (lit. what) came)
Muži, co přišli... [number=inher] (=The men that (lit. what) came)
Muži, co jsem potkal na ulici... [number=inher] (=The men that I met on the street...)
The gender grammateme. The value of the gender grammateme also usually corresponds to the value of the morphological gender, i.e.kdo (=who) and its derivatives are assigned the value an im, co (=what) and its derivatives are assigned the value neut. For example:

Někdo to udělat musí. [gender=anim] (=Somebody has to do it)
$\underline{\text { Koho jsi potkal? [gender=anim] (=Who did you meet?) }}$
Co potřebuješ? [gender=neut] (=What do you need?)
Nodes representing possessive pronouns have the value anim.
Relatives (indeftype =relat) inherit the value of the grammateme from the coreferred node (i.e. gender = inher). For example:

Di̊m, který koupili... [gender=inher] (=The house which they bought)
To, co potřebuješ, tu nemají. [gender=inher] (=They don't have the thing (that, lit. what) you need)

Muži, co jsem potkal na ulici... [gender=inher] (=The men that we met on the street..)
Ženy, co přišly... [gender=inher] (=The women that came..)
The person grammateme. The person grammateme has mostly the value 3 . Other values are possible for the pronoun $k d o$ (and its derivatives) in case it is the subject of a predicate in the first or second person. For example:

Zachraň se, kdo můžeš. [person=2] (=lit. Save yourself who can.2.sg)
Verše, které kdekdo známe. [person=1; t_lemma= kdo] (=Poems which everybody/whoever know.1.pl)

Relatives (indeftype = relat) inherit the value of the person grammateme from the coreferred node. For example:

Vy, kteří jste přišli později... [person=inher] (=You.2.pl who came.2.pl later...)
In those cases when the coreferred node does not have the person grammateme, the inher value of the relative is understood as 3 . For example:

Dům, kterýgjsme koupili...[person=inher] (=The house that we bought...)
The indeftype grammateme. The indeftype grammateme expresses the semantic feature distinguishing the pronoun from the $t$-lemma it is represented by.

There are only four t-lemmas used with indefinite pronominal semantic nouns: kdo, co, který (=who, what, which) and jaky (=what). All the other pronouns are taken to be their derivatives. Which pronouns are represented by which $t$-lemmas and which values of the indeftype grammateme they get is summarized in Table 5.17, "Indefinite pronominal semantic nouns".

The first row presents the t-lemmas and in each column, there are pronouns represented by these t lemmas. The first column lists the values of the indeftype grammateme which are to be assigned to a given t-lemma if it represents the pronoun in the same row as the value of the grammateme.

For example, the pronoun nikdo (=noone) is represented by the t-lemma kdo (=who) and the value negat.

The list of pronouns is not exhaustive; in some cases there are other variants as well (e.g. apart from málokdo, kdovíkdo there are also zřidkakdo, všelikdo and other variants). Certain types of pronouns are not existent at all (in Czech); e.g. there is no totalizing pronoun for the nominal jaký; cf. the symbol in the appropriate slot).

## Table 5.17. Indefinite pronominal semantic nouns

|  | t-lemma: |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| the value of the indeftype grammateme: | kdo | co | který | jaky |
| relat | kdo | co | který, jenž | jaky |
| indef1 | někdo | пе̌со | některý | nějaký |
| indef2 | kdosi, kdos | cosi, cos | kterýsi | jakýsi |
| indef3 | kdokoli(v) | cokoli(v)... | kterýkoli(v) | jakýkoli(v) |
| indef4 | ledakdo, leckdo... | ledaco, lecco... | leckterý, ledakterý | lecjaký, ledajaký |
| indef5 | kdekdo | kdeco | kdekterý | kdejaký |
| indef6 | málokdo, kdovikdo... | máloco... | málokterý... | všelijaký... |
| inter | kdo, kdopak... | co, copak... | který, kterýpak | jaký, jakýpak |
| negat | nikdo | nic | žádný | nijaky |
| total1 | všechen | všechen, všechno, vše | - | - |
| total2 | - | - | každý | - |

### 5.6.1.5. Definite quantificational semantic nouns

```
sempos = n.quant.def
```

The subgroup of definite quantificational semantic nouns consists of:

- cardinal numerals in the position of syntactic nouns,
- fraction numerals (e.g.: třetina (=one_third)) are represented by the t-lemmas of the corresponding cardinal numerals, see Section 5.1.2, "Types of lexical derivation".

NB! Other types of numerals, i.e. ordinal, sort or set numerals, are always considered semantic adjectives, see Section 5.6.2.4, "Definite quantificational semantic adjectives".

The cardinal numerals jedna (=one) through devětadevadesát (ninety-nine) are either semantic nouns or adjectives, according to their function in the sentence (see also Section 8.10, "Numbers and numerals"). Cf.:

- Vybrali tři. (=lit. (They) chose three)
- this is a syntactic, hence also semantic noun.
- pět knih (=five books)
- this is a syntactic, hence also semantic adjective (see Section 5.6.2.4, "Definite quantificational semantic adjectives").

The cardinal numerals sto, tisic, milion (=hundred, thousand, million) (and other ending with -ion), miliarda (=billion) (and other ending with -iarda) and the fraction numerals always have the "container" meaning, hence are always semantic nouns.

Nodes for definite quantificational semantic nouns have the following grammatemes:

- number (see Section 5.5.1, "The number grammateme"),
- gender (see Section 5.5.2, "The gender grammateme"),
- type of the numeral: numertype (see Section 5.5.5, "The numertype grammateme").

The number grammateme. As for the cardinal numerals jeden (=one) through devětadevadesát (=ninety-nine), the value of their number grammateme follows from their lexical meaning. For example:

Přišel jen jeden. [number=sg] (=lit. Came only one)
Koupil dvě z nabizených knih. [number=pl] (=He bought two of the offered books)
Vybrali třicet z padesáti přihlášených zájemců. [number=pl] (=They chose thirty applicants from the fifty registered ones) ( padesát has the adjectival function here)

As for the nodes representing the cardinal numerals sto, tisic (=hundred, thousand) etc. and fraction numerals (i.e. those with the "container" meaning), the value of the number grammateme usually follows from the value of the corresponding morphological category. For example:

Přišlo sto studenti̊. [number=sg] (=One hundred students came)
Přišlo dvě stě studentů. [number=pl] (=Two hundred students came)
Koupil třetinu akcií. [number=sg] (=He bought one third of the shares)
Koupil dvě třetiny akcií. [number=pl] (=He bought two thirds of the shares)
!!! The rules regarding the number grammateme value assignment are only provisional.
The gender grammateme. The cardinal numerals jeden (=one) through devětadevadesát (=ninetynine) have the value of their gender grammateme identical to the value of the corresponding morphological category. For example:

Přišel jen jeden. [gender=anim|inan] (=lit. Came only one)
Poznal jen jednu z nich. [gender=fem] (=He only recognised one of them)
As for the cardinal numerals tři (=three) through devětadevadesát (=ninety-nine), it is possible to use the information regarding the (morphological) gender of the predicate (if expressed). For example:

Př̌šli tř̌i [gender=anim] (=lit. Came.m.anim three)
If it is impossible to determine the gender, the value $n r$ is assigned. For example:
Počital jen se dvěma. [gender=nr] (=He only counted on two (of them))
Viděl jen tři. [gender=nr] (=He only saw three (of them))
As for the numerals with the "container" meaning, the grammateme value corresponds to the value of the relevant morphological category. For example:

```
sto [gender=neut] (=hundred)
tisic}[gender=inan] (=thousand
milion [gender=inan] (=million)
miliarda [gender=fem] (=billion)
```

Nodes representing fraction numerals are assigned the value fem. For example:
třetina $[$ gender $=\mathrm{fem}$ ] (=one_third)

The numertype grammateme. The numertype grammateme expresses the semantic feature distinguishing the numeral from the $t$-lemma it is represented by. Due to the fact that only cardinal and fraction numerals can be semantic nouns, only two values of the numertype grammateme come into play here: basic (if it is a cardinal numeral) and frac (if it is a fraction numeral). For example:

Přišli jen tř̌i. [numertype=basic] (=lit. Came only three)
Koupil dvě z nabizených knih.numertype=basic] (=He bought two of the offered books)
Zdědil polovinu domu. [numertype=frac; t_lemma=dva] (=He inherited one half of the house)
Koupil $\underline{\text { setinu }}$ akcii. [numertype=frac; $\mathrm{t} \_$lemma= sto] (=He bought one hundredth of the shares)

### 5.6.2. Semantic adjectives

Semantic adjectives can be divided into the following subgroups:

- denominating semantic adjectives (see Section 5.6.2.1, "Denominating semantic adjectives");
- definite pronominal semantic adjectives: demonstratives (see Section 5.6.2.2, "Definite pronominal semantic adjectives: demonstratives");
- indefinite pronominal semantic adjectives (see Section 5.6.2.3, "Indefinite pronominal semantic adjectives");
- definite quantificational semantic adjectives (see Section 5.6.2.4, "Definite quantificational semantic adjectives");
- indefinite quantificational semantic adjectives (see Section 5.6.2.5, "Indefinite quantificational semantic adjectives");
- gradable quantificational semantic adjectives (see Section 5.6.2.6, "Gradable quantificational semantic adjectives").


### 5.6.2.1. Denominating semantic adjectives

sempos = adj. denot
The subgroup of denominating semantic adjectives consists of:

- traditional adjectives,
- traditional adverbs derived from adjectives (i.e. represented by adjectival t-lemmas).

NB! Possessive adjectives do not belong to this subgroup; they are represented by the t-lemma of the corresponding semantic noun and are described with the help of nominal grammatemes; see Section 5.6.1.1, "Denominating semantic nouns".

Denominating semantic adjectives have the following grammatemes:

- degree: degcmp (see Section 5.5.8, "The degcmp grammateme (degree)"),
- negation (see Section 5.5.7, "The negation grammateme").

The degemp grammateme. All denominating semantic adjectives have the degree grammateme. Denominating semantic adjectives are not (unlike denominating semantic adverbs) divided into the gradable and non-gradable ones. Finding the borderline between gradable and non-gradable semantic adjectives is complicated by the occassional occurrence of comparative and superlative forms of otherwise non-gradable adjectives (e.g.: čokoládový - nejčokoládovéjís čokoláda (=chocolate.adj - the most chocolate chocolate), český - češtěǰsí přistup $k$ věci $(=C z e c h-a$ more Czech approach to the
matter)). As for the semantic adverbs, these cases are rare if existent at all (non-gradable semantic adverbs could be separated as a subgroup not having the degree grammateme; see sempos $=$ adv. denot.ngrad.nneg; see Section 5.6.3.1, "Non-gradable denominating semantic adverbs that cannot be negated" and sempos = adv. denot. ngrad. neg; see Section 5.6.3.2, "Non-gradable denominating semantic adverbs that can be negated").

The value of the degree grammateme usually corresponds to the value of the morphological category of degree. For example:
přijemnéjší hudba [degcmp=comp] (=nicer music)
nejlépe strávený večer $[\mathrm{deg} \mathrm{cmp}=\mathrm{sup}](=$ an evening spent in the best way)
NB! The comp or sup values are not assigned in those cases when the higher/highest degree of a property is expressed in the periphrastic form, e.g.: vic příjemně (=more pleasantly), nejvice hezký (=the most beautiful) etc. Apart form these collocations, which may be considered equivalent to oneword comparative and superlative forms (přijemnější (=nicer, more_pleasant), nejhezčí (=the_prettiest, the_most_beautiful), there are also cases when vice (=more) / nejvice (=the_most) are combined with comparative or superlative forms (e.g.: více příjemněji (=lit. more pleasant-er) etc.). The degree grammateme value assignment is problematic in these cases. A solution is to assign a value to both parts of the collocation. For example:
vic $[$ deg $\mathrm{cmp}=\mathrm{comp}]$ příjemné $\left[\mathrm{deg} \mathrm{cmp}=\mathrm{pos} ; \mathrm{t} \_\right.$lemma $=$přijemný $]$(=more pleasantly)
nejvice $[\mathrm{deg} \mathrm{cmp}=\mathrm{sup}]$ hezký $[\mathrm{deg} \mathrm{cmp}=\mathrm{pos}](=$ the most beautiful)
vice $[\mathrm{deg} \mathrm{cmp}=\mathrm{comp}]$ hezčíl $[\mathrm{deg} \mathrm{cmp}=\mathrm{pos}]$ (=lit. more prettier)
více $[$ deg $\mathrm{cmp}=\mathrm{comp}]$ rychle $\left[\right.$ degcmp $=\mathrm{pos} ; \mathrm{t} \_$lemma= rychlý] (=lit. more fast)
As for the acomp value, there is no corresponding value of the morphological category of degree; it is assigned to nodes representing frozen comparative forms not expressing comparison (the so called absolute comparative / elative). For example:

Staršíl žena [deg cmp=acomp] (=elder(ly) woman)
muž tmavší pleti [degcmp=acomp] (=man of darker skin)
vyšší odborná škola [degcmp=acomp] (=lit. higher vocational school)
při $\underline{\text { delšim }}$ nošení $[\mathrm{deg} \mathrm{cmp}=\mathrm{acomp}] \quad$ (=with long-time (lit. longer) wear)
každá větší pobočka $[\mathrm{deg} \mathrm{cmp}=\mathrm{acomp}]$ (=every bigger branch)
Otakar Brousek starší [degcmp=acomp] (=OB, Senior)
NB! When it is not possible to decide whether the comparative is the absolute or the common one, both values are assigned.

The negation grammateme. The value of the negation grammateme tells us whether the surface form of the adjective was negated or not (the neg 0 value for the positive, the neg1 value for the negative forms). For example:
přijemná hudba [negation=neg0] (=nice music)
nedobrýy signál pro voliče $[$ negation=neg1; t_lemma $=$ dobrý] (=lit. not _good signal for voters)
dopadlo to s ním zle $\left[\right.$ negation=neg $0 ; t_{\text {_ }}$ lemma $=$ zlý] (=it turned out badly for him)
zachoval se k nám nepékně [negation=neg1; t_lemma= pěkný] (=He treated us not_well)

NB! Not every prefix ne-represents the neg 1 value in the negation grammateme - not in the case there is no positive form of the lexical item in question. For example:

krása nesmírná [negation=neg 0; t_lemma= nesmirný] (=immense beauty)
!!! Dividing denominating semantic adjectives into those that can and those that cannot be negated (as with the denominating semantic adverbs; see Section 5.6.3, "Semantic adverbs") is complicated by the fact that some adjectives, which are usually found only in their positive forms, can occassionaly be negated, too; for example: český (=Czech) - nečeský (=non_Czech) etc. The negation grammateme is therefore relevant for denominating semantic adjectives as well.

### 5.6.2.2. Definite pronominal semantic adjectives: demonstratives

sempos $=$ adj.pron.def.demon
The subgroup of definite pronominal - demonstrative - semantic adjectives consists of:

- demonstrative and identifying pronouns in the positions of syntactic adjectives.

Nodes of this subgroup have no grammatemes.
Examples:
Ten dům už koupili. (=They have bought the house already)
Takový přistup se mi nelibi. (=I don't like this approach)
On už je takový. (=He is like that)
Měl tentýžz problém jako ty. (=He had the same problem as you)
!!! In the current version of PDT, the value adj. pron. def. demon is assigned to all nodes representing the pronoun takovy'. However, it will be necessary to distinguish the cases when the pronoun is a semantic noun from the cases when it is a semantic adjective in the future (i.e. to decide when to assign the value adj.pron.def.demon and when n.pron.def.demon)-depending on its syntactic position. See also Section 6.5.3.2, "Correlative pairs with the supporting expression "takový"".

### 5.6.2.3. Indefinite pronominal semantic adjectives

sempos = adj.pron.indef
The subgroup of indefinite pronominal semantic adjectives consists of indefinite pronouns with the adjectival function:

- relative pronouns $k t e r y ́(=w h i c h)$ and jaký (=what), if their syntactic function (position) is adjectival.
- their derivatives if in the position of syntactic adjectives, i.e. indefinite (e.g.: nějaký (=some)), interrogative (e.g.: který (=which), negative (e.g.: nijaký (=no)) and totalizing pronouns (e.g.: každý (=every)); see Section 5.1.2, "Types of lexical derivation".

The pronouns který (=which) and jak'́y (=what) and their derivatives are either semantic nouns or semantic adjectives depending on whether they are in the position of a syntactic noun or adjective. Cf.:

- Nevéděla, jaké šaty se by se na ples hodily. (=She didn't know what (kind of) dress would be good for the ball)

Kterou knihu si přál? (=Which book did he wish to have?)

Kup mu nějakou knihu (=Buy him a book/some book or other).
Ta barva je nijaká. (=The color is insipid (lit. no))
Kup mu nějakou knihu (=Buy him a book/some book or other).
Každú člověk má problémy. (=Everyone has problems)

- these are syntactic, hence semantic adjectives.
- Šaty, jaké by se hodily na ples, tu neméli. (=They didn't have the kind of dress which would be good for a ball)

Knihu, kterou si práll, nemohla sehnat. (=She couldn't get the book which he wished to have)

- these are syntactic, hence semantic nouns (see Section 5.6.1.4, "Indefinite pronominal semantic nouns").

Indefinite pronominal semantic adjectives have the following grammatemes:

- the indeftype grammateme (see Section 5.5.6, "The indeftype grammateme").

The indeftype grammateme. The indeftype grammateme expresses the semantic feature distinguishing the pronoun from the $t$-lemma it is represented by. There are only two $t$-lemmas used with indefinite pronominal semantic adjectives: který (=which) and jaký (=what). All other pronouns are taken to be their derivatives. Which pronouns are represented by which t-lemmas and which values of the indeftype grammateme they get is summarized in Table 5.18, "Indefinite pronominal semantic adjectives"

The first row presents the t-lemmas and in each column, there are pronouns represented by these t lemmas. The first column lists the values of the indeftype grammateme which are to be assigned to a given t-lemma if it represents the pronoun in the same row as the value of the grammateme.

For example, the pronoun veškerý (=all) is represented by the t-lemma který (=which) and the value totall.

The list of pronouns is not exhaustive; in some cases there are other variants as well (e.g. apart from všelijaký there are also bůhvíjaký, kdovíjaký and other variants). Certain types of pronouns are not existent in Czech at all; e.g. there is no totalizer for the adjectival jaký; cf. the - symbol in the appropriate slot).

## Table 5.18. Indefinite pronominal semantic adjectives

|  | t-lemma: |  |
| :--- | :--- | :--- |
| the value of the indeftype grammateme: | který | jaký |
| relat | který | jaký |
| indef1 | nékterý | nějaký |
| indef2 | kterýsi | jakýsi |
| indef3 | kterýkoli(v) | jakýkoli(v) |
| indef4 | leckterý, ledakterý | lecjaký, ledajaký |
| indef5 | kdekterý | kdejaký |
| indef6 | málokterý... | všelijaký.. |
| inter | který, kterýpak | jaký, jakýpak |
| negat | žádný | nijaký |
| total1 | všechen, veškerý | - |
| total2 | každý | - |

### 5.6.2.4. Definite quantificational semantic adjectives

```
sempos=adj.quant.def
```

The subgroup of definite quantificational semantic adjectives consists of:

- definite cardinal numerals in the position of syntactic adjectives,
- definite ordinal numerals (e.g.: třetí, stý (=the third, hundredth)), set numerals (e.g.: troje, stery (=three, one_hundred_sets_of)) and sort numerals (e.g.: trojí, sterý (=three, one_hundred_kinds_of)), which are derived from (and therefore represented by) the corresponding cardinal numerals; see Section 5.1.2, "Types of lexical derivation"),
- adverbs of the type dvakrát / podruhé (=twice, for_the_second_time), also represented by the tlemmas of the corresponding cardinal numerals (see Section 5.1.3, "Mixed type"),
- the numeral tolik (=so_much) and its derivatives (tolikátý, tolikery, tolikerý (the n-th, so_many_sets/kinds_of)) and adverbs tolikrát (=so_many_times) and potolikáté (=for_the_nth_time).

The cardinal numerals jedna (=one) through devětadevadesát (ninety-nine) are either semantic nouns or adjectives, according to their function in the sentence (see also Section 8.10, "Numbers and numerals"). Cf.:

- pět knih (=five books)

Přišli tři muži (=Three men came)
Uchazeči byli dva (=There were two applicants)
Auta má dvě (=He has two cars)

- these are syntactic, hence also semantic adjectives.
- Vybrali tří (=lit. They chose three).
- this is a syntactic, hence also semantic noun (see Section 5.6.1.5, "Definite quantificational semantic nouns").

The numerals sto, tisic, milion (=hundred, thousand, million) or miliarda (=billion) etc. have the "container" meaning and are always semantic nouns (see Section 5.6.1.5, "Definite quantificational semantic nouns"). Nodes with the t-lemmas sto, tisic are only considered semantic adjectives if they represent ordinal numerals (stý, tisicí (=the hundredth, thousandth) etc.), set numerals (stery, tisicery (=one hundred, thousand sets of)) or sort numerals (sterý, tisicerý (=one hundred, thousand kinds of)), as well as if they represent adverbs of the type stokrát (=hundred_times) or posté (=for_the_hundredth_time).

Similarly, adverbs of this type, derived from the numerals jeden (=one) through devětadevadesát (=ninety-nine) (e.g.: jedenkrát, dvakrát / podruhé, podevětadevadesáté (=once, twice / for the first, second time)) are represented by the t-lemmas of the corresponding cardinal numerals.

The t-lemma tolik (=so_much) is always (i.e. whether it represents tolik, tolikátý or tolikrát etc.) considered a semantic adjective.

Definite quantificational semantic adjectives have the following grammatemes:

- the numertype grammateme (see Section 5.5.5, "The numertype grammateme").

The numertype grammateme. The numertype grammateme expresses the semantic feature distinguishing the numeral from the $t$-lemma it is represented by. With definite quantificational semantic adjectives, there are four values of the numertype grammateme: basic (for cardinal numerals - or set numerals combined with pluralia tantum), ord (for ordinal numerals), set (for set numerals), kind (for sort numerals).

NB! Set numerals combined with pluralia tantum express - just like cardinal numerals with nouns that make use of the singular - plural opposition - simply the quantity of the denoted objects; the numertype grammateme has the value basic (troje dveře (=three doors) is just like trí okna (=three windows)).

Examples:
Koupil tř̌i domy. [numertype=basic; t_lemma= tři] (=He bought three houses)
Natřel troje dveře. [numertype=basic; t_lemma=tři] (=He painted three doors)
Umistil se na třetím mistě. [numertype=ord; t_lemma= tři] (=He came in third)
Doběhl do cile jako stý. [numertype=ord; t_lemma=sto] (=He came in hundredth)
Ztratil už troje kliče. [numertype=set; t_lemma=tři] (=He has already lost three bunches of keys)

Má dvojí občanství. [numertype=kind; t_lemma=dva] (=He has two citizenships)
Tolik připominek nečekal. [numertype=basic; t_lemma= tolik] (=He didn't expect so many comments)

Tolikery kliče nepotřebuje. [numertype=set; t_lemma= tolik]] (=He doesn't need so many (sets of) keys)

Adverbs of the type jedenkrát, dvakrát, stokrát, tolikrát (=once, twice, hundred_times, so_many_times) etc. are represented by the t-lemma of the corresponding cardinal numeral (jeden, dva, sto, tolik (=one, two, hundred, so_much/many) etc.) and the value of the numertype grammateme is basic.

The adverbs jednou and jedinkrát are considered variants of the adverb jedenkrát (=once) and are all represented by a single t-lemmajeden (=one) and the value of the numert ype grammateme is basic.

Adverbs of the type poprvé, podruhé, posté, potolikáté ( = for the first / second / hundredth / n-th time) etc. are also represented by the t -lemma of the corresponding cardinal numeral (jeden, dva, sto, tolik (=one, two, hundred, so_much/many) etc.) and the value of the numertype grammateme is ord.

The fact that these nodes, having the $t$-lemmas of cardinal numerals and the value of the grammateme either basic or ord represent adverbs and not cardinal or ordinal numerals follows from their function in the sentence. Such an adverbial function is expressed by the assigned functor (most often TWHEN or THO). Cf.:

Volal jsem tam už dvakrát.THO [numertype=basic; t_lemma=dva] (=I have called there twice already)

Přijal už dvě.RSTR návštěvy. [numertype=basic; t_lemma=dva] (=He has already accepted two visitors)

Vysvětluje to už podruhé.TWHEN [numertype=ord; t_lemma=dva] (=He is explaining the thing for the second time already)

Skončil na druhém.RSTR mistě.[numertype=ord; t_lemma=dva] (=He took second place)
Do cíle doběhl jako druhý.COMPL [numertype=ord; t_lemma=dva] (=He came in second)

### 5.6.2.5. Indefinite quantificational semantic adjectives

sempos = adj.quant.indef

The subgroup of indefinite quantificational semantic adjectives consists of:

- the indefinite cardinal numeral kolik (=how_many/much) (e.g.: kolik psů (=how_many_dogs)),
- its indefinite (e.g.: několik (=several)) and interrogative variants (e.g: kolikpak (=how_many)) (see Section 5.1.2, "Types of lexical derivation"),
- indefinite ordinal numerals (e.g.: kolikátý /nékolikátý (=how_many.ordinal, n-th/several.ordinal)), indefinite set (e.g.: kolikery / nékolikery (=how_many/several_sets_of) and sort numerals (e.g.: kolikerý / několikerý (=how_many/several_sorts_of); i.e. derivatives of the numeral kolik (see Section 5.1.3, "Mixed type"),
- adverbs of the type kolikrát / nëkolikrát (=how_many_times/several_times) and pokolikáté / ponékolikáté (=apprx. for_the_n-th_time) are also represented by kolik (=how_many/much) (see Section 5.1.3, "Mixed type").

Indefinite quantificational semantic adjectives have the following grammatemes:

- numeral type: numertype (see Section 5.5.5, "The numertype grammateme"),
- type of indefiniteness: indeftype (see Section 5.5.6, "The indeftype grammateme").

The numertype grammateme. With indefinite quantificational semantic adjectives, there are four values of the numertype grammateme: basic (for cardinal numerals - or set numerals combined with pluralia tantum), ord (for ordinal numerals), set (for set numerals), kind (for sort numerals).

NB! Set numerals in combination with pluralia tantum express - just like cardinal numerals with nouns that make use of the singular - plural opposition - simply the quantity of the denoted objects: the numertype has the value basic.

Examples:
Kolik domů koupil? [numertype=basic; t_lemma=kolik] (=How many houses has he bought?)
$\underline{\text { Kolikery }}$ dveře už prošel? [numertype=basic; t_lemma=kolik] (=How many doors has he gone through?)

Natřel několikery dveře. [numertype=basic; t_lemma=kolik] (=He painted several doors)
Kolikátı́́pokus jsi provedl? [numertype=ord; t_lemma=kolik] (=Which (lit. how_many_ordinal) experiment have you done?)

Ztratil už několikery klíče. [numertype=set; t_lemma=kolik] (=He has already lost several bunches/sets of keys)

Člověk může mít několikeré občanství. [numertype=kind; t_lemma=kolik] (=People can have several (kinds of) citizenship(s))

Adverbs of the type kolikrát / nëkolikrát are represented by the t-lemma of the relevant cardinal numeral (kolik) and the value of the numertype grammateme is basic.

Adverbs of the type pokolikáté / poněkolikáté etc. are represented by kolik and the value of the numertype grammateme is ord.

The fact that these nodes, having the t-lemmas of cardinal numerals and the value of the grammateme either basic or ord represent adverbs and not cardinal or ordinal numerals follows from their function in the sentence - such an adverbial function is expressed by the functor assigned to the node (most often TWHEN or THO). Cf.:

Volal jsem tam už několikrát.THO [numertype=basic; t_lemma= kolik] (=I have called there several times already)

Přijal už několik.RSTR návštěv. [numertype=basic; t_lemma=kolik] (=He has already accepted several visitors)

Vysvětluje to už poněkolikáté.TWHEN [numertype=ord; t_lemma= kolik] (=He is explaining the thing for the n-th time already)

Na kolikátém.RSTR mistě skončil. [numertype=ord; t_lemma=kolik] (=Which place did he take?)

The indeftype grammateme. The indeftype grammateme expresses the semantic feature distinguishing the numeral from the t-lemma it is represented by. The only t-lemma for indefinite quantificational semantic adjectives is kolik. All other numerals are considered derived from this t-lemma.

All combinations of the numertype and indeftype grammateme values with nodes the $t$-lemma of which is kolik - i.e. all derivatives od this t-lemma - are in Table 5.19, "Indefinite quantificational semantic adjectives".

The first row lists all the values of the numertype grammateme; the first column lists the values of the indeftype grammateme. All the numerals (in the individual slots) are represented by a single t-lemma, namely kolik. Different combinations of this t-lemma, a certain value of the numertype grammateme and certain value of the indeftype grammateme represent different numerals.

For example, několikerý (=several_kinds_of) is represented by the t-lemma kolik (=how_many) and the values kind and indef1.

The list is not complete; in some cases, there are also other variants. Certain types of derivatives (combinations) are not existent at all (which is indicated by the - symbol in the relevant slot).

Table 5.19. Indefinite quantificational semantic adjectives

| t_lemma=kolik | the value of the numertype grammateme: |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| the value of the indeftype grammateme: | basic | set | kind | ord |
| relat | kolik (kličư), kolikery (dveře) | kolikery (kliče) | kolikerý | kolikátý |
| indef1 | několik (kličư), několikery (dveře) | několikery (kliče) | několikerý | několikátý |
| indef2 | - | - | - | - |
| indef3 | - | - | - | - |
| indef4 | - | - | - | - |
| indef5 | - | - | - | - |
| indef6 | kdovikolik (kličư), kdovikolikery (dveře)... | kdovikolikery (kliče)... | kdovikolikerý... | kdovikolikátý... |
| inter | kolik (kličư), kolikery (dveře) | kolikery (kliče) | kolikerý | kolikátý |
| negat | - | - | - | - |
| total1 | - | - | - | - |
| total2 | - | - | - | - |

!!! It has turned out that indefinite numerals can be in the positions of syntactic nouns as well. In the future versions of PDT, it will be necessary to delimit a subgroup of indefinite quantificational semantic nouns, too (n.quant.indef) and distinguish the values adj.quant.indef and n . quant. indef, with indefinite numerals, depending on their syntactic position. See also Section 8.10.1.1, "Numerals with the role of an attribute (RSTR)".

### 5.6.2.6. Gradable quantificational semantic adjectives

```
sempos = adj.quant.grad
```

The subgroup of gradable quantificational semantic adjectives consists of:

- gradable indefinite cardinal numerals in the positions of syntactic adjectives: málo účastniků, mnoho chyb (=few participants, many mistakes)),
- adverbs of the type málokrát ( $=$ few_times) represented by the $t$-lemma of the corresponding indefinite cardinal numeral (see Section 5.1.3, "Mixed type").

Gradable quantificational semantic adjectives have the following grammatemes:

- degree: degcmp (see Section 5.5.8, "The degcmp grammateme (degree)"),
- numeral type: numertype (see Section 5.5.5, "The numertype grammateme").

The degemp grammateme. The value of the degree grammateme usually corresponds to the value of the morphological category of degree. Examples:
hodné zájemců [deg cmp=pos] (=many applicants/interested people)
vice připominek $\left[\mathrm{degcmp}=\mathrm{comp} ; \mathrm{t} \_\right.$lemma $=$hodné (=more comments)
nejméně chyb $\left[\mathrm{deg} \mathrm{cmp}=\mathrm{sup} ; \mathrm{t} \_\right.$lemma= málo] (=the least mistakes)

As for the acomp value, there is no corresponding value of the morphological category of degree; it is assigned to nodes representing frozen comparative forms not expressing comparison. E.g.:
děti z $\underline{\text { méně }}$ movitých rodin $[\mathrm{degcmp}=\mathrm{acomp} ; \mathrm{t}$ _lemma= málo] (=children from less well-off families)
NB! The comp or sup values are also assigned in those cases when the higher/highest degree of a property is expressed by the periphrastic form, e.g.: vic přijemně (=more pleasantly), nejvice hezký (=the most beautiful) etc. Denominating semantic adjectives (see Section 5.6.2.1, "Denominating semantic adjectives") are (unlike the quantificational ones) assigned the pos value for the degcmp grammateme in these cases. For example:
vic $[$ degcmp $=\mathrm{comp} ; \mathrm{t}$ _lemma $=$ hodnĕ $]$ přijemné $[\mathrm{deg} \mathrm{cmp}=\mathrm{pos}]$ (=more pleasantly)
nejvice $[\mathrm{deg} \mathrm{cmp}=\mathrm{sup} ; \mathrm{t}$ _lemma= hodnè] hezký $[\mathrm{degcmp}=\mathrm{pos}]$ (=the most beautiful)
$\underline{\text { méné }\left[\mathrm{deg} \mathrm{cmp}=\mathrm{comp} ; ~ t \_l e m m a=\text { málo] rychle }[\mathrm{degcmp}=\mathrm{pos}](=\text { less fast }) ~\right.}$
The numertype grammateme. Numerals of this subgroup are always cardinal numerals - the value of the numertype grammateme is always basic. For example:

Prohlédli si už mnoho bytů. [numertype=basic] (=They have already seen over many flats)
Prošel už mnoho dveři.[numertype=basic] (=He has gone through many doors)
nejméně chyb [numertype=basic] (=the least mistakes)
Adverbs of the type málokrát, mnohokrát are represented by the t-lemma of the relevant cardinal numeral (málo, mnoho) and the value of their numertype grammateme is basic. The fact that these nodes, having the t-lemmas of cardinal numerals and the basic value of the grammateme represent adverbs and not cardinal numerals follows from their function in the sentence - this adverbial function is expressed by the functor assigned to the node (usually THO). For example:

Volal jsem tam už mnohokrát.THO [numertype=basic; t_lemma= mnoho] (=I have called there already many times)

Přijal už mnoho.RSTR návštěv. [numertype=basic; t_lemma= mnoho] (=He has already accepted many visitors)

Adverbs of the type potřetí / pokolikáté (=for_the_third/n-th_time) derived from these numerals are non-existent in Czech.

### 5.6.3. Semantic adverbs

Semantic adverbs can be divided into the following subgroups:

- non-gradable denominating semantic adverbs that cannot be negated (see Section 5.6.3.1, "Nongradable denominating semantic adverbs that cannot be negated");
- non-gradable denominating semantic adverbs that can be negated (see Section 5.6.3.2, "Nongradable denominating semantic adverbs that can be negated");
- gradable denominating semantic adverbs that cannot be negated (see Section 5.6.3.3, "Gradable denominating semantic adverbs that cannot be negated");
- gradable denominating semantic adverbs that can be negated (see Section 5.6.3.4, "Gradable denominating semantic adverbs that can be negated");
- definite pronominal semantic adverbs (see Section 5.6.3.5, "Definite pronominal semantic adverbs");
- indefinite pronominal semantic adverbs (see Section 5.6.3.6, "Indefinite pronominal semantic adverbs").


### 5.6.3.1. Non-gradable denominating semantic adverbs that cannot be negated

```
sempos = adv.denot.ngrad.nneg
```

The subgroup of non-gradable denominating semantic adverbs that cannot be negated consists of:

- adverbs that are neither gradable nor can be negated (and which are not adjectival at the same time, i.e. they are not represented by adjectival t-lemmas).

Nodes of this subgroup have no grammatemes.
Examples:
Má bezesporu pravdu. (=She is indisputably right)
Zůstal dnes doma. (=He stayed at home today)
Bydlí nahoře. (=He lives upstairs)

### 5.6.3.2. Non-gradable denominating semantic adverbs that can be negated

sempos $=a d v . d e n o t . n g r a d . n e g$
The subgroup of non-gradable denominating semantic adverbs that can be negated consists of:

- adverbs that are not gradable but which can be negated (and which are not adjectival at the same time, i.e. they are not represented by adjectival t-lemmas); e.g.: přiliš (=too (much)).

Denominating semantic adverbs of this subgroup have only one grammateme, namely:

- negation (see Section 5.5.7, "The negation grammateme").

The negation grammateme. The neg 1 value is assigned if the node represents an adverb negated at the surface level. The neg 0 value is assigned if the node represents an adverb that is not negated at the surface level. For example:

Je to nepřiliš dobré. [negation=neg1; t_lemma= přiliš] (=It is not_very good)
Je př̌liš̆ sebevědomý. [negation=neg $0 ; \mathrm{t}$ _lemma= přiliš] (=He is too self-confident)

### 5.6.3.3. Gradable denominating semantic adverbs that cannot be negated

```
sempos = adv.denot.grad.nneg
```

The subgroup of gradable denominating semantic adverbs that cannot be negated consists of:

- adverbs that are gradable but which cannot be negated (and which are not adjectival at the same time, i.e. they are not represented by adjectival t-lemmas); e.g.: dole, pozdě, brzy (=down, late, soon/early).

This subgroup of denominating semantic adverbs have only one grammateme, namely:

- degree degcmp (see Section 5.5.8, "The degcmp grammateme (degree)").

The degemp grammateme. The value of the grammateme usually corresponds to the value of the morphological category. For example:

Je už přiliš pozdě. [degcmp=pos] (=It is already too late)
Přijdu o něco dříve než včera. [degcmp=comp; $\mathrm{t}_{\mathrm{l}} \mathrm{l} \mathrm{emma}=$ brzy] (=I will come a bit earlier than yesterday)

Dům ležel nejniže z celé vesnice. [degcmp=sup; t_lemma= dole] (=The house was situated at the lowest point of the whole village)

As for the acomp value, there is no corresponding value of the morphological category of degree; it is assigned to nodes representing frozen comparative forms not expressing comparison. For example:
$\underline{\text { dřive }\left[d e g c m p=a c o m p ; ~ t \_l e m m a=~ b r z y\right] ~ c ̌ i ~ p o z d e ̌ j i ~\left[d e g c m p=a c o m p ; ~ t \_l e m m a=~ p o z d e ̌\right] ~}$ (=sooner or later)

### 5.6.3.4. Gradable denominating semantic adverbs that can be negated

```
sempos = adv.denot.grad.neg
```

The subgroup of gradable denominating semantic adverbs that can be negated consists of:

- adverbs that are gradable and that can be negated as well (and which are not adjectival at the same time, i.e. they are not represented by adjectival t-lemmas); e.g.: daleko, blizko (=far, close).

This subgroup of denominating semantic adverbs have the following grammatemes:

- degree: degcmp (see Section 5.5.8, "The degcmp grammateme (degree)"),
- negation (see Section 5.5.7, "The negation grammateme").

The degemp grammateme. The value of the grammateme usually corresponds to the value of the morphological category. For example:

Petr bydlí daleko za Prahou.[degcmp=pos] (=Petr lives far from (lit. behind) Praha)
Bliž bydlí Pavel. [degcmp=comp; t_lemma= blizko] (=Pavel lives closer)
$\underline{\text { Nejbliž bydlí Pavlina. [degcmp=sup; t_lemma= blizko] (=Pavlína lives nearest (to Praha/us..)) }}$
As for the acomp value, there is no corresponding value of the morphological category of degree; it is assigned to nodes representing frozen comparative forms not expressing comparison. For example:
bliže nespecifikovaná trhavina $\left[\mathrm{deg} \mathrm{cmp}=\mathrm{acomp} ; \mathrm{t}_{\text {_ }}\right.$ lemma= blizko] (=further (lit.closer) unspecified explosive)

The negation grammateme. The neg 1 value is assigned if the node represents an adverb negated at the surface level. The neg 0 value is assigned if the adverb occurs in its positive form. For example:

Pracuje nedaleko od domova. [negation=neg1; t_lemma= daleko] (=He works not_far from his home)

Pracuje daleko od domova. [negation=neg $0 ; \mathrm{t}_{\text {_ }} \mathrm{lemma}=$ daleko] (=He works far from his home) Náś cil je už blizko. [negation=neg 0; t_lemma= blizko] (=Our destination is close)

### 5.6.3.5. Definite pronominal semantic adverbs

$$
\text { sempos }=a d v \cdot \text { pron.def }
$$

The subgroup of definite pronominal semantic adverbs consists of:

- definite demonstrative and identifying pronominal adverbs (e.g.: tady, tam, ted', tak, proto, tamtéž (=here, there, now, so, therefore, at_the_same_place),
- adverbs derived from these (e.g.: tudy (=this_way) is derived from tady (=here), odted' (=from_now) is derived from ted" (=now); see Section 5.1.1, "Types of the syntactic derivation").

Nodes of this subgroup have no grammatemes.
Pronominal adverbs with directional meanings (answering the questions "where from", "which way", "where to") are represented by the t-lemma of the corresponding locative adverb. Pronominal adverbs with different temporal meanings (answering the questions "from when", "until when") are represented by the t -lemma of the corresponding adverb with the simplest temporal meaning (answering the question "kdy (=when)").

Adverbs $t u$ (the locative meaning) and $z d e$ are considered variants of the adverb tady (=here) - and are all represented by the t-lemma tady.

Adverbs $t u$ (=the temporal meaning) and nyni are considered variants of the adverb ted' (=now) - and are represented by the t-lemma ted'.

Adverbs pak and poté are considered variants of the adverb potom (=then) and are all represented by the t-lemma potom.

What is the actual adverb represented by a given node follows from the combination of the t-lemma and the functor.

For example: a node with the t-lemma tady (=here) and the DIR1 functor represents the adverb odtud (=from_here), a node with the t-lemma ted' (=now) and the TSIN functor represents the adverb odted' (=from_now) etc.

Individual t-lemmas of definite pronominal adverbs, their derivatives and functors assigned to them are presented in Table 5.20, "Definite (locative/directional) pronominal semantic adverbs" and Table 5.21, "Definite (temporal) pronominal semantic adverbs".

The first row presents the t -lemmas and, in each column, there are adverbs represented by these t lemmas. The first column lists the functors which are to be assigned to the given t-lemma if it represents the adverb in the same row as the functor.

For example: the adverb tamtudy (=that_way) is represented by the t-lemma tam (=there) and the DIR2 functor; doted' (=until_now) is represented by ted' (=now) with the TTIL functor etc.

Not all types of directional and temporal modifications are available for a particular t-lemma (cf. the - symbol in the relevant slot).

Table 5.20. Definite (locative/directional) pronominal semantic adverbs

|  | t -lemma: |  |  |
| :--- | :--- | :--- | :--- |
| functor: | tady | tam | tamtéz |
| LOC | tady / tu / zde | tam | tamtéż |
| DIR1 | odtud / odsud | odtamtud | - |
| DIR2 | tudy | tamtudy | - |
| DIR3 | sem / potud / posud | tam | tamtéž |

Table 5.21. Definite (temporal) pronominal semantic adverbs

|  | t-lemma: | potom | tehdy | tenkrát | onehdy | předtím |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| functor: | ted' | potom / pak / poté | tehdy | tenkrát | onehdy | předtím |
| TWHEN | ted'/tu / nyní | - | - | - | - | - |
| TSIN | odted' | - | - | - | - |  |
| TTILL | doted'/ doposud / potud / posud | - | - |  |  |  |

### 5.6.3.6. Indefinite pronominal semantic adverbs

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sempos=adv.pron.indef
```

The subgroup of indefinite pronominal semantic adverbs consists of:

- indefinite pronominal adverbs (e.g.: kdy, jak (=when, how), proč (=why)),
- adverbs derived from these: někde / nikde (=somewhere / nowhere), někdy / nikdy, nějak / nijak (=sometime / never, somehow / in no way) (i.e. indefinite, interrogative, negative and totalizing adverbs; see Section 5.1.2, "Types of lexical derivation"),
- directional or various temporal adverbs of the type kudy / nëkudy, kam / nikam, odkdy / dokdy (=which_way/some_way, where_to/to_no_place, from_when/until_when) etc. (see Section 5.1.3, "Mixed type").

Indefinite pronominal semantic adverbs have only one grammateme, namely:

- indeftype (see Section 5.5.6, "The indeftype grammateme").

The indeftype grammateme. The subgroup of indefinite pronominal semantic adverbs only makes use of four t-lemmas: $k d e$ (=where), $k d y$ (=when), jak (=how) and proč (=why). Other adverbs are taken to be their derivatives. Two types of derivation are distinguished:

## A. t-lemma + the indeftype grammateme.

Indefinite, interrogative, negative and totalizing pronominal adverbs are represented by the t lemmas of their corresponding relative adverbs.

The semantic feature in which a given adverb differs from the $t$-lemma it is represented by is encoded in the indeftype grammateme.

## B. t-lemma + functor.

Pronominal adverbs with a directional meaning (answering the questions "where from", "which way", "where to") are represented by the t-lemma of the corresponding locative adverb (kde (=where)).

Similarly, pronominal adverbs with different temporal meanings (answering the questions "from when", "until when" etc.) are represented by the t-lemma of the corresponding adverb with the simplest temporal meaning $(k d y$ (=when $)$ ).

Which directional or locative adverb the given node represents follows from the combination of the $t$-lemma and the functor.

Type A derivation. The derivation making use of the indeftype grammateme values is the only one used with the adverbs jak (=how) and proč (=why). Which adverbs are represented by which tlemmas and which values of the indeftype grammateme they get is summarized in Table 5.22, "Indefinite pronominal semantic adverbs".

The first row presents the $t$-lemmas and, in each column, there are adverbs represented by these $t$ lemmas. The first column lists the values of the indeftype grammateme which are to be assigned to the given t-lemma if it represents the adverb in the same row as the value of the grammateme.

For example: the adverb všelijak (=in_various_ways) is represented by the t-lemma jak (=how) and the value indef 6 .

The list is not exhaustive; in some cases there are other variants as well (e.g. apart from všelijak there are also buihvijak, kdovijak and other variants). Certain types of pronominal adverbs are not existent at all (e.g. there is no totalizer for jak; cf. the - symbol in the appropriate slot).

Table 5.22. Indefinite pronominal semantic adverbs

|  | t-lemma: |  |
| :--- | :--- | :--- |
| the value of the indeftype grammateme: | jak | proč |
| relat | jak | proč |
| indef1 | nějak | - |
| indef2 | jaksi | - |
| indef3 | jakkoli(v) | - |
| indef4 | lecjak, ledajak | - |
| indef5 | - | - |
| indef6 | všelijak | kdovíproč |
| inter | jak, jakpak | proč |
| negat | nijak | - |
| total1 | - | - |
| total2 | - | - |

Type A+B derivation. Both types of derivation are used with adverbs derived from kde (=where) and $k d y$ (=when). The t-lemma $k d e$, then, represents the relative, indefinite, interrogative, negative and totalizing adverbs as well as their directional counterparts. Similarly, the t-lemma $k d y$ represents the corresponding relative, indefinite, interrogative, negative and totalizing adverbs and their counterparts carrying various temporal meanings. All derivatives represented by the t-lemma kde are presented in Table 5.23, "Indefinite (locative/directional) pronominal semantic adverbs", the derivatives represented by $k d y$ are in Table 5.24, "Indefinite (temporal) pronominal semantic adverbs".

The first row lists the functors, the first column lists the values of the indeftype grammateme. Whenever the t-lemma ( $k d e$ or $k d y$ ) represents one of the listed adverbs, it gets the functor in the head of the column the adverb is situated in and the value of the indeftype grammateme that is in the same row as the adverb.

For example: the adverb nikudy (=lit. no_way) is represented by the t-lemma $k d e$, the DIR2 functor and the negat value of the indeftype grammateme; navždy (=forever) is represented by $k d y$, the TFHL functor and the totall value of the indeftype grammateme.

Certain types of adverbs are not existent at all (which is indicated by the - symbol in the appropriate slot).

Table 5.23. Indefinite (locative/directional) pronominal semantic adverbs

| t-lemma: kde | functor: |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| the value of the indeftype gram- <br> mateme: | LOC | DIR1 | DIR2 | DIR3 |
| relat | kde | odkud | kudy | kam |
| indef1 | někde | odněkud | někudy | někam |
| indef2 | kdesi | odkudsi | kudysi | kamsi |
| indef3 | kdekoli(v) | odkudkoli(v) | kudykoli(v) | kamkoli(v) |
| indef4 | ledakde, leckde... | - | - | - |
| indef5 | - | - | - | - |
| indef6 | málokde... | - | - | - |
| inter | kde, kdepak | odkud | kudy | kam |
| negat | nikde | odnikud | nikudy | nikam |
| total1 | všude | odevšad / odevšud | všudy | všude |
| total2 | - | - | - | - |

Table 5.24. Indefinite (temporal) pronominal semantic adverbs

| t-lemma: $\boldsymbol{k} \boldsymbol{l} \boldsymbol{y}$ functor: |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| the value of the indeftype <br> grammateme: | TWHEN | TSIN | TTIL | TFHL | THO |
| relat | kdy | odkdy | dokdy / dokud | - | - |
| indef1 | někdy | - | - | - | - |
| indef2 | kdysi | - | - | - | - |
| indef3 | - | - | - | - | kdykoli(v) |
| indef4 | ledakdy... | - | - | - | - |
| indef5 | - | - | - | - | - |
| indef6 | málokdy ... | - | - | - | - |
| inter | kdy, kdypak | odkdy | dokdy / dokud | - | - |
| negat | nikdy | - | - | - | - |
| total1 | vždy /vždycky | - | - | navždy / <br> navždycky | - |
| total2 | - | - | - | - | - |

### 5.6.4. Semantic verbs

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sempos = v
```

Semantic verbs include all nodes representing finite verbal forms, infinitives, participles and transgressives (gerunds).

There are seven verbal grammatemes. These are:

- the verbal modality grammateme: verbmod (see Section 5.6.4.1, "Values of the verbal modality grammateme"),
- the deontic modality grammateme: deontmod (see Section 5.6.4.2, "Values of the deontic modality grammateme"),
- the dispositional modality grammateme: dispmod (see Section 5.6.4.3, "Values of the dispositional modality grammateme"),
- the aspect grammateme (see Section 5.6.4.4, "Values of the aspect grammateme"),
- the tense grammateme (see Section 5.6.4.5, "Values of the tense grammateme"),
- the resultative grammateme (see Section 5.6.4.6, "Values of the resultative grammateme"),
- the iterativeness grammateme (see Section 5.6.4.7, "Values of the iterativeness grammateme").


### 5.6.4.1. Values of the verbal modality grammateme

One of the basic values (ind, cdn or imp) of the verbmod grammateme (see Section 5.5.9, "The verbmod grammateme (verbal modality)") is assigned to all nodes representing finite verb forms.

The values of the grammateme usually correspond to the value of the morphological category of mood. For example:

Studenti přišli na schůzi včas. [verbmod=ind] (=The students came to the meeting in time)
Přišli včas? [verbmod=ind] (=Did they come in time?)
Přijd'te na schůzi včas! [verbmod=imp] (=Come to the meeting in time!)
My bychom přišli určitě včas. [verbmod=cdn] (=We would definitely come in time)
NB! As for nodes representing infinitives, participles or transgressives (gerunds), the value of the verbal modality grammateme is nil. For example:

Každý má povinnost poskytnout člověku první pomoc. [verbmod=nil] (=Everybody has the obligation to give first aid to the ones who need it)

Hlasitě nařikajic , odcházela. [verbmod=nil] (=Loudly crying, she was leaving)
!!! This is only a temporary solution.

### 5.6.4.2. Values of the deontic modality grammateme

The deontic modality grammateme (deontmod; see Section 5.5.10, "The deontmod grammateme (deontic modality)") gets one of the following values with all nodes representing finite verb forms, infinitives, participles or transgressives, i.e. with all semantic verbs: deb, hrt, vol, poss, perm, fac, decl.

The grammateme expresses whether the event is understood as possible, necessary etc.
The value of the grammateme follows from the modal verb:

- "muset" $\rightarrow$ deb.

Modal predicates consisting of the modal verb muset and a full verb get the deb value.
Examples:
Musime zaplatit fakturu včas. [deontmod=deb] (=We have to settle the invoice in time)
Ty musiš prijiit [deontmod=deb] (=You have to come)

- "mít" $\rightarrow$ hrt.

Nodes representing modal predicates consisting of the modal verb mit and a full verb get the hrt value.

Examples:
Petr ti měl podklady poslat už včera. [deontmod=hrt] (=Petr was supposed to send you the documents already yesterday)

- "chtít" or "hodlat" $\rightarrow$ vol.

Nodes representing modal predicates consisting of the modal verb chtit or hodlat and a full verb get the vol value.

Examples:
Chtěl na sebe upozornit. [deontmod=vol] (=He wanted to turn the attention to himself)
Chtic odejít , rozloučila se. [deontmod=vol] (=As she wanted to leave, she said good-bye)
Hodlá odjet na dovolenou. [deontmod=vol] (=She intends to go on holiday)

- "moct" or "dát se" $\rightarrow$ poss.

Nodes representing modal predicates consisting of moct or dát se (in its modal meaning) and a full verb get the poss value.

Examples:
Můžete odejít. [deontmod=poss] (=You can leave)
Moct tak odejít! [deontmod=poss] (=If I only could leave!)
To se dá zjistit [deontmod=poss] (=It is possible to find out)

- "smět" $\rightarrow$ perm.

Nodes representing modal predicates consisting of the modal verb smět and a full verb get the perm value.

Example:
Nesmiš kouřit. [deontmod=perm] (=You are not allowed to smoke)

- "dovést" or "umět" $\rightarrow$ fac.

Nodes representing modal predicates consisting of the modal verb dovést or umět and a full verb get the fac value.

Examples:
Dovede skvěle vyprávět pohádky. [deontmod=fac] (=He can tell fairy tales fabulously)
Umíse výborně přetvařovat [deontmod=fac] (=He can/is able to pretend very well)

- no modal verb $\rightarrow$ decl.

If no modal verb is present, the value of the deontic modality grammateme is decl.

```
Examples:
Přišel na schůze včas. [deontmod=decl] (=He came to the meetings in time)
Přijd' na schůzi včas! [deontmod=decl] (=Come to the meeting in time!)
Přicházet včas je samozřejmostí. [deontmod=decl] (=It is natural to come in time)
Přicházeje na schůzi. [deontmod=decl] (=Coming to the meeting...)
```

If a modal verb modifies two (or more) full verbs in coordination or apposition, both (all the) nodes representing the predicates get the same value of the deontic modality grammateme. Examples:

Mưžěš si to rozmyslet [deontmod=poss] a přijít [deontmod=poss] za námi. (=You can think it over and come.)

Apart from the above mentioned modal verbs which are usually not represented by a separate node and which directly influence the value of the deontic modality grammateme of the predicate, there are also modal verbs (elements) (e.g.: lze, dokázat (=it_is_possible, manage)) which are represented by a separate node and the deontmod gramamteme value of which is decl. The same holds for all the other modal verbs in those special cases in which they are represented by separate nodes.

For more on modal predicates, see Section 6.9.1.1, "Modal predicates".
!!! So far, the semantic distinctions caused by negating the modal verbs are not represented properly. For example, the node representing the verb form in the sentence: Nemusiśs tam chodit. (=You don't have to go there) gets - due to the presence of the modal verb muset - the deb value, just like in the sentence: Musiš tam jít. (=You have to go there); although in the first case the relevant meaning is rather that of possibility, usually captured by the poss value.

### 5.6.4.3. Values of the dispositional modality grammateme

One of the two basic values (disp0 or disp1) of the dispmod grammateme (see Section 5.5.11, "The dispmod grammateme (dispositional modality)") is assigned to all non-imperative finite forms of semantic verbs (i.e. to nodes the verbmod grammateme of which gets either ind or cdn value).

The displ value is assigned in cases when the agent's attitude towards the event is expressed (i.e. in cases involving dispositional modality). In Czech, this type of modality is expressed by a special type of construction - its surface form has usually the following form: the reflexive passive, the manner adverbial of the type dobře, lehce, špatné (=well, easily, not_very_well) and the dative agent, not necessarily present at the surface level. The modal (manner) adverbial may be omitted as well in exclamatory (expressive) clauses, since it can be inferred (e.g. Jemu se pracuje! (=apprx. For him it is so easy to work!)).

The value disp1 is assigned to nodes representing verbal predicates of the following type:
Tato studie se studentiom četla dobře. [di spmod=disp1] (=lit. This article REFL student.DAT read well; apprx. It was easy for the students to read the article)

Spalo se nám tu výborně. [di spmod=disp1] (=lit. Slept REFL us.DAT here excellently; apprx. We slept very well here)

Tato studie se čte dobře. [di spmod=disp1] (=lit. This study reads well)
Nám se tu spalo! [di spmod=disp1] (=lit. Us.DAT here slept!; apprx. We slept very well here)
Otherwise, the value of this grammateme is disp 0 .

NB! As for the nodes representing imperatives, infinitives or transgressives (gerunds), the value of the dispositional modality grammateme is nil.

### 5.6.4.4. Values of the aspect grammateme

One of the basic values (proc or cpl) of the aspect grammateme (see Section 5.5.12, "The aspect grammateme") is assigned to all finite forms, infinitives, participles and transgressives (i.e. to all semantic verbs).

The value of the grammateme usually corresponds to the value of the morphological category.
Imperfective verbs. Imperfective verbs, presenting the event as ongoing, get the proc value.
Examples:
Nejraději kupuje / nakupuje nábytek. [aspect=proc] (=He likes to buy furniture best)
Na schůzky s přáteli mě Pavel nikdy nebral. [aspect=proc] (=Pavel never took me to his get-togethers with friends)

Perfective verbs. Nodes representing verbs, presenting the event as completed/a whole, get the cpl value.

Examples:
Koupil / nakoupil už vše potřebné. [aspect=cpl] (=He has already bought everything we needed)
Na schůzku s práteli mě Pavel ještě nikdy nevzal. [aspect=cpl] (=Pavel has never taken me to a get-together with his friends)

Double-aspect verbs. There are also so called double-aspect verbs, i.e. verbs that are both perfective and imperfective. They are mostly loan verbs but not only; cf. jmenovat, obětovat, věnovat (=name, sacrifice, devote). For some of the double-aspect loan verbs, prefixed (i.e. perfective) forms have been formed too (e.g.: zorganizovat, vydezinfikovat, zkonstruovat (=organize, disinfect, construct)); however, it does not mean that the non-prefixed forms ceased to be double-aspect verbs.

The proc value is assigned:

- in those cases when the event is understood as ongoing/as a process.

For example:
Právě tato operace byla iv některých západních zemích blokována až do konce 80. let. [aspect=proc] (=It was this operation that was blocked until the end of the 80's even in some of the western countries)

- in those cases when the event is iterated.

For example:
Císaři tam po dosažení určitého věku dobrovolné abdikovali, vstupovali do mnišského stavu... [aspect=proc] (=The Emperors abdicated after reaching certain age, became monks...)

- in the cases when the event is not limited in its temporal duration.

For example:
$V$ případě asociace jde o sdružení firem v daném oboru, které chce garantovat serióznost vi̊či zákaznikům. [aspect=proc] (=It is an association, which wants to guarantee...)

The cpl value is assigned:

- in the cases when the event is understood as a once only event.

For example:
Celkově lze konstatovat, že vnějši podminky budou působit na českou ekonomiku mírně příznivéji ve srovnání s rokem 1993. [aspect=cpl] (=It is possible to say/state that...)

- in those cases when the result of the event is presented.

For example:
K 31. lednu 1995 registrovaly úřady práce v České republice celkem 75659 nových pracovních mist. [aspect=cpl] (=By January 31st 1995, the employment agencies registered 75659 new positions...)

In those cases when it is hard or impossible to choose one of the basic values of the grammateme, the nr value is assigned. For example:

Kniha je výborem z esejů, které autor publikoval v letech 1986-1991 v renomovaných periodikách. [aspect $=\mathrm{nr}$ ] (=The book is a collection of essays which the author published between 1986 and 1991 in renowned journals)

Blažek odmítl návrh strany na své vystoupení komentovat s tím, že je to věcí vedení strany. [aspect $=\mathrm{nr}]$ (=Blažek refuted to comment on the party's proposal...)

Podle předběžných informací by zájemci měli mít možnost investovat do 15 podniků. [aspect=nr] (=According to the preliminary information, the interested people should have the possibility to invest in 15 companies)

### 5.6.4.5. Values of the tense grammateme

One of the basic values (sim, ant or post) of the tense grammateme (see Section 5.5.13, "The tense grammateme") is assigned to nodes representing non-imperative finite verb forms or transgressives (gerunds).

The difference between the absolute and relative tense is not captured by the value of the tense grammateme - it follows from the position of the given node in the tree whether the tense is absolute or relative. Nodes representing a verb form referring to an event that takes place at the moment of utterance (absolute tense) or at the moment (time span) simultaneous with another event (relative tense) are assigned the sim value; nodes representing a verb form referring to an event that took place before the moment of utterance (absolute) or before another event (relative) are assigned the ant value; nodes representing a verb form referring to an event that is going take place after the moment of utterance (absolute) or after another event (relative) are assigned the post value.

The value of this grammateme is directly related to the value of the aspect grammateme: while imperfective verbs (aspect $=$ proc) can have any of the three values (the value of the grammatemes is usually identical to the value of the corresponding morphological category), perfective verbs (aspect $=\mathrm{cpl})$ can have only one of the two values: ant or post; the present form has the future meaning.

## Examples:

Piše dopis. [tense=sim] (=He is writting a letter)
Psal dopis. [tense=ant] (=He was writting a letter)
$\underline{\text { Bude psát dopis. [tense=post] (=He will write/be writting a letter) }}$
Napiše dopis. [tense=post] (=He will write/will have written a letter)
Napsal dopis. [tense=ant] (=He wrote a letter)
The difference between the present and past conditional, as well as between the present and past transgressive is captured by assigning the node one of the values: sim or ant. For example:

Rád by se díval na tu inscenaci. [tense=sim] (=He would like to watch the programme)
Byl by se rád dival na tu inscenaci, ale usnul. [tense=ant] (=He would have liked to watch the programme but he fell asleep)

Hlasitě nařikajíc, odcházela... [tense=sim] (=Crying loudly, she was leaving)
Hlasitě zanařikavši, odcházela... [tense=ant] (=After emitting a loud cry, she was leaving)
NB! Nodes representing imperatives, participles or infinitives are assigned the nil value.
!!! So far, no cases of the future use of present forms were recognized (e.g.: Zitra jedu do Brna. (=I am going to Brno tomorrow); the value of the tense grammateme is given by the form of the verb. The same applies to the cases when the present verb form is used for talking about past (historical present); the verb is assigned the sim value of the grammateme.

### 5.6.4.6. Values of the resultative grammateme

One of the basic values (res 0 or res1) of the resultative grammateme (see Section 5.5.14, "The resultative grammateme (resultative aspect)") is assigned to all finite forms, infinitives, participles and transgressives (i.e. to all semantic verbs).

The res 1 value is only assigned to nodes representing the so called possessive passive, i.e. a form consisting of the verb mít and a passive participle, e.g.: mél uvařeno (=lit. (he) had cooked).

In all the other cases, the value of the grammateme is res 0 .
Examples:
Uvařil [resultative=res0] a uklidil. [resultative=res0] (=He cooked (the dinner) and cleaned (the house))

Měl uvařeno [resultative=res1] a dokonce i uklidil. [resultative=res0] (=lit. (He) had cooked and even cleaned)

Má uvařeno [resultative=res1] a je i uklizeno. [resultative=res0] (=lit. (He) has cooked and is cleaned)
!!! There are also other means of expressing resultativeness, namely the periphrastic passive can have this interpretation (e.g.: bylo uvařeno (=lit. was cooked)); however, such cases have not been recognized so far.

### 5.6.4.7. Values of the iterativeness grammateme

One of the basic values (it0 or it1) of the iterativeness grammateme (see Section 5.5.15, "The iterativeness grammateme") is assigned to all finite verb forms, infinitives, participles and transgressives (i.e. to all semantic verbs).

The it1 value is assigned to nodes representing multiple/iterated events; so far, it seems to concern only the cases when a verb has one of the iterative suffixes: ívat / -ávat, -ávávat / -ivávat.

Nodes representing verbs in the sentences in which the iterative meaning is expressed by other means than by using one of the iterative suffixes (e.g. lexically) get the it 0 value.

Examples:
Chodíval $k$ nám často. [iterativeness=it1] (=He used to come to us quite often)
Chodí plavat pravidelně / každé pondělí. [iterativeness=it0] (=She goes swimming regularly / every morning)

Zaplaval si [iterativeness=it0] a odešel. [iterativeness=it0] (=He swam for some time and left)

Plaval dvě hodiny. [iterativeness=it0] (=He swam for two hours)
!!! This is only a temporary solution.

### 5.7. The sentmod attribute

There is also a specific attribute sentmod. It captures similar meanings as the grammatemes do but it is assigned to a node on the basis of its position in the tree, not on the basis of its values of the nodetype and sempos attributes.

The sentmod attribute contains the information regarding the sentential modality.
The sentmod attribute is relevant for the following nodes:

- root of a sentence (represented by a tectogrammatical tree),
- root of a subtree representing direct speech (see Section 8.3, "Direct speech"),
- root of a subtree representing a (syntactically independent) parenthesis, the effective roots of which are assigned the PAR functor (see Section 6.7, "Parenthesis").
!!! The sentmod attribute is assigned a value if the node is the root of a subtree; in the future, it will be necessary to do so for each effective root of a subtree.

The basic values of the sentmod attribute are to be found in Table 5.25, "Values of the sentmod attribute".

Table 5.25. Values of the sentmod attribute

| enunc | indicative mood |
| :--- | :--- |
| excl | exclamation |
| desid | optative (desiderative) mood |
| imper | imperative mood |
| inter | interrogative mood |

The sentmod attribute has the enunc value in indicative clauses, e.g.:
Petr nepřišel. [sentmod=enunc] (=Petr didn't come)
Škola. [sentmod=enunc] (=School)
Petr pracuje na zahradě a Hanka se učí doma. [sentmod=enunc] (=Petr is working in the garden and Hanka is learning at home)

The sentmod has the excl value in exclamatory clauses, e.g.:

Vyhráli jsme! [sentmod=excl] (=We won!)
Ó veliký dni her! [sentmod=excl] (=Oh, you big day of games!)
The sentmod attribute has the desid value in optative clauses, e.g.:
At'se vám dař̌!! [sentmod=desid] (=I wish you all the best; lit. OPT REFL you.DAT do_well)
Kéž by nepřišli! [sentmod=desid] (=I wish they didn't come; lit. OPT COND didn't_come.3pl)
Hodnĕ štěstị! [sentmod=desid] (=Good luck)
At' Petr pracuje na zahradě a Hanka at' se uči doma. [sentmod=desid] (=Let Petr work in the garden and Hanka learn at home)

The sentmod attribute has the imper value in imperative clauses, e.g.:
Přijd'te včas! [sentmod=imper] (=Come in time!)
Pozor! [sentmod=imper] (=Watch out!)
The sentmod attribute has the inter value in interrogative clauses, e.g.:
Zavolali jste už lékaře? [sentmod=inter] (=Have you called the doctor?)
Škola? [sentmod=inter] (=School?)
Půjdete ven nebo zůstanete tady? [sentmod=inter] (=Are you going out or are you staying here?)

## Chapter 6. Sentence representation structure

This chapter deals with the rules concerning the structure of a tectogrammatical tree, i.e. the way in which different types of syntactic constructions (parataxis, parenthesis, idiomatic expressions, ellipsis etc.) are represented by means of nodes and edges. The main features that determine the structure of a tectogrammatical tree are:

- dependency (see Section 6.1, "Dependency"),
- valency (see Section 6.2, "Valency"),
- deep structure word order (see Section 6.3, "Deep structure word order").


### 6.1. Dependency

The tectogrammatical level is based on the concept of dependency.
The basic idea of the dependency conception is that a dependent elementis determined by its governing element, which stands for the entire collocation (the governing part has the syntactic distribution identical to the entire combination of the governing and the dependent part). Dependency is reflected in morphological form of the dependent part (by agreement of morphological categories between the dependent and the governing part, or by a restriction on the case selection of the dependent part). In accordance with some new syntactic approaches the verb is considered the core of a sentence and the subject is dependent on the verb.

Representing dependency in a tectogrammatical tree. The dependency relation between two elements in a tectogrammatical tree is primarily indicated by an edge between two nodes that runs from the node representing the governing element (governing node) to the node representing its dependent element (dependent node).

PDT tectogrammatical trees differ from dependency trees in the strict sense, in which each edge represents a dependency relationship between two elements and in which each dependency is represented by an edge; namely, in the following:

- the second dependency with predicative complements (expressed by an attribute of type reference; see Section 6.1.1, "Dual dependency");
- existence of non-dependency edges (see Section 6.1.2, "Non-dependency edges"),
- cases of ambiguous dependency in which an edge between two nodes does not reflect exact dependency relations within a sentence (see Section 6.1.3, "Ambiguous dependency").

These specific cases show how complicated dependency relations within particular sentences are. The relations between individual elements in a sentence cannot always be interpreted as simple dependency relations.

### 6.1.1. Dual dependency

Dual dependency represents a specific case of dependency. The term dual dependency covers such cases in which a modification (both valency and non-valency) has a dual semantic dependency relation, i.e. it simultaneously modifies a noun and a verb (which can be nominalized). The dependency on a noun is often expressed also formally (by agreement in the grammatical categories).

We distinguish these two cases:

- dual dependency of a free modification - predicative complement (see Section 6.10, "Predicative complement (dual dependency)").

We represent the two dependency relations of an adjunct in the predicative complement position by an edge (dependency on the verb) and by an attribute of the type reference: compl .rf (dependency on the noun). For more on representation of the dual dependency of predicative complements see Section 6.10, "Predicative complement (dual dependency)".

- dual dependency of an argument.

Valency modifications (both prepositional and non-prepositional) with a dual dependency are represented as arguments of the governing verb and their functor is usually PAT or EFF (i.e. their dependency on the verb is represented by an edge); their dependency on the noun follows from the meaning of the verb, which is captured by its valency frame.

With modifications with a dual dependency expressed by a verb form, the grammatical coreference relations are also represented in the tree. For details see Section 9.2.3, "Coreference with verbal modifications that have dual dependency".

### 6.1.2. Non-dependency edges

Some edges of a tectogrammatical tree do not represent dependency. We establish such non-dependency edges in order to represent parataxis and some other specific syntactic relations in the tree.

A non-dependency edge is:

- the edge between the root node of a sentence and the technical root node of the tectogrammatical tree (nodetype=root).

It is an auxiliary (technical) edge without a linguistic interpretation.

- the edge between the effective root node of an independent clause and its mother node.

The functors for the effective root nodes of independent clauses (PRED, DENOM, PARTL, VOCAT, PAR) express non-dependency and they tell us of what type the clause is. This edge simply integrates the particular nodes (subtrees) into the tectogrammatical tree.

For more see Section 6.4, "Verbal and non-verbal clauses" and Section 7.1, "Functors for the effective roots of independent clauses".

- edges in paratactic structures:
a. the edge between the paratactic structure root node (nodetype=coap) and its mother node (nodetype $\neq c o a p$ ),
b. the edge between the paratactic structure root node and a direct element (member) of the paratactic structure,
c. the edge between the paratactic structure root node and the effective root node of a shared modifier.

As for modifications within a paratactic structure, their dependency is always represented by two edges at least. For example the dependency of a terminal element of a paratactic structure on its governing node is indicated in a simple, non-embedded paratactic structure by a combination of edges of type $a$ ) and b). In an embedded paratactic structure, the dependency of a terminal element of the paratactic structure on its governing node is indicated by a set of b) type edges and one a) type edge. The dependency of a shared modifier on the terminal members is indicated by a combination of edge type b) and c).

For more details on paratactic structures (including definitions of the terms) see Section 6.6.1, "Representing parataxis in a tectogrammatical tree".

- edges in list structures:
a. the edge between the root of the list structure (nodetype=list) and its mother node.
b. the edge between the root of the list structure and a list item (nodetype=fphr) or the effective root node of an identifying expression (functor=ID).
c. the edge between the root node of a list structure and the effective root node of a modifier of the list.

Edges between list structure nodes have various meanings depending on the type of the list structure. In list structures for foreign-language expressions, type b) edges only gather individual nodes in the list (they do not express dependency) while type a) edges express dependency of the entire list structure on its governing node. In identification structures (which are list structures, too), dependency is represented by both type a) and b) edges. Edge type a) expresses dependency of the entire identification structure, edge type b) expresses dependency of the effective root node of the identifying expression. Edge type c) represents (in both cases) dependency on all items of the list as a whole.

For more on list structures for foreign-language expressions see Section 8.9, "Foreign-language expressions".

For more on list structures for identifying expressions see Section 8.8.1.3, "Identification structure".

- the edge between an atomic node (nodet ype=atom) and its mother node.

Edges connecting atomic nodes integrate these nodes into the tree. Their meaning varies according to the functor of the particular atomic node. Edges connecting atomic nodes with the functor RHEM determine the position of the rhematizer within the deep structure and it defines its scope. Edges connecting atomic nodes the functors of which are ATT and MOD express potential dependency for more details see Section 6.11.1.3, "The semantic scope of modifications with the functors MOD and ATT". Edges above atomic nodes with the functor PREC integrate the sentence into the preceding context.

For more on functors of atomic nodes see Section 7.7, "Functors for rhematizers, sentence, linking and modal adverbial expressions". For more details on rhematizers see Section 10.6, "Rhematizers".

- the edge between a node with the functor DPHR, CPHR or CM and its mother node.

A node the functor of which is $D P H R, C P H R$ or CM expresses the fact that it constitutes a single lexical item together with its mother node. Therefore, the edge expresses that the two parts belong together - it does not signal dependency.

For more details see Section 6.9.3, "Complex predicates", Section 6.8, "Idioms (phrasemes)" and Section 8.16.1.2, "Conjunction modifiers".

### 6.1.3. Ambiguous dependency

The dependency relation of certain adjuncts (expressed by adverbs or prepositional phrases) is not always unambiguous: they do not necessarily modifiy only one element within the sentence but they can have a relation to several elements at the same time. Only one dependency relation can be represented by an edge. With adjuncts expressed by adverbs or prepositional phrases, it is often impossible to determine the appropriate dependency relation unambiguously. Only one (basic) dependency relation is represented, then, and no special attributes are established that would express other semantic relations.

For annotation rules of this type of modification see Section 6.11, "Ambiguous structures".

### 6.2. Valency

It is assumed that potentially every (semantic) verb, noun, adjective and adverb (i.e. every complex node) has subcategorization requirements, expressed by its valency frame. Valency modifications (in the broad sense of the word) include all kinds of elements (dependency relations) that can modify a particular lexical unit (or rather a lexical unit in a particular meaning).

In the present section - and in the whole manual in fact - the term valency is used in its stricter sense: the term valency modifications is reserved for the inner participants (arguments) and so called obligatory free modifications (obligatory adjuncts) (for the descriptions of individual types of modification, see Section 6.2.1.1, "Criteria for distinguishing between inner participants (arguments) and free modifications (adjuncts)"). The valency (of a particular lexical unit) is recorded in the valency frame (which is in the valency lexicon, see Section 6.2.2, "Valency frames and the way they are recorded in the valency lexicon").

The general approach to valency (in PDT) is described in Section 6.2.1, "The PDT approach to valency". The description of the valency lexicon and the way the valency of individual parts of speech is captured in it are to be found in the two following sections (Section 6.2.2, "Valency frames and the way they are recorded in the valency lexicon" and Section 6.2.3, "Valency of individual semantic parts of speech"). The last section (Section 6.2.4, "Representing valency in the tectogrammatical trees") is devoted to the way valency is represented in the tectogrammatical trees.

### 6.2.1. The PDT approach to valency

This section introduces the basics of the PDT approach to valency. The rules described here mainly apply to verbs. However, they are generally applicable to other parts of speech, too. The valency of individual parts of speech is discussed in Section 6.2.3, "Valency of individual semantic parts of speech".

### 6.2.1.1. Criteria for distinguishing between inner participants (arguments) and free modifications (adjuncts)

Any modification can be classified as either an inner participant (argument) or free modification (adjunct) - according to the type of dependency the are in w.r.t. their governing node.

To distinguish arguments from adjuncts, the following criteria are used:

- can the given type of modification modify a particular verb occurence more than once, or at most once?
- can the given type of modification modify any verb, or is there a (more or less) closed class of verbs that can be modified by it?

The rule is that:

- free modifications (adjuncts in the sequel) are such modifications that can modify any verb and, moreover, they can (in principle) modify a particular verb token more than once.
- inner participants (arguments in the sequel) are such modifications that can modify any given verb only once (except for the case of coordination) and they only modify a more or less closed class of verbs that can be listed.

The empirical observations made up to now lead us to the assumption that there are five different types of arguments: Actor (ACT), Patient (PAT), Addressee (ADDR), Origo (ORIG) and Effect (EFF). Other types of verbal modifications are considered to be adjuncts, corresponding to temporal, locational,
manner and other kinds of adverbials (for the list of the recognized functors and their definitions, see Chapter 7, Functors and subfunctors).

For every verb (meaning: in one of its possible meanings), it is possible to determine what its arguments are on the basis of the criteria above.

As for the other parts of speech (nouns, adjectives and adverbs), the situation is similar but there may be also specific issues in addition to the ones common for all parts of speech (e.g. there is a special nominal argument MAT). For details regarding the valency of nouns, adjectives and adverbs, see Section 6.2.3.2, "Valency of nouns",Section 6.2.3.3, "Valency of adjectives" andSection 6.2.3.4, "Valency of adverbs" respectively.

### 6.2.1.2. Criteria for distinguishing between obligatory and optional modifications

A given type of modification is either an argument, or an adjunct in all its occurences. In the relation to its governing word, any given modification is either obligatory (obligatorily present at the deep structure level), or optional (not necessarily present). The obligatory - optional distinction does not apply directly to the individual types of modifications; it rather applies to their relation to individual lexical units (their governing verbs/nouns/adjectives..).

Adjuncts, defined in Section 6.2.1.1, "Criteria for distinguishing between inner participants (arguments) and free modifications (adjuncts)" as such modifications that can modify any verb (word) and, furthermore, sometimes even more than once, are in some cases also obligatory. Adjuncts are potentially always present; any event proceeds in time, at a certain location, in a certain way/manner. For some verbs, adjuncts with "temporal", "locative" or "manner" meanings are, however, obligatory, necessarily present in the meaning of the verb (i.e. they are required by the semantics of the verb).

The dialogue test. For determing whether a given modification is obligatory or optional, the so called dialogue test is used.

The dialogue test helps us to determine which modifications of a given verb are obligatory and which are optional. It is used whenever a modification is not present at the surface level but when it can be hypothesized that it is in fact (semantically) obligatory. The dialogue test is based on the difference between questions asking about something that is supposed to be known to the speaker - because it follows from the meaning of the verb he/she has used, and questions about something that does not necessarilly follow from the meaning of the used verb. Answering a question about a semantically obligatory modification of a particular verb, the speaker - who has used the verb - cannot say: I don't know. Compare the following dialogues:

- determining whether an argument is obligatory:
a. - A: Když to viděl, koupil to. (=When he saw it he bought it.)
- B: Kdo? (=Who?)
- A: *Nevím. (=*I don't know.)
b. - A: Když to viděl, koupil to. (=When he saw it he bought it.)
- B: Komu? (=For whom?)
- A: Nevím. (=I don't know.)
c. - A: Když to viděl, koupil to. (=When he saw it he bought it.)
- B: Od koho? (=From whom?)
- A: Nevím. (=I don't know.)

The verb koupit (=buy) has (according to the criteria in Section 6.2.1.1, "Criteria for distinguishing between inner participants (arguments) and free modifications (adjuncts)") four arguments: Actor, Patient, Addressee and Origo. With the help of the dialogue test, it can be determined which of these arguments are obligatory and which are optional. In dialogues a), the speaker cannot answer the questions Kdo? (=Who?) by saying Nevim (=I don't know). It would make no sense if speaker's answer was Nevím ( $=I$ don't know). On the other hand, the speaker does not have to know answers to the questions Komu? (=For/to whom?) and Od koho? (=From whom?) in the dialogues b) and c). These modifications are contained in the meaning of the verb, but not necessarily; they are optional.

- determining whether an adjunct is obligatory:
a. - A: Moji přátelé přijeli. (=My friends have come.)
- B: Kam? (=Where to?)
- A: *Nevím. (=*I don't know.)
b. - A: Moji přátelé přijeli. (=My friends have come.)
- B: Odkud? Proč? (=Where from? Why?)
- A: Nevím. (=I don't know.)

For the verb přijet (=come), the modification answering the question Kam? (=Where to?) is obligatory, which can be seen from the impossibility to answer the question by saying Nevím ( $=I$ don't know). The speaker used the verb prijet (=come), so it would make no sense if the answer to the question about the goal was Nevim (=I don't know). A modification of this type is implied by the meaning of the verb - the speaker knows it and left it out only because he/she was sure the hearer knew it as well. On the other hand, the speaker does not need to know answers to the questions Odkud? (=Where from?), or Proč? (=Why?) in dialogue b).

The modification answering the question Kam? (=Where to?) is (according to the criteria in Section 6.2.1.1, "Criteria for distinguishing between inner participants (arguments) and free modifications (adjuncts)") an adjunct; it is, however, obligatory for the verb přijet.

### 6.2.1.3. Structure of a valency frame

By combining the criteria for distinguishing between arguments and adjuncts with the criteria for distinguishing between obligatory and optional modifications, we get the four possibilitites displayed in the following table:Table 6.1, "Structure of a valency frame".

Table 6.1. Structure of a valency frame

|  | Obligatory modifications | Optional modifications |
| :---: | :---: | :---: |
| Arguments | + | + |
| Adjuncts | + | - |

All arguments and those adjuncts that are obligatory for a given meaning of a given verb (noun/adjective/adverb) (cf. the pluses in the table Table 6.1, "Structure of a valency frame") are understood as valency modifications in the narrow sense and are recorded in the valency frame of the verb. Every verb has at least one valency frame - and often more, with one frame corresponding to one meaning of the verb.

As for idiomatic expressions, the valency frame of the governing verb contains, apart from its arguments and adjuncts, also the dependent parts of the idiomatic expressions in question (with the functors CPHR or DPHR; see Section 6.2.2.2, "Valency frames of idiomatic expressions (phrasemes) and complex predicates").

A valency frame can also be empty - for the discussion see Section 6.2.2, "Valency frames and the way they are recorded in the valency lexicon".

Valency frames are recorded in the valency lexicon. For a discussion concerning the valency lexicon and the way valency frames are recorded in it, see Section 6.2.2, "Valency frames and the way they are recorded in the valency lexicon".

### 6.2.1.4. Criteria for determining the type of argument (the principle of shifting)

When determining the type of the argument in question, two kinds of criteria are used: syntactic (when only the Actor (ACT) and Patient (PAT) are involved) and semantic (when more than two arguments are involved). For a discussion of the semantics of the individual arguments (and their definitions), see Section 7.2, "Argument functors"

In principle, it holds that:

- the first argument is always the Actor, the second one is the Patient. From this, it follows that:
- if a verb has only one argument, it is the Actor (ACT) regardless of its exact semantic relation to the verb.
- if a verb has two arguments, they are the Actor (ACT) and the Patient (PAT).

Determining the first and the second argument. When determining which argument is the first one (i.e. the Actor), the basic rule is that the Actor occupies the subject position, i.e. the structural nominative position. Only if one of the arguments is in the dative case and the other one in the nominative case, the semantics of the arguments comes into account. If the argument in dative refers to the Experiencer (or Agent), we consider the argument the Actor and the argument in nominative the Patient.

Cf:

- Kniha.PAT se mi.ACT libila. (=I liked the book; lit. book.NOM REFL to_me.DAT seemed_nice)

The dative argument refers to the Experiencer. It corresponds to the Actor in the relevant valency frame; the nominative argument is the Patient.

The valency frame for the given meaning of the verb libit se (=seem_nice/be_to_one's_taste):
ACT(.3) PAT(.1;že[.v];.f;.c)

- Naše výrobky.ACT se vyrovnají cizím výrobkům. PAT (=Our products are as good as the products from other countries; lit. Our products.NOM REFL keep_pace_with/are_a_match_for foreign products.DAT)

The argument in the dative case does not refer to an Experiencer/Agent; the Actor functor is assigned to the argument in the nominative and the dative argument is the Patient.

The valency frame for the given meaning of the verb vyrovnat se (=keep_pace_with/be_a_match_fo):
$\operatorname{ACT}(.1) \operatorname{PAT}(.3)$

- if a verb has more than two arguments, semantic criteria come into play. Determining whether the third (fourth, fifth) argument is the Addressee, Effect or Origo depends on the semantics of the argument in question.

The arguments are, in principle, defined (also) semantically (cf. Section 7.2, "Argument functors"); however, when considering the first two arguments, the syntactic criteria are decisive. As a consequence of this, the so called argument shifting takes place. The argument shifting means that:

- if a verb has no argument in its valency frame that bears the cognitive role of an Agent (or another role typical for the first participant - Actor), its position is taken up by the Patient (i.e. what would be assigned the Patient functor under usual circumstances). Cf.:
- Kniha.АСт vyšla. (=The book was published/came out.)

The Patient has taken up the position of the Actor (=it has undergone shifting).
The valency frame for the given meaning of the verb vyjit (=come_out):

## ACT(.1)

- if a verb subcategorizing for two arguments has no argument that bears the cognitive role of a Patient, another argument takes up its position (i.e. is assigned the Patient functor). The following rule applies:
- if a verb has a potential Addressee/Origo and a potential Effect but has no Patient-like argument, then the Patient position is taken up by the Effect-like argument. The Addressee and/or Origolike arguments do not undergo any shifting. Cf.:
- Petr.ACT vykopal jámu. PAT (=Petr has dug a hole.)

The Patient position is taken up by the Effect-like argument (i.e. the Effect has undergone shifting).

The valency frame for the given meaning of the verb vykopat (=dig (up/out)):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4)$

- Jan.ACT vyspěl z jinocha.ORIG v muže.PAT (=Jan grew up into a man - he is not a child any more; lit. Jan grew_up from adolescent into man)

The Patient position is taken up by the Effect-like argument (i.e. the Effect has undergone shifting), the Origo-like argument has not undergone any shifting.

The valency frame for the given meaning of the verb vyspět (=grow up):

$$
\operatorname{ACT}(.1) \operatorname{PAT}(\mathrm{v}+4) ? \mathrm{ORIG}(\mathrm{z}+2)
$$

- if a verb has no Effect-like argument, the Patient position is taken up by the cognitive Addressee/Origo (i.e. they shift to the position of the Patient). Cf.:
- Učitel.ACT vyvolal žáka.PAT (=The teacher asked a pupil to answer a question; lit. Teacher called_upon pupil.)

The Patient position is taken up by the Addressee-like argument (i.e. the Addressee has undergone shifting).

The valency frame for the given meaning of the verb vyvolat (=call upon/examine):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4)$

- $\underline{Z}$ banálniho nachlazení.PAT se vyvinulo závažné onemocnění.АСT (=A slight/banal cold developed into a serious illness; lit. From banal cold REFL developed serious illness.)

The Patient position is taken up by the Origo-like argument (i.e. the Origo has undergone shifting).

The valency frame for the given meaning of the verb vyvinout se (=develop):

$$
\operatorname{ACT}(.1) \operatorname{PAT}(\mathrm{z}+2)
$$

The argument shifting can be represented schematically as follows:

- ACT $\leftarrow \mathrm{PAT} \leftarrow E F F /$ ADDR $/$ ORIG.

NB! The shifting only concerns arguments. Adjuncts do not shift to argument positions. An adjunct that is obligatory for a given verb (according to the criteria in Section 6.2.1.1, "Criteria for distinguishing between inner participants (arguments) and free modifications (adjuncts)") is always assigned an adjunctltype functor. Cf.:

- Hučí v kominé.LOC (=lit. Whistles in chimney.)

The verb hučet (=whistle) has no argument. The obligatory adjunct with the LOC functor does not shift (i.e. does not take up the position of the Actor).

The valency frame for the given meaning of the verb hučet (=whistle):
LOC(*).

- Petr.ACT přijel do Prahy.DIR3 (=lit. Petr came to Praha.)

The verb prijet has one argument, i.e. the Actor. The obligatory adjunct with the DIR3 functor does not shift (i.e. does not take up the position of the Patient).

The valency frame for the given meaning of the verb přijet (=come/arrive):
$\operatorname{ACT}(.1) \operatorname{DIR} 3(*)$.
The argument shifting applies to the valency frames of all verbs, with the exception of complex predicates, for the relevant discussion see Section 6.9.3.3, "Valency frames of complex predicates".

### 6.2.1.5. Relationship between the verb meanings and valency frames

Every verb meaning is assigned a valency frame. Verbs usually have more than one meaning; each is assigned a separate valency frame. Every verb has as many valency frames as it has meanings. However, in the PDT valency lexicon, only those verbs, nouns, adjectives and adverbs - more precisely those of their meanings - are included which occured in the annotated data (for a discussion, see Section 6.2.2.4, "Valency lexicon").

The one meaning - one valency frame principle is violated in the cases of so called competing valency modifications, described in Section 6.2.3.1.5, "Valency modifications competing for the same position (while the meaning of the verb is preserved)". These are the cases when a single valency position can be taken up by more different modifications with no (or almost no) change in meaning. The potential competition arises either between an argument and adjunct or between different types of adjuncts. There are two strategies how to deal with cases of competing modifications; one of them is to constitute as many valency frames as there are competing modifications. Then, two or more valency frames correspond to a single verb meaning.

Two different meanings of a verb can have the same valency frame, i.e. identical with respect to the number and type of modifications, as well as their surface form. Compare the following examples:

- three instances of an identical valency frame of the verb chytit (=catch):
- ACT(.1) PAT(.4)
několik mičư (=several balls)
- ACT(.1) PAT(.4)
chytili pachatele (=they caught the culprit)
- $\operatorname{ACT}(.1) \operatorname{PAT}(.4)$
chytili posledni vlak (=they caught the last train)
- two instances of an identical valency frame for two different meanings of the verb chovat (=raise/breed vs. nurse/cradle):
- $\operatorname{ACT}(.1) \operatorname{PAT}(.4)$
chová prasata na farmě.LOC (=he/she raises pigs on his/her farm)
- $\operatorname{ACT}(.1) \operatorname{PAT}(.4)$
chová dítě v náruči.LOC (=he/she is cradling a child in his/her arms)
Different verb meanings are delimited in a rather intuitive way; thus, it can happen that a case understood in PDT as a verb having one meaning/one valency frame is analyzed differently by someone else (who is making a finer-grained distinction) - i.e. as having more meanings/more valency frames.


### 6.2.2. Valency frames and the way they are recorded in the valency lexicon

A detailed description of a valency frame record is to be found in Section 11.5, "The notation of valency frames and its semantics"; in the present section, only the basic information (as to the form of the record) is given.

A valency frame record is a sequence of records of individual valency modifications (types of dependents), separated by spaces.

Competing valency modification (see Section 6.2.3.1.5.1, "Competing manner adjuncts") are separated by the | mark.

As for idiomatic expressions and complex predicates, the valency frames of their governing verbs contain, apart from their arguments and obligatory adjuncts, also the dependent parts of the idiomatic expressions or complex predicates in question (with the functors CPHR or DPHR; see Section 6.2.2.2, "Valency frames of idiomatic expressions (phrasemes) and complex predicates").

The lexical meaning linked to a given valency frame is illustrated by examples; often, synonyms and antonyms are provided, too, or aspectual counterparts, if possible.

In the example part of a valency frame record, one can also occasionally find so called typical adjuncts, i.e. those modifications that are not required (they are not semantically obligatory) but which are characteristic for a given verb (noun, adjective) in the given meaning.

A valency frame lists the valency modifications in the following order: $A C T, ~ C P H R, ~ D P H R, ~ P A T, ~ A D D R, ~$ ORIG, EFF, BEN, LOC, DIR1, DIR2, DIR3, TWHEN, TFRWH, TTILL, TOWH, TSIN, TFHL, MANN, MEANS, ACMP, EXT, INTT, MAT, APP, CRIT, REG.

A valency modification record contains information regarding the functor and surface form of the given modification (see Section 6.2.2.1, "Specification of the surface form of valency modifications").

The question mark preceding the functor specification indicates optionality; if the question mark is not present, the modification is obligatory.

Examples of valency frame records:

- the valency frame record for one of the meanings of the verb zmenšovat (=reduce/make smaller):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) ? O R I G(z+2) ? E F F(n a+4)$
zmenšovat nájem z 8 na 6 tisic (=to reduce the rent from 8 to 6 thousand)
z. objem odpadu o přijatelné procento.DIFF (=to reduce the waste volume by a reasonable amount/per cent)
- the valency frame record for one of the meanings of the verb koupit (=buy):

АСТ(.1) $\operatorname{PAT}(.4)$ ? $\operatorname{ADDR}(.3 ;$ pro+4) ?ORIG(od+2)
koupil sestře (pro sestru) od Vietnamců tričko (=he bought his sister a $t$-shirt/he bought a t-shirt for his sister from the Vietnamese)
z poslednich peněz.MEANS (=using his last money; lit. from last money)
za padesát korun.EXT k. rodičưm dárek (=he bought his parents a present for fifty crowns)
za dobré chování.CAUS $k$. synovi kolo (=he bought his son a bike (as a reward) for good behavior)
za koruny.MEANS mu k. knihu (=he bought him books using (lit. for) crowns)
za bratra.SUBS $k$. tatinkovi dárek (=he bought his father a present instead of/in place of his brother)
k. bratrovi.ADDR pro sestru.BEN dárek (= lit. (he) bought (his) brother for (his) sister (a) present; meaning: he did it for his brother's sake but the present is going to his sister)
k. si.ADDR kolo (=he bought himself a bike)

- the valency frame record for one of the meanings of the verb vypadat (=look (like)):
$\operatorname{ACT}(.1) \operatorname{MANN}(*)|\operatorname{CRIT}(*)| \operatorname{ACMP}\left({ }^{*}\right) \mid \operatorname{CPR}(*)$
vypadat podezřele (=look suspicious)
byli jsme nervózní a naše hra vypadala podle toho.CRIT (=we were nervous and you could see it in the way we played; lit. our play looked according to it)
v. otcovsky.CPR (=look fatherly)
v. akademicky.CPR (=look academic)
v. podle poslední módy.CRIT (=look trendy; lit. according to the latest fashion)

Empty valency frames. Valency frames may also be empty, i.e. they may contain no valency positions (valency modifications in the narrow sense). Such a valency frame is specified as EMPTY.

EMPTY is used:

- for distinguishing between different meanings: some words have different meanings - in some of them they cannot be modified by any arguments or adjuncts, which is expressed by assigning them the frame EMPTY.
- for the purpose of being able to check for errors in the valency lexicon as well as in the data: the lexical units included in the valency lexicon (according to the criteria in Section 6.2.2.4, "Valency lexicon") have all valency frames. If they cannot be modified by any arguments or obligatory adjuncts, they are assigned the EMPTY frame.


### 6.2.2.1. Specification of the surface form of valency modifications

The surface form of a valency modification is the form in which the given modification is represented on the analytical level (i.e. on the level (lower than the tectogrammatical one) where all words contained in the surface form of a sentence are present). The surface form specification contains the following information:

- the syntactic dependency of a given modification;
- the requirements as to the part_of_speech characteristics and morphemics of the given modification.

Sometimes, it is necessary to specify the lemma of a preposition, for example.
In PDT, in contrast to the original system of valency frame representation (known from the literature on valency), an enhanced encoding system is used, which enables a uniform treatment of simple cases (like capturing the case requirements independently on the part-of-speech membership of the modification and other properties), as well as more complex cases (like idiomatic expressions; see Section 6.2.2.2, "Valency frames of idiomatic expressions (phrasemes) and complex predicates").

Dependency specification. To indicate the dependency, square brackets ( [ ] ) are used; sister nodes are separated by a comma (, ). The notation is, then:

- governing-node[dependent-node1,dependent-node2].

Specification of the part-of-speech membership and morphemic properties. The requirements as to the part of speech and morphemics of individual nodes are encoded in an abbreviated form (using one symbol for each class), introduced after a period or colon (the difference between a period and colon - as a means of separating the lemma and the morphological information - is discussed in Section 11.5, "The notation of valency frames and its semantics"), in the following order: part of speech, gender, number, case, degree. 4 means that the governing verb requires a modification in the accusative case, P6 refers to 'locative plural'. If a surface-level category is not specified, it means that the given valency modification may get any value of the category.

Examples of surface-form encoding:

- nominative: . 1
- accusative: . 4
- adjective in instrumental: .a7
- possessive pronoun or adjective: .u
- numeral: .m
- pronoun: .p
- infinitive: .f
- adverb: .d
- interjection: .i
- subordinate clause, with any kind of conjunction: $\mathrm{j}[. \mathrm{v}]$
- (asyndetic) content clause (a subordinate clause beginning with a relative pronoun/adverb): .c
- direct speech: .s
- feminine: .F
- singular: .S

In some cases, surface-form specifications include also the information regarding the analytical forms (lemmas) of dependent (analytical) nodes, which are part of the surface form of a modification in question; these are prepositions, subordinating conjunctions and also dependent parts of idiomatic expressions (see Section 6.2.2.2, "Valency frames of idiomatic expressions (phrasemes) and complex predicates"). For example, the requirement that a modification have a form of a subordinate clause with the conjunction $\check{z} e$ is encoded like this: že[.v].

For the sake of simplicity, when specifying what kind of prepositional phrase is required by a given verb, an abbreviated form is used (for the list, see Section 11.5.5, "Abbreviated forms of realization records"). For example, $n a+4$ is short for: na-1[.4].

Cf. other cases of surface-form specifications:

- preposition $o$ plus a noun in locative: $\mathrm{o}+6$
- preposition bez plus a noun in genitive: bez +2
- complex preposition na rozdil od plus a noun in genitive: od[na,rozdíl,.2]
- a subordinate clause with the conjunction aby: aby[.v]

Surface-form specification contains all surface-form variants of a given modification found in the analyzed data, stylistic variants included. What is not included in the information on the surface form of a modification are the changes in form that result from productive processes (syntactic transformations, e.g. passivization, reciprocity); for a detailed discussion see Section 6.2.2.3, "Productive changes in the surface form (not specified in the valency frames)".

A surface form of an obligatory adjunct is usually not specified, which means that all usual forms can be used. This is indicated by the star symbol ( * ), which is used instead of the explicit specification of a surface form. With arguments, the surface forms are always specified.

### 6.2.2.2. Valency frames of idiomatic expressions (phrasemes) and complex predicates

Idiomatic expressions (see Section 6.8, "Idioms (phrasemes)") and complex predicates (see Section 6.9.3, "Complex predicates") represent more complex cases; their dependent parts are included in the valency frames of the relevant head verbs, among other valency modifications (their functor is CPHR or DPHR).

Valency frames of idiomatic expressions. Specifying the surface forms may get rather complicated with idiomatic expression. When specifying the surface form of the dependent part of an idiomatic expression, it is necessary to capture the following facts: how many parts (words) the dependent part has, what are their morphological categories and often also the precise lexical content of these parts. There is a convention adopted for representing these requirements.

Examples:

- the valency frame entry for the idiom jít prikladem (=be an example to $s b$ ):

ACT(.1) DPHR(příklad.S7)
šla přikladem (=she was an example to sb)
BEN šla jí přikladem (=she was an example to her)
MEANS svým chováním (=with her behavior)

- the valency frame for the idiom: lapat po dechu (=gasp for breath):

ACT(.1) DPHR(po-1[dech.S6])
lapat po dechu (=gasp for breath)

- the valency frame for the idiom běhá mráz po zádech (=approx.: give sb the creeps, the experiencer is in the dative, the source is a PP):

ACT(.3) DPHR(mráz.S1,po-1[záda:P6])
mráz mi běhal po zádech (=it gave me the creeps)
Valency frames of complex predicates. All complex predicates (with the CPHR functor) that have the same verb in their verbal part and the nominal part of which may be formed by various synonyms and antonyms are assigned the same valency frame. The surface form of the nominal part of a complex predicate is specified as follows: a list of possible synonyms and antonyms in curly brackets ( \{ \} ) is followed by the list of possible morphemic forms. The list of the synonyms and antonyms (their lemmas) ends with three dots, which indicates that the list is not exhaustive; it only contains the cases collected so far. The rule of argument shifting does not apply here (see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)").

Valency frames of complex predicates are discussed in more detail in Section 6.9.3.3, "Valency frames of complex predicates".

### 6.2.2.3. Productive changes in the surface form (not specified in the valency frames)

Surface-form specifications contain all variants found in the analyzed data, with certain exceptions, though. These exceptions are cases when the change (shift) in form is caused by a productive process.

The cases when a surface-form variant is not recorded in the valency lexicon include:

## - passivization.

A valency frame only specifies those surface forms that occur in active sentences. When a verb is used in its passive form, the surface forms of some of its modifications (these are usually the Actor and Patient) change in a predictable way. These surface forms are not included in the valency frames.

Example:

- Stavebni firma.ACT postavila dům.PAT (=The building company built a house.)

Passive: Dỉm. PAT byl postaven stavební firmou.ACT (=The house.NOM was built by a building company.INSTR)

The nominative case the Patient gets as a result of passivization is not included in the surface form variants of the argument. Similarly, the instrumental case the Actor gets is not among the possible surface forms of the argument.

The valency frame of the verb postavit (=build):
ACT(.1) PAT(.4) ?ORIG(z+2)

- Stavební firma.ACT staví diom.PAT (=The building company is building a house.)

Passive: Di̊m.PAT se staví. (=The house is being built; lit. House REFL builds)
The nominative case the Patient gets as a result of passivization is not included in the surface form variants of the argument. The presence of the reflexive $s e$ is not indicated (as a possibility) in the valency frame either.

The valency frame of the verb stavět (=build.IMPF):
ACT(.1) PAT(.4) ?ORIG(z+2)

- resultative constructions.

The surface form variants that are the result of a verb occuring in a resultative construction (resultative=res1; see Section 5.5.14, "The resultative grammateme (resultative aspect)"), are not indicated in the valency frame of the verb.

## Example:

- Otec.ACT pronajal auto sousedovi.ADDR (=Father rented out a car to a neighbour.)

Resultative: Soused.ADDR má auto pronajato od otce/otcem.ACT (=lit. Neighbour.NOM has car rented from/by Father.)

The nominative case the Addressee gets as a result of the verb being in the resultative aspect is not included in the surface form variants of the argument. Similarly, the instrumental case the Actor gets (or the PP form od +2 ) is not among the possible surface forms of the argument.

The valency frame of the verb pronajmout (=rent out):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{ADDR}(.3)$

## - dispositional modality.

The surface form variants that are the result of a verb occuring in a construction with the dispositional modality meaning (dispmod=disp1; see Section 5.5.11, "The dispmod grammateme (dispositional modality)"), are not indicated in valency frame of the verb.

## Example:

- Žáci.ACT počítají přiklady. PAT (=The pupils are doing exercises.)

Dispositional modality construction: Př̌iklady. PAT se žákům.ACT počítají dobře.MANN (=lit. Examples.NOM REFL pupils.DAT count/do well.)

The nominative case the Patient gets as a result of being in a construction with the dispositional modality meaning is not included in the surface form variants of the argument. Similarly, the dative case the Actor gets is not among the possible surface forms of the argument. The presence of the reflexive se or the obligatory presence of a manner adverbial are not indicated in the valency frame either.

The valency frame of the verb počitat (=count):
ACT(.1) PAT(.4,že[.v],zda[.v],jestli[.v],.v[kolik])

- forms used for expressing subtle shifts in the meaning of arguments.

The basic form of an argument (e.g. the nominative for the Actor or accusative for the Patient) may be replaced by another form if a slightly different/more specific meaning (captured by a subfunctor) is to be expressed. These forms are used for a given meaning (subfunctor) regularly, therefore, they are not listed as possible forms of particular valency modifications (in individual valency frames).

These are the following forms:

- genitive (of negation, partitive g.).

Examples:

Ta vesnice má vodu. $\operatorname{PAT}(=$ The village has water.NOM $) \rightarrow$ Ta vesnice nemá vody.PAT $(=$ The village doesn't have (any) water.GEN)

Ubývá voda.ACT(=The water.NOM is disappearing.) $\rightarrow$ Ubývá vody.ACT(=The water.GEN is disappearing.)

Dodal sinl. $\mathrm{PAT}(=$ He added salt.ACC $) \rightarrow$ Dodal soli.. PAT $(=$ He added salt.GEN $)$
On má knihy.PAT(=He has books.ACC) $\rightarrow$ On má knih.PAT(=He has (lots of) books.GEN)

- $\quad$ po +6 .


## Examples:

Na každé větvi viselo jabličko.ACT (=lit. On each branch hung apple.NOM) $\rightarrow$ Na každé větvi viselo po jablićcku.ACT (=lit. On each branch hung PO apple.LOC; the distributive meaning made more explicit)

Dal každému ditéti jabličko. PAT (=lit. (He) gave each child apple.ACC) $\rightarrow$ Dal každému ditéti po jablíčku.PAT (=lit. (He) gave each child PO apple.LOC; the distributivity strengthened)

- $n a+4$


## Examples:

Sto.ACT mušek rozžehlo si světla v trávě. (=lit. Hundred.NOM (fire)flies lit REFL lights in grass.) $\rightarrow$ Na sta.ACT mušek rozžehlo si světla v trávě. (=lit. NA hundreds.ACC (fire)flies lit REFL lights in grass; quantity emphasized)

Roznesl stovky.PAT letáků.(=lit. (He) distributed hundreds.ACC leaflets.) $\rightarrow$ Roznesl na stovky.PAT letákư. (=lit. (He) distributed NA hundreds.ACC leaflets; quantity emphasized)

- okolo+2

Examples:
Deset knih.ACT leží na stole. (=lit. Ten books lie on table.) $\rightarrow$ Okolo deseti knih.ACT leží na stole. (=lit. About ten.GEN books lie on table; meaning: approximately)

Má deset knih.PAT(=lit. (He) has ten books.) $\rightarrow$ Má okolo deseti knih.PAT(=lit. (He) has about ten.GEN books; i.e. approximately)

- kolem +2

Examples:
Deset knih.ACT leží na stole. (=lit. Ten books lie on table.) $\rightarrow$ Kolem deseti knih.ACT leží na stole. (=lit. About ten.GEN books lie on table; i.e. approximately)

Má deset knih.PAT(=lit. (He) has ten books.) $\rightarrow$ Má kolem deseti knih.PAT(=lit. (He) has about ten.GEN books; i.e. approximately)

- $n a d+4$

Examples:

Deset knih. ACT leží na stole. (=lit. Ten books lie on table.) $\rightarrow$ Nad deset knih.ACT leží na stole. (=lit. Above ten.ACC books lie on table; meaning: more than)

Má deset knih.PAT(=lit. (He) has ten books.) $\rightarrow$ Má nad deset knih.PAT(=lit. (He) has above ten.ACC books; i.e. more than)

- pod+4

Examples:
Deset knih.ACT leží na stole. (=lit. Ten books lie on table.) $\rightarrow$ Pod deset knih.ACT leží na stole. (=lit. Under ten.ACC books lie on table; meaning: less than)

Má deset knih.PAT(=lit. (He) has ten books.) $\rightarrow$ Má pod deset knih.PAT(=lit. (He) has under ten.ACC books; i.e. less than)

Examples:

- přes+4

Examples:
Deset knih.АСт leží na stole. (=lit. Ten books lie on table.) $\rightarrow$ Přes deset knih.ACT leží na stole. (=lit. Over ten.ACC books lie on table; meaning: more than)

Má deset knih. PAT(=lit. (He) has ten books.) $\rightarrow$ Má přes deset knih.PAT(=lit. (He) has over ten.ACC books; i.e. more than)

- $k+3$

Examples:
Deset knih.ACT leží na stole. (=lit. Ten books lie on table.) $\rightarrow \underline{K}$ deseti knihám. ACT leži na stole. (=lit. Towards ten.DAT books lie on table; meaning: approximately)

Má deset knih. PAT(=lit. (He) has ten books.) $\rightarrow$ Má k deseti knihám.PAT(=lit. (He) has towards ten.DAT books; i.e. approximately)

- $d o+2$

Examples:
Deset knih.ACT leží na stole. (=lit. Ten books lie on table.) $\rightarrow$ Do deseti knih.ACT leží na stole. (=lit. Up_to ten.GEN books lie on table; i.e. maximum)

Má deset knih. $\operatorname{PAT}(=$ lit. (He) has ten books.) $\rightarrow$ Má do deseti knih. $\mathrm{PAT}(=$ lit. (He) has up_to ten. GEN books; i.e. maximum)

- od +2


## Examples:

Deset knih.ACT leží na stole. (=lit. Ten books lie on table.) $\rightarrow$ Od deseti knih.ACT leží na stole. (=lit. From ten.GEN books lie on table; i.e. minimum)

Má deset knih. $\mathrm{PAT}(=$ lit. (He) has ten books.) $\rightarrow$ Má od deseti knih. $\mathrm{PAT}(=l i t$. (He) has from ten.GEN books; i.e. minimum)

- $o d+2 ;(p \check{r e s}+4) ; d o+2$ (and other forms used for referring to intervals; see Section 8.16.2, "Operators")

Examples:
Deset knih.ACT leží na stole. (=lit. Ten books lie on table.) $\rightarrow$ Od pěti do deseti knih. ACT leží na stole. (=lit. From five.GEN to ten.GEN books lie on table; i.e. an interval is given)
!!! The presented meanings (partitivity, distributivity, approximation) are going to be represented by subfunctors (assigned to arguments) in a future version of PDT.

- reciprocity.

The fact that the sentence has a reciprocal meaning is signalled by the presence of se (mezi sebou, $k$ sobě (=lit. among themselves, to themselves; meaning: with/to/... each other)). These expressions are understood as a formal means of expressing reciprocity; they are not recorded in the valency frames (i.e. in their surface-form specification part). For more details see Section 6.2.4.2.1, "Valency frames and reciprocity".

A typical form used for expressing reciprocity is the form $m e z i+7$ (=between/among + instrumental). The form $m e z i+7$ is not included in the list of possible surface forms of an argument; it is a regular way of expressing reciprocity (see also Section 6.2.4.2.1, "Valency frames and reciprocity")

- numeral+noun constructions.

Certain numeral+noun constructions (see Section 8.10.1.1, "Numerals with the role of an attribute (RSTR)") are analyzed in such a way that the formally dependent noun (in genitive) is understood as the governing node of the construction whereas the formally governing numeral is taken to be the dependent node (i.e. on the tectogrammatical level). If a numeral+noun expression is in a valency position, the surface form of the governing node (of the modification in question) is genitive; however, this genitive form is not listed as a possible surface form of the given valency modification. It is the dependent node that has the appropriate surface form (i.e. listed in the valency frame for the given argument) here.

Example:

- Dívky.ACT koupily dětem čokoládu. PAT (=The girls bought the children chocolate.ACC)

Numeral+noun expressions: Dvě dívky.ACT koupily dětem hodně čokolády.PAT (=Two girls bought the children a lot of chocolate.GEN)

The genitive form is not included in the list of possible surface forms of the Patient (or Actor etc.).

The valency frame of the verb koupit (=buy):

$$
\operatorname{ACT}(.1) \operatorname{PAT}(.4) ? \operatorname{ADDR}(.3, \text { pro+4) ?ORIG(od+2) }
$$

## - coordination and apposition.

If a valency position is occupied by a coordination or apposition (see Section 6.6, "Parataxis") only the form of the first conjunct is recorded in the valency frame in some cases, which is relevant namely in the following cases:

- the second conjunct is a relative clause with the connective $\operatorname{coz}$ (see Section 6.5.4.1.1, "Constructions with the connectives "což", "přičemž", "načež", "pročež", "začež", "aniž"").

Example:

- Obdržel sto. PAT korun, což není.PAT málo. (=He received one hundred crowns, which is not little.)

The relative clause with the connective což is taken to be a Patient of the verb obdržet (=receive), which is in apposition with sto korun (=one hundred crowns). The list of possible surface-forms of the Patient only contains the form of the first conjunct.

The valency frame of the verb obdržet (=receive):

```
AСT(.1) PAT(.4) ?ORIG(od+2;z+2)
```

- appositions with the conjunction jako (see Section 6.6.2.1.3, "Apposition with the conjunction "jako"").

Example:

- Rád hraje skladby.PAT , jako je. PAT ta, co jsme právě slyšeli. (=He likes to play pieces like the one we've just heard.)

The clause with the conjunction jako is analyzed as a Patient of the verb hrát (=play), which is in apposition with skladby (=piece). The list of possible surface-forms of the Patient only contains the form of the first conjunct.

The valency frame of the verb hrát (=play):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4)$

- coordinations with "atd.", "apod." (see Section 6.6.2.1.1, "Coordination with "atd.", "apod.", "aj."").

Example:

- Koupili jsme papíry. PAT , tužky. PAT atd..PAT (=We bought paper, pencils etc.)

The abbreviation atd. (=etc.) is analyzed as a Patient of the verb koupit (=buy), which forms a coordination with papíry (=papers) and tužky (=pencils). The list of possible surfaceforms of the Patient only contains the form of the first (and the second) conjunct.

The valency frame of the verb koupit (=buy):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) ? \operatorname{ADDR}(.3$, pro+4) ?ORIG(od+2)
Transformational rules may be applied to the original valency frame - this is a guarantee (or rather, a way of testing) that the verb was assigned a correct valency frame.

### 6.2.2.4. Valency lexicon

Valency frames (assigned to individual meanings of words) are recorded in the valency lexicon. The valency lexicon contains valency frames of semantic verbs, nouns, adjectives and adverbs. Individual valency frames are clustered on the basis of what t-lemma they are related to (for a discussion of t lemmas see Chapter 4, Tectogrammatical lemma (t-lemma)).

The valency lexicon does not contain t-lemma substitutes (\#Colon, \#EmpVerb etc.) and t-lemmas of those nodes present at the surface level that are expressed by pronouns (it means that the valency lexicon does not contain t-lemmas like the following: který, jaký (=which, what) etc.). For a discussion of pronouns standing in place of lexical units with subcategorization requirements, see Section 6.2.4.3.4, "Pronouns in place of words with valency".

The valency lexicon was being constituted during the annotation; therefore, only those verbs, nouns, adjectives and adverbs - i.e. those of their meanings - are included which occured in the analyzed data.

For example, if a verb has two different valency frames in the lexicon, it means that these two meanings of the verb were found in the analyzed data; however, the given verb may have other meanings (i.e. other valency frames), too.
!!! The current version of the valency lexicon contains:

- valency frames of all semantic verbs (and verbal idioms) found in the analyzed data.
- valency frames of those semantic nouns which constitute the nominal part of complex predicates (i.e. those with the CPHR functor), found in the analyzed data.
- valency frames of those semantic nouns, adjectives and adverbs that have at least one argument as their daughter node, i.e. a node with one of the following functors: $\mathrm{ACT}, \mathrm{PAT}, \mathrm{ADDR}, \mathrm{EFF}$ or ORIG.
- valency frames for non-verbal idioms if the governing node is either a semantic adverb or a semantic noun.
- valency frames of non-verbal idioms if the governing node is a semantic verbal noun (a noun ending with -ni or $-t i$ ). For other nouns to be included in the valency lexicon, they need to meet certain conditions.

The valency lexicon only contains the t-lemmas of those nodes that have the value of the nodetype attribute specified as complex. The t-lemmas of traditional verbs, nouns, adjectives and adverbs the nodetype attribute of which has a value other than complex (according to the rules in Chapter 3, Node types) are not included in the valency lexicon (even if they have argument modifiers).

### 6.2.3. Valency of individual semantic parts of speech

In this section, the following semantic parts of speech are discussed - one by one - with respect to their valency:

- verbs (see Section 6.2.3.1, "Valency of verbs"),
- nouns (see Section 6.2.3.2, "Valency of nouns"),
- adjectives (see Section 6.2.3.3, "Valency of adjectives"),
- adverbs (see Section 6.2.3.4, "Valency of adverbs").

Especially the valency frame constitution is discussed; in some cases, also the rules for representing valency in the tectogrammatical trees are introduced. The complete set of rules for representing valency in tectogrammatical trees is to be found in Section 6.2.4, "Representing valency in the tectogrammatical trees".
!!! The valency frames of nouns, adjectives and adverbs included in the valency lexicon present, in fact, the first attempt to capture the valency of these parts of speech in the form of a lexicon. Therefore, the valency lexicon is to be taken as a tentative version (especially w.r.t. the valency of nouns, adjectives and adverbs), designed for the purposes of the PDT annotation. The form of certain valency frames is still a matter of debate; moreover, the lexicon is necessarily incomplete.

### 6.2.3.1. Valency of verbs

Verbal valency is the basic type of valency. The verb represents the core of a sentence. Which values (functors) are assigned to the nodes dependent on the governing verb follows from the syntactic properties of the verb, from its valency.

During the annotation (based on the theory of valency described in Section 6.2.1, "The PDT approach to valency"), certain new issues emerged, which led to adopting several partial and tentative solutions to the problems. These tentative solutions concerned especially the following issues:

- distinguishing abstract, literal and idiomatic meanings of verbs; these correspond to different valency frames (see Section 6.2.3.1.1, "Literal, abstract and idiomatic meanings of verbs"),
- delimitation of the individual meanings with certain verbs subcategorizing for accusative objects (see Section 6.2.3.1.2, "Delimitation of individual meanings with certain verbs subcategorizing for accusative objects"),
- finding the borderline between arguments and obligatory adjuncts and between obligatory and optional adjuncts (see Section 6.2.3.1.3, "Finding the borderline between arguments and obligatory adjuncts and between obligatory and optional adjuncts"),
- finding the borderline between the individual argument functors (see Section 6.2.3.1.4, "Finding the borderline between the individual argument functors"),
- the fact that there may be different valency modifications competing for the same position, while the meaning of the verb is preserved (see Section 6.2.3.1.5, "Valency modifications competing for the same position (while the meaning of the verb is preserved)"),
- valency modifications expressing that something is in a particular "state" (see Section 6.2.3.1.6, "Valency modifications expressing that something is in a particular "state""),
- valency frames of loan verbs (see Section 6.2.3.1.7, "Valency frames of loan verbs").

Valency of verbal idioms (phrasemes), complex predicates and the verb být (=be) are discussed in Section 6.8.2, "Verbal idioms", Section 6.9.3.3, "Valency frames of complex predicates" and Section 8.2, "Constructions with the verb "být" (=to_be)" respectively. For a discussion on the relation between valency and reciprocity, see Section 6.2.4.2.1, "Valency frames and reciprocity".

### 6.2.3.1.1. Literal, abstract and idiomatic meanings of verbs

When constituting valency frames, it is important to distinguish three very general kinds of meaning:

## - literal meanings.

Literal meanings of a verb are such meanings that follow directly from its lexical semantics; these are the basic, non-metaphorical meanings.

## - abstract meanings.

Abstract meanings of a verb are such meanings that are derived from its literal meanings; they are metaphorical meanings.

- idiomatic meanings.

Idiomatic meanings emerge when a verb is part of a complex lexical unit (a multi-word predicate; see Section 6.8, "Idioms (phrasemes)" and Section 6.9, "Multi-word predicates").

In the valency lexicon, these different meanings of verbs are distinguished by assigning them different valency frames (but not necessarily by assigning the relevant modifications different functors). Two or more identical frames (identical w.r.t. to their functors and surface forms) may be assigned to a verb, each representing a different meaning of the verb. Compare:

- the following valency frames of the verb hltat (=devour):
- ACT(.1) PAT(.4)
hltal polední jídlo (=he was devouring his lunch)
- ACT(.1) PAT(.4)
hltá miliardu za miliardou (=he/she/it is devouring billions one after another)

Abstract meanings are usually captured with the help of semantically less specific argument functors.
In those cases where the literal meaning is to be interpreted in terms of adjunct functors (especially the locative ones), the literal and abstract meanings are differentiated by assigning the relevant modifications different functors. Compare:

- the following valency frames of the verb ustoupit (=step back):
- ACT(.1) DIR1(*) ustup od něho, at' ho můžu praštit (=step back/aside so that I can give him a punch)
- ACT(.1) PAT(od+2) ustoupil od myšlenky (=he changed his mind; lit. stepped back from (the) idea)
- the valency frames of the verb vycházet (=come out):
- ACT(.1) DIR1(*)
rodiče vycházejí z domu, paprsky vycházejí ze středu (=the parents are leaving the house, the rays start at/spread from the centre)
- $\operatorname{ACT}(.1) \operatorname{PAT}(\mathrm{z}+2)$
vychází z předpokladu (=he supposes (lit. comes_out of assumption))
Abstract meanings of verbs are usually closely related to the meanings of multi-word predicates, especially those with the CPHR functor (see Section 6.9.3, "Complex predicates") and to the meanings of verbal idioms (with the DPHR functor; see Section 6.8.2, "Verbal idioms"). The basic difference between abstract and idiomatic meanings lies in the fact that in the case of idiomatic expressions the verb is just one part of a complex lexical unit which only has a meaning as a whole.

All these types of meanings - the literal, abstract and idiomatic one - may be found with the verbs prijít (=come) or mit (=have): Compare:

- the valency frames of the verb přijit (=come):
- the literal meaning:
$\operatorname{ACT}(.1) \operatorname{DIR} 3(*)$
přišel do Prahy (=he came to Praha)
- the abstract meaning:

ACT(.1) PAT(k+3)
přijít $k$ penězům, $k$ zápalu plic (=come into money; get/fall ill with pneumonia)

- as a complex predicate:
$\operatorname{ACT}(.1) \operatorname{CPHR}(\mathrm{s}-1[\{$ nápad, návrh,myšlenka,požadavek,ř̌ešení,...\}.7])
přišel s nápadem dopsat diplomku (=he came with the idea to finish his thesis)
- as a verbal idiom:

ACT(.1) DPHR(na-1[svět.S4])
přišel na svět v Americe (=he was born/came into the world in America)

- the valency frames for the verb mit (=have):
- the literal meaning:

АСТ(.1) $\operatorname{PAT}(.4)$ ? ORIG(od+2,z+2)
mit dìm od matky (=have house from one's mother); m. zahradu z dědictví (=inherit a garden; lit. have garden from inheritance); m. anginu (=have tonsillitis); m. to za pakatel.MEANS (=get sth for practically nothing); m. penize za úklid.CAUS (=get (lit. have) money for cleaning); $m$. penize, aby pomáhal.AIM (=have money in order to help); m. za vitězství.CAUS nový bod (=get a new point for the victory)

- the abstract meaning:

ACT(.1) PAT(.4)
mit pravdu; m. zvuk; m. ponětí, potuchu; m. aférku; m. dost práce; m. svátek; m. premiéru; m. vystoupeni; m. koncert; m. pohřeb (=lit. have truth (i.e. be right), h. sound (have a good reputation), h. idea (have a clue about sth), h. afair, h. enough work, h. name day, h. premiere, h. performance, h. concert, h. funeral)

- as a complex predicate:
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{$ zájem,...\}.4)
Má zájem o práci (=He/she is interested in the work).
- as a verbal idiom:

ACT(.1) DPHR(zelený.FS4)
nový letoun má zelenou, mládí m. zelenou (=the new aeroplane, the youth has the green light)
!!! The different types of verbal meanings are not delimited consistently throughout the whole valency lexicon; more work still needs to be done on the issue.

### 6.2.3.1.2. Delimitation of individual meanings with certain verbs subcategorizing for accusative objects

When constituting valency frames for certain verbs (potentially) taking accusative objects, the question arose whether to distinguish two different meanings, i.e. two defferent frames (one with the obligatory Patient, the other one lacking the Patient), or whether to propose only one valency frame (where the Patient would be optional).

The question arises especially:

- with verbs referring to "activities",
- with verbs referring to "the ability to pursue an activity".

Verbs referring to "activities". As for the verbs referring to "activities", there are three semantically differentiated subgroups:

- verbs referring to activities which may be thought of as external objects and which may also be expressed by a noun in accusative.

These verbs (tančit (=dance), cvičit (=exercise), trénovat (=train)) are each assigned a single valency frame where the Patient is optional. Cf.:

- the verb tančit (=dance):
- Celý večer tančili. (=They danced the whole evening)
$=$ i.e. (did) some dances
- Nejraději tanči valčík (=They prefer to dance the waltz).

The valency frame:
АСТ(.1) ? PAT(.4)

- the verb cvičit (=exercise):
- Jirka denné cvičí. (=Jirka exercises daily.)
$=$ i.e. (does) some exercises
- Budu cvičit nové cviky (=I'll do some new exercises).

The valency frame:
АСТ(.1) ? PAT(.4)

- verbs referring to activities which cannot be thought of as external objects very easily but which can be expressed by a noun in accusative in certain cases.

These verbs (plavat (=swim), běhat (=run), podnikat (=be in business)) are each assigned two valency frames: one valency frame for the generalized meaning (i.e. for referring to a type of activity; the only valency modification is the Actor) and one valency frame that is used for referring to individual events (the Actor and Patient). Cf.:

- the following meanings of the verb plavat (=swim):
- Anna plave závodně. (=Anna is a professional swimmer.)

The valency frame:
ACT(.1)

- Plaval dvacet bazénů denně / plaval motýlka (=lit. He swam twenty swimming pools a_day / butterfly)

The valency frame:
$\operatorname{ACT}(.1) \operatorname{PAT}(.4)$

- the meanings of the verb podnikat (=be in business):
- Kamarád už dlouho podniká. (=A friend has been in business for a long time.)

The valency frame:
АСТ(.1)

- Jirka podniká velké cesty (=lit. Jirka undertakes big journeys).

The valency frame:

```
ACT(.1) PAT(.4)
```

- The two aforementioned subgroups of verbs referring to "activities" are to be distinguished from the third subgroup of verbs which also refer to "activities" but which presuppose the existence of a certain object (instrument) necessary for pursuing the activity.

The Patient of these verbs (kousat (=bite), kouřit (=smoke), kojit (breast-feed)) is always obligatory. Cf.:

- Kouřil doutniky. (=He smoked cigars.)

The valency frame for this meaning of the verb kouřit (=smoke):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4)$
Verbs referring to "the ability to pursue an activity". A number of verbs (potentially) taking accusative objects can express the additional meaning of being able to do something. In this meaning of the verb, there is no Patient present in the deep structure and the meaning of the "ability to pursue an activity" is assigned a separate valency frame (with no Patient argument). Cf.:

- Pepiček už mluví. (=Pepiček already talks.)

The valency frame for the given meaning of the verb mluvit (=speak):
ACT(.1)

- Ale ještě nečte (=But he does not read yet).

The valency frame for the given meaning of the verb čist (=read):
АСТ(.1)

- Anička hovoří hezky německy (=Anička speaks German very well).

The valency frame for the given meaning of the verb hovořit (=speak):
АСТ(.1)

### 6.2.3.1.3. Finding the borderline between arguments and obligatory adjuncts and between obligatory and optional adjuncts

The basic rules for determining whether a given modification is an argument or an adjunct are in Section 6.2.1, "The PDT approach to valency". Since the semantics of the individual arguments is rather vague, it is often difficult to classify a modification as either an argument or adjunct.

The solutions adopted for some of the problematic cases are described in the present section:

- for a discussion on the general approach to the cases where the borderline between arguments and obligatory adjuncts is not clear, see Section 6.2.3.1.3.1, "The general approach to the cases where the borderline between arguments and obligatory adjuncts is unclear".
- the borderline between the Addressee argument and the adjunct with the BEN functor (see Section 6.2.3.1.3.2, "The borderline between the Addressee and Beneficiary"),
- the borderline between the Origo argument and the adjunct with the DIR1 functor (see Section 6.2.3.1.3.3, "The borderline between Origo and DIR1"),
- the borderline between the argument positions with the PAT/ORIG and EFF functors and the adjuncts with the DIR1 and DIR3 functors (see Section 6.2.3.1.3.4, "The borderline between the PAT, ORIG and EFF arguments and the DIR1 and DIR3 adjuncts"),
- the status of the modification carrying the meaning of "intention" after the verbs of "motion" (see Section 6.2.3.1.3.5, "Status of the modification expressing "intention" (INTT) after verbs of "motion""),


### 6.2.3.1.3.1. The general approach to the cases where the borderline between arguments and obligatory adjuncts is unclear

In a number of cases, it is not clear whether a given position is an argument or rather an obligatory adjunct (for the basic criteria for distinguishing the two, see Section 6.2.1, "The PDT approach to valency"). If the situation is not clear, it is necessary to consider which properties are characteristic for a given modification.

If the modification is an argument:

- its form is unambiguously and clearly determined by the verb,
- the modification is less specified as to its semantics.

If the modification is an obligatory adjunct:

- it is semantically obligatory (according to the dialogue test; see Section 6.2.1.2, "Criteria for distinguishing between obligatory and optional modifications"; an argument may be optional as well),
- the modification can take any form usual for the given type of adjunct,
- the modification is clearly specified as to its semantics; it meets the definition for the given functor.

Typical examples of obligatory adjuncts are manner and locative/directional adjuncts. Cf.:

- the valency frame for one of the meanings of the verb vyjit (=come out):

ACT(.1) DIR1(*)
vyšel z domova (=lit. came_out of home), paprsek v. ze středu (=lit. ray came_out from centre)

- the valency frame for one of the meanings of the verb nacházet se (=be situated):

ACT(.1) LOC(*)
nachází se v Praze (=is_situated in Praha)

- the valency frame for one of the meanings of the verb stát (=cost):

ACT(.1) ? $\operatorname{PAT}(.4) \operatorname{EXT}(*)$
vstupenka nás dnes stojí jen 50 Kč, s. ho to balik peněz (=the ticket costs us only 50 Kc today, it costs him a lot)

In the cases when it is not clear whether a given modification is an argument or an adjunct that has a restricted set of possible forms, the argument interpretation is to be preferred. Cf.:

- the valency frame for one of the meanings of the verb rídit se (=follow the directions):

АСТ(.1) PAT(.7;podle+2)
řidili se manuálem, podle manuálu (=follow the directions in the manual; lit. govern REFL manual.INSTR/according_to manual)

The second valency position is not an obligatory adjunct with the CRIT functor.

- the valency frame for one of the meanings of the verb mluvit (=speak):
$\operatorname{ACT}(.1) \operatorname{PAT}($ pro+4; proti+3; \{prospěch, neprospěch\}..S4/AuxP[v-1, .2], v-1[\{prospěch, neprospěch $\}. S 4[. u \#]])$
to mluví pro nás (=it speaks in our favour)

The second valency position is not an obligatory adjunct with the BEN functor.
The argument - obligatory adjunct distinction is also used for distinguishing abstract meanings from the literal ones (see Section 6.2.3.1.1, "Literal, abstract and idiomatic meanings of verbs").

### 6.2.3.1.3.2. The borderline between the Addressee and Beneficiary

It is hard to find the borderline between the following modification types which are very similar to each other w.r.t. their semantics: i.e. the borderline between the Addressee argument (ADDR) and the Beneficiary adjunct (BEN). These two modification types seem to compete for the same position when the verb takes accusative (and possibly also dative) objects. The Addressee may have the prototypical form of the Beneficiary, i.e. the prepositional phrase pro+4.

When determining what the right valency frame for a verb potentially taking a dative object is, both the semantics of the modification and its valency status (the question whether the given modification is a valency modification) are decisive. Essentially it holds that:

- the dative modifications that may be replaced by a possessive pronoun or adjective (modifying the accusative object) are non-valency modifications; they have the BEN functor. Cf.:
- Amputovali mu.BEN nohu (=lit. (They) amputated he.DAT leg).

> = jeho nohu (=his leg)

The valency frame for the given meaning of the verb amputovat (=amputate):
ACT(.1) PAT(.4)

- Barvil jí.BEN vlasy (=lit. (He) dyed she.DAT hair).
= její vlasy (=her hair)
The valency frame for the given meaning of the verb barvit (=dye):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4)$
- Libal Janě.BEN ruku (=lit. (He) kissed Jana.DAT hand).
= Janinu ruku (=Jana's hand)
The valency frame for the given meaning of the verb libat (=kiss):
АСТ(.1) PAT(.4)
- if the dative object cannot be replaced by a possessive pronoun or adjective without changing the meaning, the modification is a valency modification; it has the ADDR functor. The two types of dative modifications - the Beneficiary and the Addressee - may, then, distinguish different meanings of a single verb. Cf.:
- the different valency frames for the verb nosit (=carry/bring):
- Nosil mu/Janovi.BEN batoh (=lit. (He) carried he/Jan.DAT rucksack).
$=$ Nosil jeho/Janův batoh (=He carried his/Jan's rucksack).
The valency frame:
$\operatorname{ACT}(.1) \operatorname{PAT}(.4)$
nosit vodu (=bring water)
nosil mu.BEN (kamarádovy) batohy (=lit. (He) carried he.DAT (his friend's) rucksacks)
- Nosil mu/Janovi.ADDR batoh (=lit. (He) brought he/Jan.DAT rucksack).

The valency frame:

```
ACT(.1) PAT(.4) ?ADDR(.3)
nosit tatinkovi knihy (=bring books to one's father)
DIR3 do knihovny (=to the library)
nosil mu.ADDR (kamarádovi) batohy (=He brought him (his friend) rucksacks.)
```

- if a verb has, apart from the Actor, two more modifications (in the deep structure of the sentence), the dative modification is taken to be the Addressee, even though it may be replaced by a possessive pronoun or adjective (modifying the accusative modification). In such cases, the dative modification cannot be replaced by a possessive pronoun or adjective (without changing the meaning of the sentence) in every context.

Moreover, if the verb belongs to the class of verbs of "transfer" there is often competition between the modification with the ADDR functor and a directional adjunct (see Section 6.2.3.1.5.2, "Addressee vs. locative/directional adjuncts").

Cf.:

- the following meanings of the verb přinést (=bring):
- Přinesl jí.ADDR tašku na poštu. (=lit. (He) brought she.DAT bag to post office.)
= přinesl jí její tašku (=he brought her her bag)
The possibility of replacing jí tašku (=she.DAT bag) by její tašku (=her bag) is not necessarily available in all contexts.

The valency frame:
$\operatorname{ACT}(1) \operatorname{PAT}(4) \operatorname{ADDR}(.3$, pro+4)

- Přinesl krabici na poštu.DIR3 (=lit. (He) brought box to post office.)
= Přinesl (něčí) krabici poště. (=He brought somebody's box to the post office.)
The valency frame:
ACT(1) PAT(4) DIR3(*)
- the meanings of the verb odebrat (=take away):
- Odebral nám.ADDR tři body z tabulky.DIR1 (=lit. (He) took_away we.DAT three points from table.)

The possibility of replacing nám body (=we.DAT points) by naše body (=our points) is not necessarily available in all contexts.

The directional modification $z$ tabulky (=from the table) is taken to be an adjunct with the DIR1 functor.

The valency frame:
$\operatorname{ACT}(1) \operatorname{PAT}(4) \operatorname{ADDR}(.3)$

- Odebral jí.BEN krev ze žily.DIR1 (=lit. (He) took_away she.DAT blood from vein.)
$=$ Odebral její krev ze žily. (=lit. (He) took_away her blood from vein.)
The dative $j i ́(=s h e . D A T)$ is taken to be an adjunct with the BEN functor.
The valency frame:
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{DIR1}(*)$
- Zaplatil učitelce.ADDR (dceřiny) hodiny angličtiny. (=lit. (He) paid teacher.DAT (daughter's) lessons (of) English.)

Zaplatil dceři.BEN hodiny angličtiny. (=lit. (He) paid daughter.DAT lessons (of) English; meaning: He payed the English lessons for his daughter.)

The valency frame for the given meaning of the verb zaplatit (=pay):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) ? \operatorname{ADDR}(.3) ? \operatorname{EFF}(z a+4)$
It is necessary to consider each case carefully and decide which valency frame is more adequate for the given use (meaning) of the verb.

- the prototypical form of the Addressee is the dative case, the prototypical form of the Beneficiary is pro +4 . In some cases, both forms, the dative and pro +4 , are taken to be surface variants of the Addressee argument (i.e. both forms are specified as possible forms of the ADDR modification in the valency frame of the verb). Cf.:
- Přinášel úřednici.ADDR dopis (=lit. (He) brought clerk.DAT letter). = Přinášel pro úřednici.ADDR dopis (=lit. (He) brought for clerk letter).

The valency frame for the given meaning of the verb přinášet (=bring):
$\operatorname{ACT}$ (1) $\operatorname{PAT}(4) \operatorname{ADDR}(.3$, pro+4)

- Přivezl mamince.ADDR květiny. (=lit. (He) brought mum.DAT flowers.) = Přivezl pro maminku.ADDR květiny. (=lit. (He) brought for mum flowers.)

The valency frame for the given meaning of the verb přivézt (=bring (by car/bus etc.)):
$\operatorname{ACT}(1) \operatorname{PAT}(4) \operatorname{ADDR}(.3$, pro+4)
The analysis taking pro+4 to be a possible form of the Addressee is supported by the coordination facts; e.g.:
poskytoval mu bydlení a pro Alenu taky (=lit. (He) provided he.DAT accomodation and for Alena too)
zajistil nám pobyt a pro sebe taky (=lit. (He) secured we.DAT stay and for himself too)
zaručil nám i pro ně stejné podmínky (=lit. (He) guaranteed we.DAT as_well_as for them same conditions)

In those cases where both forms are present in the same sentence, the dative modification has the ADDR functor and the modification in the form pro+4 is analyzed as an adjunct with the BEN functor. Cf.:

- Přinesl jí.ADDR pro tatínka. BEN dopis. (=lit. (He) brought her for dad letter.)
!!! The modification with the BEN functor is never included in the valency frame. Establishing a clear boundary between the Addressee and Beneficiary is very problematic - it belongs to the issues left for future research.


### 6.2.3.1.3.3. The borderline between Origo and DIR1

Also the modifications with the ORIG and DIR1 functors may compete for the same position, namely if the verb subcategorizes for the Patient in accusative and may potentially have also a valency modification with the "locative/directional" meaning or the meaning of "origin" (the unifying meaning being that of source).

The issue here is that it is often hard to determine whether a given verb selects semantically for a modification with the "locative/directional" meaning (DIR1), or whether the required modification has the semantics of "origin" (ORIG). Both types of modification seem to fulfill the verb's requirements equally well.

Two surface forms are available for the given valency position: $z+2$ (which is typical for the modification with the DIR1 functor) and $o d+2$ (which is typical for the Origo argument). Verbs of this type can be divided into two groups, depending on which surface forms are allowed:

- if the "source" modification can take both the $z+2$ form and the $o d+2$ form, the two forms are considered semantically equivalent and the modification is assigned the ORIG functor. Cf.:
- Půjčil si od banky.ORIG peníze (=lit. (He) borrowed REFL from bank money). = Půjčil si $\underline{z}$ banky.ORIG penize. (=lit. (He) borrowed REFL from bank money.)

The valency frame for the given meaning of the verb půjčit si (=borrow):
АСТ(.1) $\operatorname{PAT}(.4)$ ? ORIG(od+2,z+2)

- Dostal anginu od kolegyně.ORIG (=lit. (He) got tonsillitis from colleague.) / Dostal infekci $\underline{z}$ vody.ORIG (=lit. (He) got infection from water.)

The valency frame for the given meaning of the verb dostat (=get):
АСТ(.1) PAT(.4) ?ORIG(od+2,z+2)

- Dostal od banky.ORIG přislib (=lit. (He) got from bank promise). = Dostal z banky.ORIG přislib. (=lit. (He) got from bank promise.)

The valency frame for the given meaning of the verb dostat (přislib) (=get a promise):
ACT(.1) CPHR(\{odškodnění, prostor, doporučení, informace, impuls, možnost, nabídka, návrh, odpověd', povolení, pokuta, přednost, příležitost, příslib, přístup, rada, slib, souhlas, ujištění, rozkaz, úkol, zákaz, zpráva,...\}.4) ?ORIG(od+2,z+2)

- Obdržel od úřadu.ORIG povolení (lit. (He) received from office permission). = Obdržel z úřadu.ORIG povolení. (lit. (He) received from office permission.)

The valency frame for the given meaning of the verb obdržet (=receive):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) ? O R I G(o d+2, z+2)$

- Čerpal od kolegy.ORIG informace (=lit. (He) drew from collegue information). I Čerpal z knihy.ORIG informace. (=lit. (He) drew from book information.)

The valency frame for the given meaning of the verb čerpat (=draw/pump):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) ? O R I G(o d+2, z+2)$

In those cases where there are both surface forms present at the same time, the modification of the form $o d+2$ is assigned the ORIG functor and the modification of the form $z+2$ is an adjunct, its functor being DIR1. Cf.:

- Půjčil si od tatínka.ORIG z účctu.DIR1 značnou sumu. (=lit. (He) borrowed from Dad from (his) account considerable sum.)
- if the only form of the "source" modification is (for a given verb) $z+2$, the "directional" interpretation is preferred over the "origin" interpretation and the modification is considered an obligatory adjunct with the DIR1 functor, or it is simply an (optional) adjunct and is not specified in the valency frame. Cf.:
- Odečitat dané hodnoty $\underline{z}$ celkové sumy.DIR1 (=lit. (To) subtract (the) given amounts from overall sum.)

The valency frame for the given meaning of the verb odečitat (=subtract):
ACT(.1) PAT(.4) DIR1(*)

- Zisky plynou z jejich účtů.DIR1 (=lit. Profits come from their accounts.)

The valency frame for the given meaning of the verb plynout (=flow/come):
ACT(.1)

- Dotoval výdaje ze státnich rezerv.DIR1 (=lit. (He) subsidized expenses from state reserves.)

The valency frame for the given meaning of the verb dotovat (=subsidize):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4)$
In certain cases, an even more complicated situation may occur. The "source" interpretation may be brought about by modifications of three different functors and these three interpretations (meanings of the verb) are assigned three different valency frames. Cf.:

- the meanings of the verb pocházet (=come/originate from):
- Zvuky pocházejí z různých nástrojů. PAT (=lit. Sounds come from different (musical) instruments.)

Zboží pochází od tuzemských výrobců. PAT (=lit. Goods come from domestic producers.)
The modification of the form $z+2$ or $o d+2$ has the PAT functor, which is a result of the argument shifting principle (see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)").

The valency frame:
ACT(.1) PAT(z+2,od+2)

- Matka pocházela z Moravy.DIR1 (=lit. Mother came from Moravia.)

The valency frame:
ACT(.1) DIR1(*)

- Kronika pochází ze 12. století.TFRWH (=lit. Chronicle comes/is from 12th century.)

The valency frame:
ACT(.1) TFRWH(*)

The functors ORIG and DIR1 are also used for distinguishing between abstract and literal verbal meanings (see also Section 6.2.3.1.1, "Literal, abstract and idiomatic meanings of verbs"), cf.:

- the meanings of the verb vymáčknout (=squeeze sth out of sb/extract):
- vymáčknout z obyvatel / od obyvatel.ORIG daně (=lit. (to) squeeze from citizens taxes)

The valency frame:

$$
\operatorname{ACT}(.1) \operatorname{PAT}(.4) ? O R I G(o d+2, z+2)
$$

- vymáčknout z citrónu.DIR1 štávu (=lit. (to) extract from lemon juice)

The valency frame:

$$
\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{DIR1}(*)
$$

!!! Establishing a clear borderline between the Origo and the DIR1 modification is very problematic and requires further inquiry.

### 6.2.3.1.3.4. The borderline between the PAT, ORIG and EFF arguments and the DIR1 and DIR3 adjuncts

When analyzing relatively numerous verbs which subcategorize for modifications with the "initial" or "final state" meaning, it is necessary to decide whether these modifications should be assigned the PAT/ORIG-EFF pair of functors or rather the DIR1 - DIR3 pair of functors.

Due to the fact that the "initial" - "final state" interpretation is often more general than the simple directional interpretation expressed by "from - to" and due to the fact that the "from - to" interpretation is sometimes not available at all, the "initial" - "final state" meaning is captured by the semantically less specific modifications, the PAT/ORIG and EFF arguments (which are usually optional). Cf.:

- Překládal text z češtiny.ORIG do němčiny.EFF (=lit. (He) translated text from Czech to German.)

The valency frame for the given meaning of the verb prekládat (=translate):
ACT(.1) PAT(.4) ?ORIG(z+2) ? EFF(do+2)

- Změnila účes z kudrn.ORIG na rovné vlasy.EFF (=lit. (She) changed hairstyle from curly to straight hair.)

The valency frame for the given meaning of the verb změnit (=change):
ACT(.1) PAT(.4) ?ORIG(z+2) ?EFF(na+4,v+4,do-1[.4]))

- Výroba klesla z tisice. PAT kusi̊ na pět set.EFF (=lit. Production decreased from thousand pieces to five hundred.)

The valency frame for the given meaning of the verb klesnout (=decrease/go down):
ACT(.1) ? PAT(na+4) ?ORIG(z+2)
By using the functor pairs PAT/ORIG - EFF or DIR1 - DIR3, the abstract and literal verbal meanings are differentiated as well (see Section 6.2.3.1.1, "Literal, abstract and idiomatic meanings of verbs"), cf.:

- the meanings of the verb přecházet (=go over to/change over from sth to sth):
- přecházet z dvousměnného provozu.ORIG na třisměnný provoz.PAT (=lit. (to) change_over from two-shift operation to three-shift operation)

The valency frame:
$\operatorname{ACT}(.1) \operatorname{PAT}(\mathrm{k}+3, \mathrm{na}+4, \mathrm{v}+4)$ ?ORIG(od+2,z+2)

- přecházet zjednéstrany.DIR1 silnice na druhou \{strana.DIR3\} (=lit. (to) cross from one side (of) street to other)

The valency frame:
ACT(.1) DIR1(*) DIR3(*)
6.2.3.1.3.5. Status of the modification expressing "intention" (INTT) after verbs of "motion"

The similarity in meaning between the intention modification (INTT) and certain locative/directional modifications (DIR3 or LOC) after verbs of "motion" may cause difficulties when determing whether the given modification is INTT or rather an obligatory directional/locative adjunct.

The competition between the DIR3 and INTT modifications is given by the semantics of the verbs of "motion"; these verbs have often both a literal meaning ("motion") and a modal-like meaning ("intention"). The locative/directional meaning is primary; the intention meaning is only secondary. The voluntative modality constitutes another layer in the meaning of the verb, added to the primary "motion" meaning. When determining the valency frames of these verbs, the locative/directional modification is to be preferred (over the intention modification) for both meanings of the verb (i.e. for the "motion" or "transfer" meaning as well as for the modal (intention) meaning). The INTT modification is, hence, not included in the valency frames; it is an (optional) adjunct. Cf.:

- the verb přijít (=come):
- Přišel na koupaliště.DIR3 (=lit. (He) came to swimming pool.)
- Přišel se koupat.INTT (=lit. (He) came (to) REFL bath.)
- Přišel se koupat.INTT na koupaliště.DIR3 (=lit. (He) came (to) REFL bath to swimming pool.)

The valency frame for the given meaning of the verb prijít (=come):
ACT(.1) DIR3(*)

- the verb vydat se (=set out):
- Vydal se do lesa.DIR3 (=lit. (He) set_out to woods.)
- Vydal se na jahody. INTT (=lit. (He) set_out for strawberries.)
- Vydal se do lesa.DIR3 na jahody.INTT (=lit. (He) set_out to woods for strawberries.)

The valency frame for the given meaning of the verb vydat se (=set out):
ACT(.1) DIR3(*)

- the verb dojit (=get to/go and fetch):
- Došel do obchodu.DIR3 (=lit. (He) went to shop (to fetch sth))
- Došel pro nákup.INTT (=lit. (He) went for shopping)
- Došel do obchodu.DIR3 pro nákup.INTT (=lit. (He) went to shop for shopping.)

The valency frame for the given meaning of the verb dojit (=go and fetch):
ACT(.1) DIR3(*)
!!! However, the question is left open whether the INTT modification should be included in the valency frames in the cases where the voluntative modality is primary and the "motion" meaning is only secondary; the directional/locative adjunct would not be included in the valency frame, then; cf.:

- Jdu se oženit. (=lit. I go REFL get_married.)
$=I$ am going to get married .
- Jdu jí napsat (=lit. I go to_her write).
$=I$ am going to write to her


### 6.2.3.1.4. Finding the borderline between the individual argument functors

In a number of cases it is not clear which argument functor should be assigned to the modifications in question.

Cf:

- as for the verb bránit (=defend), it is not quite clear whether the second and third arguments are the Patient and Effect, or the Patient and Addressee; cf.:
- bránit děti před nebezpečím (=protect children from danger)

In this particuar case, the valency frame with the $\operatorname{ADDR}(.4)$ and $\operatorname{PAT}($ před +7 ;proti +3 ) modifications seems to be more appropriate.

- bránit majetek před zloději (=defend/protect (the) property from thieves)

In this case, the valency frame with the $\operatorname{PAT}(.4)$ and $\operatorname{EFF}$ (před +7 ;proti+ 3 ) modifications seems to be more appropriate.

In the valency lexicon, these cases are not analyzed in a consistent way; however, certain generalizations can be made:

- in case the accusative position is usually taken up by animate nouns, it is assigned the ADDR functor and the prepositional phrase is the Patient.
- if the accusative position can be occupied by both animate and inanimate nouns, it is analyzed as $\operatorname{PAT}(.4)$ and the prepositional phrase is EFF.

The valency frame for the verb bránit (=defend/protect) has the following form:
АСТ(.1) PAT(.4) ?EFF(před+7;proti+3)
bránit město před Švédy, proti nim (=lit. protect town from Swedes / against them)

### 6.2.3.1.5. Valency modifications competing for the same position (while the meaning of the verb is preserved)

It became apparent (in the process of building the valency lexicon) that with certain verbs, one of the valency positions may be occupied by modifications of different functors while the meaning of the verb is preserved (or it changes only a little). These are the cases of competing valency modifications.

Usually, the competition arises between an argument position and an obligatory adjunct position. However, the competition between different adjuncts is also possible. So far, the following types of the valency modification competition have been found:

- competing manner adjuncts (see Section 6.2.3.1.5.1, "Competing manner adjuncts"),
- the Addressee vs. locative/directional adjuncts (see Section 6.2.3.1.5.2, "Addressee vs. locative/directional adjuncts"),
- competing locative/directional adjuncts (of different types; see Section 6.2.3.1.5.3, "Competing locative/directional adjuncts (of different types)").

There are two ways to deal with these cases:

- the basic way is to introduce the concept of modification alternatives. So far, this is the solution adopted only for the cases of different types of manner adjuncts competing for the same position (see Section 6.2.3.1.5.1, "Competing manner adjuncts").
- other cases are treated as cases of multiple valency frames; i.e. if there are three different modifications competing for the same position, the verb is assigned three different valency frames. This has the following consequence: one meaning of the verb corresponds to several valency frames, which is a violation of the basic principle (see also Section 6.2.1.5, "Relationship between the verb meanings and valency frames").
!!! This is just a provisional solution. These cases (Section 6.2.3.1.5.2, "Addressee vs. locative/directional adjuncts" and Section 6.2.3.1.5.3, "Competing locative/directional adjuncts (of different types)") are most likely to be analyzed as cases with modification alternatives in the future.

The individual types of cases of competing modifications are described in more detail in the following sections.

### 6.2.3.1.5.1. Competing manner adjuncts

The obligatory manner adjunct position may be taken up by modifications with different functors: MANN, CRIT, ACMP, BEN, MEANS or CPR (see Section 7.6, "Functors for expressing manner and its specific variants") and still the meaning of the verb remains the same (which means that its valency frame is the same as well). Cf.:

- začal jednat zbrkle. MANN (=lit. (He) began (to) act impetuously)
- jedná prostřednictvím médií.MEANS (=lit. (He) acts through media)
- jedná podle regulí.CRIT (=lit. (He) acts according_to rules)
- jedná proti rozhodnutí. BEN úřadu (=lit. (He) acts against decision (of) institution)
- jedná s razancí.ACMP a bez diskutování.ACMP (=lit. (He) acts with vigour and without discussing)
- jedná otrocky.CPR (=lit. (He) acts slave-like)

The obligatory manner adjunct position is a position that allows for alternatives. The competing modifications (the different types of manner adjuncts) are separated by the | mark in the valency frame. For every verb, the possible types of manner adjuncts are specified in its valency frame since it is not the case that all types may always compete for the position.

Examples of valency frames with the obligatory manner modification:

- the valency frame for one of the meanings of the verb skončit (=end):
$\operatorname{ACT}(.1) \operatorname{MANN}(*)|\operatorname{CRIT}(*)| \operatorname{ACMP}(*)|\operatorname{BEN}(*)| \operatorname{CPR}(*) \mid \operatorname{MEANS}(*)$
jméno skončilo pismenem M.MEANS (=lit. (the) name ended with_letter M), s. na M.MEANS (=lit. end with M)
tak.MANN s. páteční úvodniky (=lit. so/like_this end Friday's editorials)
text s. akademicky.CPR (=lit. (the) text ended academic-like)

> slovo s. bez přizvuku.ACMP (=lit. (the) word ended without stress)
> věta s. v náš prospěch.BEN (=lit. (the) sentence ended in our favour)
> paragraf s. tradičně.CRIT (=lit. (the) article ended traditionally)
> dopis skončil: "Miluji tě.".MANN (=lit. (the) letter ended (with): I love you)

- the valency frame for one of the meanings of the verb chovat se (=behave):
$\operatorname{ACT}(.1) \operatorname{MANN}(*)|\operatorname{CRIT}(*)| \operatorname{ACMP}(*)|\operatorname{BEN}(*)| \operatorname{CPR}(*)$
chová se laskavě.MANN (=lit. (He) behaves REFL kindly)
ch. se podle pravidel.CRIT (=lit. (He) behaves REFL according_to rules)
ch. se otrocky.CPR (=lit. (He) behaves REFL slave-like)
ch. se bezchybně.ACMP (=lit. (He) behaves REFL flawlessly)
ch. se ku prospěchu věci.BEN (=lit. (He) behaves REFL in support (of the) thing)
For the description of the way the verbs with competing manner modification are represented in the tectogrammatical trees, see Section 6.2.4.3.1, "Representing the valency of verbs with competing valency modifications".
!!! Modification alternatives have only been introduced for verbs. For the corresponding deverbal nouns MANN is the only option.


### 6.2.3.1.5.2. Addressee vs. locative/directional adjuncts

A very common case of competing modifications (with the meaning preservation) is the case when the Addressee and a locative or directional adjunct compete for the same position (i.e. the modification with the ADDR functor competes with the LOC or DIR3 modification; possibly also the Addressee and the DIR1 modification).

In these cases, as many valency frames are constituted as there are competing modifications; i.e. if there are three modification competing for the same position (ADDR, LOC and DIR3), the verb is assigned three different valency frames. The basic principle: one meaning - one valency frame is violated here (see also Section 6.2.1.5, "Relationship between the verb meanings and valency frames"). Cf.:

- the competing modifications ADDR, DIR3 and LOC with the verb podat (=submit):
- podat stižnost $\underline{\text { úřadu. }}$. DDR (=lit. (to) lodge complaint institution.DAT)
- podat stižnost na úřad.DIR3 (=lit. (to) lodge complaint to institution)
- podat stižnost na úřadě.LOC (=lit. (to) lodge complaint at institution)

The modifications úřadu.ADDR, na úřad.DIR3 and na úřadě.LOC do not seem to change the meaning of the verb. For the time being, the valency lexicon contains three different valency frames for this meaning:

- $\operatorname{ACT}(.1) \operatorname{CPHR}(\{d u ̊ k a z$, informace,návrh,oznámení,podnět,protest,stížnost,výpověd’,zpráva,žádost,žaloba,...\}.4) $\operatorname{ADDR}(.3)$ podat stižnost úřadu (=lit. (to) lodge complaint institution.DAT)
- $\operatorname{ACT}(.1) \operatorname{CPHR}(\{d u ̊ k a z$, informace,návrh,oznámení,podnět,protest,stížnost,výpověd’,zpráva,žádost,žaloba,...\}.4) DIR3(*)
podat stižnost na úřad (=lit. (to) lodge complaint to institution)
- $\operatorname{ACT}(.1) \operatorname{CPHR}(\{d u ̊ k a z$, informace,návrh,oznámení,podnět,protest,stížnost,výpověd’,zpráva,žádost,žaloba,...\}.4) LOC(*)
podat stižnost na úřadě (=lit. (to) lodge complaint at institution)
- the competing modifications: ADDR and DIR1 with the verb odebrat (=take away):
- odebrat děti rodičiom.ADDR (=lit. (to) take_away children parents.DAT)
- odebrat děti od rodičư.DIR1 (=lit. (to) take_away children from parents)

It seems that the change of the modification (rodičům.ADDR vs. od rodičů.DIR1) does not lead to a change in the meaning of the verb. However, the current version of the valency lexicon contains two valency frames for this meaning of the verb:

- $\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{ADDR}(.3)$
odebrat nám tři body, o. jim penize z platu (=lit. (to) take_away we.DAT three points, take_away they.DAT money from salary); za neoprávněný start.CAUS (=lit. for false start)
- $\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{DIR1}(*)$
odebrat mouku z pytle, o. vzorek ze zboží, o. děti od rodičů (=lit. (to) take_away flour from sack, take_away sample from goods, children from parents); o. mu.BEN krev ze žily (=lit. take_away he.DAT blood from vein)

For the description of the way the verbs with competing modifications are represented in the tectogrammatical trees, see Section 6.2.4.3.1, "Representing the valency of verbs with competing valency modifications".

### 6.2.3.1.5.3. Competing locative/directional adjuncts (of different types)

A number of verbs with the semantics of "placing something somewhere" (umistit (=place), zakotvit (=cast anchor), zapsat (=register/enrol)) and with the semantics of "taking up a place" or "changing the position" (usednout (=take a seat)) require either a directional adjunct (DIR3) or a locative adjunct (LOC); the choice of the modification does not necessarily influence the meaning of the verb (see Section 7.4.3.1, "Borderline cases with the DIR3 functor"). For example:

- the competing modifications DIR3 and LOC with the verb umistit (=place):
- Umistil obrázek na nástěnku.DIR3 (=lit. (He) placed picture to notice_board)
$=$ the picture had not been at the notice board before .
- Umistil obrázek na nástěnce.LOC (=lit. (He) placed picture at notice_board)
$=$ the picture either had not been at the notice board before, or it had been there but was moved to another place within the notice board

The modification na nástěnce.LOC may but need not refer to a different situation than the modification na nástěnku.DIR3. The verb is assigned two valency frames at the moment (one of the reasons for that being that there is the potential meaning difference):

- ACT(.1) PAT(.4) LOC(*)
umístit miminko v ústavu (=lit. (to) place baby in institution)
- $\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{DIR} 3(*)$
umistit miminko do ústavu (=lit. (to) place baby to institution)
For the description of the way the verbs with the competing modifications are represented in the tectogrammatical trees, see Section 6.2.4.3.1, "Representing the valency of verbs with competing valency modifications".


### 6.2.3.1.6. Valency modifications expressing that something is in a particular "state"

Valency frames sometimes contain modifications whose meaning is that something is in a particular "state". These modifications are defined in Section 7.13.2, "Attribute with the meaning of "state"".

Those verbs for which the "state" modification and the modification closest in meaning are both obligatory are assigned two different valency frames - one for the state and one for the other meaning. The fact that a given modification has the state meaning is indicated by placing the equal sign ( $=$ ) before all the other (part-of-speech and morphemic) information in its surface form specification. Cf.:

- the meanings of the verb ocitnout se (=find oneself somewhere):
- Ocitl se ve městě. (=lit. (He) found himself in town)

The valency frame:
ACT(.1) LOC(*)

- Ocitla se pod tlakem (=lit. (She) found herself under pressure).

The valency frame for the "state" meaning:
$\operatorname{ACT}(.1) \mathrm{LOC}(=)$

- Ocitla se bez prostředků. (=lit. (She) found herself without resources (=penniless)). The valency frame for the "state" meaning:
$\operatorname{ACT}(.1) \operatorname{ACMP}(=)$
- the meanings of the verb prijít (=come):
- Přijít do města. (=lit. (to) come to town)

The valency frame:
ACT(.1) DIR3(*)

- Přijít do jiného stavu (=lit. (to) come into other state; meaning: get pregnant).

The valency frame for the "state" meaning:
ACT(.1) DIR3(=)

### 6.2.3.1.7. Valency frames of loan verbs

When determining the valency frames of loan verbs, considering their Czech synonyms is often useful. The valency of a loan verb and its Czech counterpart is usually identical. Cf.:

- the valency frame of the verb emigrovat (=emigrate) is analogous to the one of vystěhovat se (=emigrate):
- the valency frame of the verb emigrovat:

ACT(.1) DIR1(*)
kamarád emigroval z vlasti do USA (=lit. friend emigrated from home-country to the_USA)

- the valency frame for one of the meanings of the verb vystěhovat se (=emigrate/move out):

ACT(.1) DIR1(*)
vystěhoval se z města na venkov (=lit. (he) moved from town to country)

- the valency frame for the verb disponovat (=have at one's disposal) is analogous to the valency frame of one of the meanings of the verb nakládat (=treat/handle):
- the valency frame of the verb disponovat:

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ACT(.1) PAT(s+7) MANN(*)|ACMP(*)|CRIT(*)|CPR(*)
```

disponoval se zásobami neopatrně, d. s materiálem proti pravidlům (=lit. (he) treated with reserves carelessly, with material against rules)

- the valency frame for one of the meanings of the verb nakládat (=treat/handle):
$\operatorname{ACT}(.1) \operatorname{PAT}(\mathrm{s}+7) \operatorname{MANN}(*)|\operatorname{ACMP}(*)| \operatorname{CRIT}(*) \mid \operatorname{CPR}(*)$
umí zacházet s časem (=lit. (he) can handle with time)
- the valency frame of the verb demontovat (=dismantle/take apart) is analogous to the valency frame for one of the meanings of the verb rozebrat (=take apart):
- the valency frame of the verb demontovat:


## $\operatorname{ACT}(.1) \operatorname{PAT}(.4)$ ? $\operatorname{EFF}(\mathrm{na}+4)$

demontoval ponorkovou základnu, d. celý plot na malé kousky (=lit. (to) dismantle submarine base, $d$. whole fence into small pieces)

- the valency frame for one of the meanings of the verb rozebrat (=dismantle):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) ? \operatorname{EFF}(\mathrm{na}+4)$
rozebrat Říp na kamenivo, r. celý dům (=lit. dismantle Říp into stones, d. whole house)
More examples:
- dislokovat (=allocate places to) is like umistit (=place),
- deportovat (=deport) is like vyhostit (=expel),
- meditovat (=meditate) is like uvažovat (=think/ponder),
- devalvovat (=devalue) is like znehodnotit (=devalue/depreciate),
- absolvovat (=graduate) is like zakončit (=finish).


### 6.2.3.2. Valency of nouns

!!! Only those nouns are included in the valency lexicon that occured in the analyzed data and from these only:

- those nouns that are modified by at least one of the verbal arguments: ACT, PAT, ADDR, ORIG and EFF.
- deverbal nouns (ending with -ni and - $t i$ ) that function as the governing nodes of idiomatic expressions (whose dependents have the DPHR functor; see Section 6.8.1, "Non-verbal idioms"). Other nouns that function as the governing nodes of idiomatic expressions are included in the valency lexicon only selectively.
- nouns that constitute the nominal part of complex predicates (i.e. those with the CPHR functor)

The nouns with the typical nominal functors MAT and APP are not covered systematically.

### 6.2.3.2.1. The basic approach to the valency of nouns

When determining the valency frames of nouns it is necessary to consider the degree to which the nouns are nominal (i.e. the stage they got to in the process of substantivization - if they are deverbal); in this respect, two basic subgroups are distinguished:

- nouns referring to events or states.

Nouns referring to events and states are mostly nouns derived from verbs by means of the syntactic derivation. These are mainly so called verbal nouns and some event nouns, too.

- nouns not referring to events or states (they refer to a substance, property or circumstance).

Nouns not referring to events or states can be divided into several types:

- deverbal nouns derived from verbs by means of the lexical derivation,
- non-deverbal nouns derived from other parts of speech,
- non-derived nouns

The transitory type of nouns. A number of verbal and event nouns referring to events or states in certain contexts may refer to substances in other contexts. These constitute a transitory type of nouns. The transitory type consists of those verbal and event nouns for which it is difficult to determine without a sufficient context - whether they refer to events or states (syntactic derivation) or whether they refer to substances (lexical derivation). We assume that in a given context, it can be always determined which type we deal with.

For a classification of nouns, see also ???).
Nouns that can refer to both events or states and substances have at least two valency frames. However, in the valency lexicon, mainly those meanings of the nouns are included that occured in the analyzed data.

The valency frames of derived nouns depend on the valency frames of their base verbs. The valency frames of non-derived nouns are considered independently (of any other valency frames).
!!! Not many general claims can be made as to the behavior and types of (ad)nominal valency modifications; there are still some unresolved issues. It is more appropriate to talk about tendencies (not rules).

The basic rules (tendencies) for determining the valency frames of nouns are:

- deverbal nouns referring to events or states essentially share their valency frames with their base verbs (with the given meaning of the verb) - as to the number of the modifications, their type and obligatoriness). There are only systematic changes in the surface form of the modifications in their valency frames (see Section 6.2.3.2.3, "Arguments and adjuncts in the valency frames of nouns").
- in the valency frames of deverbal nouns not referring to events or states, the so called valency modification reduction (w.r.t. to the valency frames of the base verbs) takes place. However, there is no (argument) shifting to the positions of the reduced arguments. With derived nouns (except for the deverbal nouns referring to events or states), the argument shifting principle (see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)") does not
apply so that the valency frames of the base verbs and those of the corresponding derived nouns remain parallel.
- sometimes, the so called (argument) role "absorption" takes place (as a result of the lexical derivation). The role absorption is not a defining property of the lexical derivation, neither is it necessary for understanding a noun as a noun not referring to events or states. For more details on the role absorption, see Section 6.2.3.2.1.1, "Role absorption".
- a noun can have several event meanings and several non-event meanings at the same time. Deverbal nouns have often many meanings - they may refer to the event itself, to the result of the event but they may have completely lexicalized meanings, too. The substantivization process (the different stages of which correspond to the different meanings of the noun) are reflected in the existence of different valency frames.

In its event use, a noun usually has all the arguments and obligatory adjuncts of the base verb; towards the fully substantivized (lexicalized) meanings the verbal arguments become less and the nominal ones more frequent (predominant). These relatively subtle meaning differences are captured by assigning the nouns different valency frames. Cf.:

- the meanings and valency frames of the noun psani (=writing):
- the event meanings (parallel to the meanings of the verb psát (=write)):
- psani dlouhých textů (=lit. writing (of) long texts)

The valency frame:
$\operatorname{ACT}(.2 ; .7 ; . \mathrm{u}) \operatorname{PAT}(.2 ; . \mathrm{u}) ? \operatorname{ADDR}(.3)$

- psaní o událostech v Anglii (=lit. writing about events in England)

The valency frame:
$\operatorname{ACT}(.2 ; 7 ; \cdot \mathrm{u}) \operatorname{PAT}(\mathrm{o}+6)$ ? $\operatorname{ADDR}(.3)$

- the non-event meanings:
- psaní mamince (=lit. writing (to) mum.DAT; a letter)

The valency frame:
$\operatorname{ADDR}(.3)$

- psaní Montblank je také přijatelné (=lit. writing Mont Blanc is also acceptable)

The valency frame:
? АСТ(.2;.u;.7) ? $\operatorname{PAT(.2;.u)~}$
Cf.:

- the meanings and valency frames of the noun baleni (=packing):
- the event meanings (parallel to the meanings of the verb balit (=pack)):
- balení másla na jednotlivé porce (=lit. packing (of) butter into individual portions)

The valency frame:

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ACT(.2;.7;.u) PAT(.2;.u) ?EFF(na+4;v+4;do+2)
```

- the non-event meanings:
- balení másla ve fólii, dárkové balení vína (=lit. packing (of) butter in foil, gift packing (of) wine; a packet of butter, a gift-wrapping)

The valency frame:
?MAT(.2)

- kniha v brožurkovém balení (=lit. book in brochure packing; i.e. softback/paperback)

The valency frame:
EMPTY

- Also non-derived nouns have subcategorization requirements. When determining the valency of non-derived nouns, the semantics of their modifications is crucial. If a modification of a non-derived noun is semantically well-defined, it is usually assigned one of the nominal functors APP and MAT. If the valency modification has no clearly defined semantic content it is usually assigned the PAT functor. With non-derived nouns, the argument shifting principle does not apply (see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)"). Cf.:
- podstata novely (=the essence of the novel)

The valency frame for the given meaning of the noun podstata (=essence/heart/gist):

## $\operatorname{APP}(.2 ; . \mathrm{u})$

- skupina studentio (=a group of students)

The valency frame for the given meaning of the noun skupina (=group):
?MAT(.2)

- připad tohoto vozu (=the case of this car)

The valency frame for the given meaning of the noun príipad (=case):
$\operatorname{PAT}(.2 ; . \mathrm{u}, \mathrm{s}+7)$

### 6.2.3.2.1.1. Role absorption

Sometimes, when deriving nouns from verbs by means of the lexical derivation, the so called "role absorption" takes place. The role absorption is not a defining property of the lexical derivation, neither is it necessary for understanding a noun as a noun not referring to events or states.

The role absorption may be defined as follows: the semantics of a certain argument (or possibly an adjunct) which is part of the valency frame of the base verb is incorporated in the meaning of the derived noun. As a result, the derived noun does not have the incorporated (absorbed) argument (adjunct) in its valency frame.

The argument shifting principle does not apply in these cases (for the discussion of the argument shifting, see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)") so that the parallel between the valency frames of the noun and its corresponding verb stayed preserved. For example, if the Actor role is absorbed, it does not mean that the Patient is to be moved to its position (if the base verb has a Patient); the Actor is simply missing from the valency frame of the noun.

Examples of lexically derived nouns with absorbed (incorporated) arguments (adjuncts):

- Actor absorption:
- dodávat výrobky obchodnikům (=lit. supply products (to) dealers)

The valency frame for the given meaning of the verb dodávat (=supply):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{ADDR}(.3)$

- dodavatel zařizzení firemním obchodiom (=lit. supplier (of) equipment/accesories (to) shops)

The valency frame for the given meaning of the noun dodavatel (=supplier):

```
PAT(.2;.u) ?ADDR(.3)
```

Especially agent nouns undergo the Actor absorption (see Section 6.2.3.2.4.3, "Valency frames of agent nouns").

- Patient absorption:
- vydal všechny peníze za získání bytu (=lit. spend/give all money for getting appartment)

The valency frame for the given meaning of the verb vydat (=spend):
ACT(.1) PAT(.4) ? EFF(za+4)

- peněžní vydání domácnosti (=lit. financial spendings (of) household; household expenses)

The valency frame for the given meaning of the noun vydáni (=expenses):
?АСТ(.2;.u)

Nouns with the absorbed Patient role can have a new modification, which is assigned the PAT functor for its lack of semantic specificity (see also Section 6.2.3.2.3, "Arguments and adjuncts in the valency frames of nouns"). This Patient is not a Patient inherited from the verb but a Patient acquired in the process of the lexical derivation. Srov.:

- herec skvěle představil Harpagona (=lit. actor splendidly played Harpagon)

The valency frame for the given meaning of the verb představit (=present/play):
ACT(.1) PAT(.4)

- loutková představení o Hurvínkovi (=lit. puppet shows about Hurvinek)

The valency frame for the given meaning of the noun představení (=show/performance):
?PAT( $0+6$ )

- Effect absorption:
- psal jí o táboře, že byl moc pěkný (=lit. (he) wrote her about camp that it was very nice)

The valency frame for the given meaning of the verb psát (=write):
$\operatorname{ACT}(.1) ? \operatorname{PAT}(\mathrm{o}+6)$ ? $\operatorname{ADDR}(.3) \operatorname{EFF}(.4 ;$ že[.v];aby[.v];.s)

- dopis Clintona Jelcinovi, dopisy o naší nové práci (=lit. letter (from) Clinton (to) Yeltsin, letters about our new job)

The valency frame for the given meaning of the noun dopis (=letter):
$\operatorname{ACT}(.2 ; \mathrm{od}+2 ; . \mathrm{u}) ? \operatorname{PAT}(\mathrm{o}+6) \operatorname{ADDR}(.3)$
Especially nouns referring to the result of an event undergo the Effect absorption (see Section 6.2.3.2.4.2, "Valency frames of nouns referring to the result of an event or the affected object").

- the locative adjunct absorption (LOC):
- Škola dětem půjčuje učebnice (=lit. school (to) children lends textbooks)

The valency frame for the given meaning of the verb puijčovat (=lend/rent):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{ADDR}(.3)$

- půjčovna horských kol (=lit. rental (of) mountain bikes)

The valency frame for the given meaning of the noun piyčovna (=rental):

```
PAT(.2;.u) ?ADDR(.3)
```

The locative adjunct absorption (LOC) usually takes place when deriving place names; also the Actor position is often lost, but not necessarily (e.g.: puisobiště umëlce.ACT (=lit. sphere_of_activity (of) artist), rejdiště zlodějü.ACT (=lit.haunt (of) thieves). For the discussion of the valency frames of place names see Section 6.2.3.2.4.4, "Valency frames of nouns: names of places of action".

- the means adjunct absorption (MEANS):
- tisknout penize (=print money)

The valency frame for the given meaning of the verb tisknout (=print):
ACT(.1) PAT(.4) ?ORIG(z+2)

- tiskárna bankovek (=lit. printing_house (of) banknotes)

The valency frame for the given meaning of the noun tiskárna (=printing house):
? PAT(.2;.u)
The means adjunct (MEANS) absorption takes place when deriving names of various instruments or tools; usually, also the Actor position is lost. For a discussion of the valency frames of various names of instruments, see Section 6.2.3.2.4.5, "Valency frames of nouns: names of instruments".

### 6.2.3.2.2. Classification of nouns w.r.t. their valency behavior

It is convenient to propose a classification of nouns (into several groups) according to their wordformation type - to make the valency-related decisions easier:

## - nouns derived from verbs (deverbal nouns).

Deverbal nouns are classified with respect to two criteria:
a. deverbal nouns are divided into several subgroups according to their derivational suffix:

- verbal nouns.

The term verbal nouns is reserved for the nouns derived by means of the derivational suffixes -ní or -tí.

For example: dělání (=doing), pokrytí (=covering).

- event nouns.

The term event nouns is used for deverbal nouns that may refer to events or states but that are derived from verbs by other means than the suffixes -ni and -tí.

For example: výroba (=production), prodej (=sale).

- other deverbal nouns.

For example: učitel (=teacher), prádelna (=laundry).
b. according to the type of derivation, deverbal nouns are classified as follows:

- nouns derived from verbs by means of the syntactic derivation.

Nouns derived from verbs by means of the syntactic derivation are:

- verbal nouns referring to events
- event nouns referring to events.
- nouns derived from verbs by means of the lexical derivation.

Nouns derived from verbs by means of the lexical derivation are mainly:

- deverbal nouns: names of the result (of the event),
- deverbal nouns: names of places of action,
- deverbal nouns: names of instruments,
- agent nouns.
- nouns that are not derived from verbs (non-deverbal nouns).

Non-deverbal nouns include:

- non-derived nouns and nouns derived from other parts of speech than verbs, especially:
- nouns referring to blood (family) relations,
- names of intellectual products (artefacts),
- nouns with the meaning of a "container",
- nouns referring to personal qualities and properties of things

Nouns of all the classes above may have subcategorization requirements (valency; according to the definition in Section 6.2.1, "The PDT approach to valency").

| Nouns referring to events <br> or states | Nouns not referring to events or states | Type of deriv- <br> ation | Derivational <br> point of view |
| :--- | :--- | :--- | :--- |
| verbal and event nouns <br> předávání cen vítězüm <br> (=lit. handing prizes (to) <br> winners) |  | syntactic de- <br> rivation | Deverbal <br> nouns |
| výplata peněz zaměst- <br> nancu̇m (=lit. payment (of) <br> money (to) employees) | derived from <br> verbs) |  |  |
|  | verbal and event nouns <br> - with a role absorption <br> moje první výplata (=my first pay/salary), | lexical deriva- <br> tion |  |


| Nouns referring to events or states | Nouns not referring to events or states | Type of derivation | Derivational point of view |
| :---: | :---: | :---: | :---: |
|  | stavba (=building), vydání (=publication/edition), balení (=packaging) <br> - without a role absorption <br> modrá dodávka (auto) (=a blue pick-up; lit. blue delivery) <br> other nouns <br> (with a role absorption) <br> učitel, struhadlo (=teacher, grater), <br> tiskárna (=printing house), prádelna (=laundry) |  |  |
| verbal and event nouns <br> psani (=writing/letter), blahoprání (=congratulating/congratulation), oznámení (=announcing/announcement), <br> povolení (=permitting/permission), rozhodnutí (=decision), <br> výplata (=payment/pay), dluh (=debt), přinos (=contribution) |  | transitory <br> type |  |
|  | ```vlhkost vzduchu (=air humidity), možnost (=possibility), schopnost (=abil- ity)``` | syntactic derivation | Non-deverbal nouns <br> - derived from other parts of speech |
|  | ostř̌' nože (=knife edge) | lexical derivation |  |
|  | skupina lidí (=group of people) <br> otec vlasti ( $=$ Father of his country) <br> pohádka o drakovi (=fairy tale) |  | Non-derived nouns |

### 6.2.3.2.3. Arguments and adjuncts in the valency frames of nouns

When considering the valency of nouns, we cannot do with verbal arguments only. Apart from the verbal arguments: ACT, PAT, ADDR, EFF and ORIG there is also a specific nominal argument - MAT (partitive).

Adnominal argument with the MAT functor. The functor MAT is used for labelling modifications of nouns which have a "container" meaning. These nouns are usually non-derived and form a well-defined class; i.e. they may be listed. A new, exclusively nominal argument is introduced for this type of modification, its functor being MAT (for details regarding the MAT functor, see Section 7.10.4, "MAT"; for a discussion on the valency frames with the MAT functor, see Section 6.2.3.2.4.8, "Valency frames of nouns with the "container" meaning").

Obligatory adjuncts modifying nouns. Valency frames of nouns may contain not only arguments but also obligatory (adverbal) adjuncts (especially those with the DIR3, LOC and MANN functors) and there is also a specific adnominal adjunct $\operatorname{APP}$ (for details regarding the APP functor, see Section 7.10.1, "APP"; for a discussion on the valency frames with the APP functor, see Section 6.2.3.2.4.9, "Valency frames of nouns referring to personal qualities and properties of things").
!!! Determining the valency frames of nouns has its specific problems. The point of departure for determing the valency of nouns is the theory of verbal valency. It has turned out that a number of conclusions made for the valency of verbs is valid also for a great number of deverbal nouns. The valency of deverbal nouns referring to events or states is the least problematic area of the valency of nouns. However, nouns have their specific issues, too; determining the functors of their modifications is rather difficult and it is made even more complex by the existence of the specific nominal modifications (MAT and APP; see Section 6.2.3.2.3.3, "Borderline between the Patient and the MAT and APP functors"), moreover, it is very difficult to determine whether a given modification is obligatory or optional - the dialogue test does not seem to be very reliable with nouns (for the details on the dialogue test, see Section 6.2.1.2, "Criteria for distinguishing between obligatory and optional modifications"). As for the nouns not referring to events or states, it is more appropriate to talk about certain tendencies, not rules.

Deverbal nouns referring to events in principle share the valency frames with their base verbs (see Section 6.2.3.2.4.1, "Valency frames of nouns referring to events"). As for the nouns that do not refer to events, there is a scale: deverbal event and verbal nouns - other deverbal nouns - non-deverbal derived nouns - non-derived nouns (see the column in ???); going down on the scale:

- the typical verbal arguments are becoming less prominent, especially those with the more specific semantics (ADDR, EFF).

Cf.:

- the valency frames for the noun návrh (=proposal/suggestion):
- $\operatorname{ACT}(.2 ; . \mathrm{u}) \operatorname{PAT}(.2, \mathrm{na}+4, . \mathrm{f}, \mathrm{aby}[. \mathrm{v}], . \mathrm{c})$ ? $\operatorname{ADDR}(.3)$
návrh parlamentu na změnu v ústavě (=lit. proposal (of) Parliament for change in constitution)
(event use)
- ? $\operatorname{ACT}(.2 ; . \mathrm{u}) \operatorname{PAT}(.2)$
návrh zákona, návrh př̌slušných smluv (=lit. proposal (of) law, proposal (of) relevant agreements)
(non-event use, i.e. the document; contrary to the event use, the Addressee is absent)
- ? $\mathrm{ACT}(.2 ; \mathrm{u})$ ? $\mathrm{PAT}(\mathrm{na}+4)$
návrh na vzetí, na vklad,na stanovení, na zachování, na změny (=lit. proposal for taking, depositing, establishing..)
(non-event use, i.e. the document; contrary to the event use, the Addressee is absent/reduced)
- as for the verbal arguments, it is the Patient that can be found in the valency frames of nouns most often; notice that it is the argument that is semantically very vague (also non-derived nouns can have a Patient, see Section 6.2.3.2.3, "Arguments and adjuncts in the valency frames of nouns").

Cf.:

- valency frame for one of the meanings of the noun báseň (=poem):
?PAT(o+6)
jeho.AUTH básně o lásce.PAT (=his poems about love)
- valency frame for one of the meanings of the noun prriklad (=example):

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PAT(.2;.u;.c)
```

přiklady cen.PAT prací restaurátorů (=lit. examples (of) prices (of) works (of) restaurateurs), nesčetně přikladů, jak je.PAT nutné pohližet na diktatury (=lit. countless examples how (it) is necessary (to) look at dictatorships), dost přikladu toho, že akcionárí zhodnotili.PAT akcie (=lit. enough examples (of) that that shareholders increased_the_value (of) shares)

- the ORIG modification, which is an argument with verbs, becomes an adjunct when modifying nouns (see Section 6.2.3.2.3.2, "Origo as a modifier of nouns").


## Cf.:

- látky z medu.ORIG (=lit. substances from honey)

The valency frame:

## EMPTY

The ORIG modification is an adjunct (non-valency modification) here.

- boty z pneumatik.ORIG (=lit. shoes from tires)

The valency frame:
EMPTY
The ORIG modification is an adjunct (non-valency modification) here.

- fully nominal (substantivized) uses (i.e. mainly the non-derived nouns) may have adnominal arguments (MAT) or adnominal adjuncts APP in their valency frames.

Cf.:

- the deverbal noun baleni (=packaging) has, in one of its meanings (i.e. in the "container" meaning), the following valency frame:
?MAT(.2)
balení másla.MAT ve fóliii (=lit. packaging (of) butter in foil), dárkové balení vina.MAT (=lit. gift wrapping (of) wine)

For a discussion on the borderline between the MAT and APP modifications, see Section 6.2.3.2.3.3, "Borderline between the Patient and the MAT and APP functors".
!!! The problem regarding the obligatoriness or optionality of adnominal valency modifications has not been satisfactorily solved yet. Therefore, there is a high degree of inconsistency in representing obligatoriness (optionality) in the valency frames of nouns. However, neither determining which modifications are present in the valency frames of nouns and their labelling is very consistent throughout the data, since it is impossible to reach the complete consistency solely on the basis of implementing the few discovered tendencies and adopted conventions that there are (Section 6.2.3.2.4, "Valency frames of individual groups of nouns").

Surface forms of the valency modifications of nouns. The surface forms of valency modifications modifying nouns vary with the individual nouns. The surface-form records contain all possible forms of the modification in question that were found in the analyzed data. Only the form mezi+7 is not icluded as it only signal the presence of a reciprocal relation between two arguments of the noun (see Section 6.2.4.2.1, "Valency frames and reciprocity").

The most common forms and meanings of individual arguments are described in Chapter 7, Functors and subfunctors.

### 6.2.3.2.3.1. Borderline between the Actor and AUTH

It has turned out that the modification referring to the author of a thing (artefact), which gets the ACT functor with verbs, has various adjunct-like characteristics with nouns:

- it can modify most nouns.

For example:
básně V. Nezvala.AUTH(=lit. poems (by) V. Nezval)
akvarely Fr. $\underline{\text { Bezděka.AUTH(=lit. watercolor_paintings (by) Fr. Bezděk) }}$
Formanův.AUTH Amadeus (=Forman's Amadeus)
jeho.AUTH kniha (=his book)

- it can modify a noun more than once.

For example:
Smetanova.AUTH Prodaná nevěsta od Sabiny.AUTH(=Smetana's Bartered Bride by Sabina)

The modification referring to the author is only assigned the Actor label when it modifies a deverbal noun: name of the result of an event (i.e. when it modifies verb-like nouns; see Section 6.2.3.2.4.2, "Valency frames of nouns referring to the result of an event or the affected object"). When such a modification modifies a noun: name of an intellectual product, the AUTH functor is used, which was introduced exclusively for this type of modification (see Section 7.10.2, "AUTH"). This modification is an adjunct.

For a discussion on names of intellectual products, artefacts, see also Section 6.2.3.2.4.7, "Valency frames of nouns: names of intellectual products (artefacts)".

### 6.2.3.2.3.2. Origo as a modifier of nouns

Origo is introduces as one of the five (ad)verbal arguments in Section 6.2.1.1, "Criteria for distinguishing between inner participants (arguments) and free modifications (adjuncts)". However, it has turned out that with a number of nouns, the ORIG modification has the properties of an adjunct:

- it can coccur with all (most) nouns.

For example:
boty z pneumatik.ORIG(=lit. shoes from tires)
nádoba z plechu. ORIG (=lit. container from sheet_metal)
kaluž $\underline{z}$ tajícího sněhu. ORIG (=lit. puddle from melting snow)
miliarda od světové banky.ORIG(=lit. billion from world bank)

- it can modify a noun more than once.

For example:
nábytek $\underline{z}$ měkkého dřeva. ORIG od přibuzných. ORIG (=lit. furniture from soft wood from relatives)
boty z kůžé.ORIG od tety.ORIG(=lit. shoes from leather from aunt)

Therefore, Origo is considered an argument only with deverbal nouns referring to events (see Section 6.2.3.2.4.1, "Valency frames of nouns referring to events"), possibly also with nouns referring to the affected object or the result of an event (see Section 6.2.3.2.4.2, "Valency frames of nouns referring to the result of an event or the affected object"). With other nouns, the ORIG modification is considered an adjunct. The nouns listed above are assigned empty valency frames, then.
!!! The nature of the ORIG modification with nouns remains an open issue. In the future, it will be probably necessary to distinguish the cases like nábytek ze dřeva (=lit. furniture from wood) from the cases like nábytek od přibuzných (=furniture from the relatives) - most likely by introducing new functors for these meanings (just like the AUTH functor was introduced next to the ACT functor which has a similar semantics; see Section 6.2.3.2.3.1, "Borderline between the Actor and AUTH").

### 6.2.3.2.3.3. Borderline between the Patient and the MAT and APP functors

The Patient is the semantically least specific argument; therefore, it is used for the semantically least specific valency modifications of nouns (non-derived nouns included). The meanings typical for adnominal modifications are captured by the APP and MAT functors; these functors are only assigned to those meanings of nouns that are clearly "nominal", non-eventive.

A valency frame that contains an APP or MAT modification should not contain any more valency modifications.
!!! It seems that for some of the meanings usually captured by the use of the PAT functor a new functor should be introduced. It concerns the following cases:
kniha o zvíratech.PAT (=lit. book about animals)
socha Davida.PAT (=lit. statue (of) David)

### 6.2.3.2.4. Valency frames of individual groups of nouns

In the present section, the conventions are described that have been adopted for determining what the appropriate valency frames of the following groups of nouns are:

- nouns referring to events (see Section 6.2.3.2.4.1, "Valency frames of nouns referring to events"),
- nouns referring to affected objects or the results of events (see Section 6.2.3.2.4.2, "Valency frames of nouns referring to the result of an event or the affected object"),
- agent nouns (see Section 6.2.3.2.4.3, "Valency frames of agent nouns"),
- names (nouns) of places of action (see Section 6.2.3.2.4.4, "Valency frames of nouns: names of places of action"),
- names (nouns) of instruments (needed for carrying-out an activity; see Section 6.2.3.2.4.5, "Valency frames of nouns: names of instruments"),
- nouns referring to blood (family) relations (see Section 6.2.3.2.4.6, "Valency frames of nouns referring to blood (family) relations"),
- names (nouns) of intellectual products (see Section 6.2.3.2.4.7, "Valency frames of nouns: names of intellectual products (artefacts)"),
- nouns with the "container" meaning (see Section 6.2.3.2.4.8, "Valency frames of nouns with the "container" meaning"),
- nouns referring to personal qualities and properties of things (see Section 6.2.3.2.4.9, "Valency frames of nouns referring to personal qualities and properties of things").
!!! During the constitution of the valency lexicon, not all conventions described in this section had been adopted yet. They developed only gradually during the process of constituting individual valency frames for individual nouns (and are not reflected in the valency lexicon in their entirety). Moreover, the fact that different nouns belong to different semantically defined groups was not taken into account when constituting their valency frames; the organization is simply alphabetical. As a result, the valency frames within individual groups of nouns may be rather inconsistent (w.r.t. each other).


### 6.2.3.2.4.1. Valency frames of nouns referring to events

Nouns referring to events are nouns derived from verbs by means of the syntactic derivation. These are mainly verbal and event nouns. For example:
diskuze (=discussion), schůzka (=meeting), zločin (=crime), adopce (=adoption), jednání (=negotiation), zlepšování (=improvement), budování (=building), hanobení (=defamation), abdikace (=abdication), chátrání (=decay/dilapidation), adaptace (=adjustment/adaptation), lpění (=sticking)

Nouns referring to events (or states) express some (sometimes all) of the meanings of their base verbs. In clear cases, the base verb is specified in the valency frames, in brackets, preceding the examples.

However, usually, nouns preserve only some of the meanings of their base verbs. Deverbal nouns referring to events have usually less different meanings than their base verbs.
!!! The valency lexicon does not contain links between the valency frames of deverbal nouns and the valency frames of their corresponding verbs so far.

All verbal and event nouns have their sempos grammateme filled with a value appropriate for semantic nouns.
!!! In the future, the t -lemma assigned to nouns referring to events or states will be identical to the t lemma of their base verbs and the value of their sempos grammateme will be $v$ (see also Section 5.1, "Syntactic and lexical derivation").

Formal changes in the valency frames of nouns (compared to the valency frames of their base verbs). Verbal and event nouns referring to events or states in principle share tne valency frames with their base verbs (as to the number, type and obligatoriness of their modifications). Only systematic changes in the surface form take place in the valency frames of these nouns; e.g.:

- $\operatorname{ACT}(.1) \rightarrow \operatorname{ACT}(.2, . \mathrm{u})$
- $\operatorname{ACT}(.1) \operatorname{PAT}(.4) \rightarrow \operatorname{ACT}(.2, .7, . \mathrm{u}) \operatorname{PAT}(.2)$
- $\operatorname{ACT}(.1) \operatorname{PAT}(.4) \rightarrow \operatorname{ACT}(.7$, od+2) $\operatorname{PAT}($. u)
- $\operatorname{ACT}(.1) \operatorname{PAT}(.2) \rightarrow \operatorname{ACT}(.7, . u) \operatorname{PAT}(.2)$
- $\operatorname{ACT}(.1) \operatorname{PAT}(.2) \rightarrow \operatorname{ACT}(.7) \operatorname{PAT}(. u)$
- $\operatorname{ACT}(.1) \operatorname{PAT}(.7) \rightarrow \operatorname{ACT}(.2$, u) $\operatorname{PAT}(.7)$
- $\operatorname{ACT}(.1) \operatorname{PAT}($ different form $) \rightarrow \operatorname{ACT}(.2, .7, . \mathrm{u}, \mathrm{od}+2) \operatorname{PAT}($ different form $)$
- $\operatorname{ACT}(.1) \operatorname{PAT}(\mathrm{o}+6) \operatorname{ADDR}(.4) \rightarrow \operatorname{ACT}(.7, . \mathrm{u}) \operatorname{PAT}(\mathrm{o}+6) \operatorname{ADDR}(.2)$
- $\operatorname{ACT}(.1) \operatorname{PAT}(\mathrm{o}+6) \operatorname{ADDR}(.4) \rightarrow \operatorname{ACT}(.7) \operatorname{PAT}(\mathrm{o}+6) \operatorname{ADDR}(. \mathrm{u})$
- $\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{ADDR}(.3) \rightarrow \operatorname{ACT}(.7, . \mathrm{u}, \mathrm{od}+2) \operatorname{PAT}(.2) \operatorname{ADDR}(.3)$
- $\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{ADDR}(.3) \rightarrow \operatorname{ACT}(.7) \operatorname{PAT}(. \mathbf{u}) \operatorname{ADDR}(.3)$
- $\operatorname{ACT}(.1) \operatorname{PAT}(.7) \operatorname{ADDR}(.4) \rightarrow \operatorname{ACT}(.7,, u, o d+2) \operatorname{PAT}(.7) \operatorname{ADDR}(.2)$
- $\operatorname{ACT}(.1) \operatorname{PAT}(.2) \operatorname{ADDR}(.4) \rightarrow \operatorname{ACT}(.7$, u) $\operatorname{PAT}(.2) \operatorname{ADDR}(.2)$
- $\operatorname{ACT}(.1) \operatorname{PAT}(.2) \operatorname{ADDR}(.4) \rightarrow \operatorname{ACT}(.7) \operatorname{PAT}(.2) \operatorname{ADDR}($. u)
- $\operatorname{ACT}(.1) \operatorname{PAT}(\mathrm{o}+4, \mathrm{o}+6) \operatorname{ADDR}(\mathrm{s}+7) \rightarrow \operatorname{ACT}(.2, . \mathrm{u}) \operatorname{PAT}(\mathrm{o}+4, \mathrm{o}+6) \operatorname{ADDR}(\mathrm{s}+7)$

The list is naturally incomplete, it is only supposed to point out the basic tendencies.
Cf.:

- the following valency frames of the verb budovat (=build):
- ACT(.1) PAT(.4) ?ORIG(z+2) budoval věz z kostek (=lit. build tower from cubes)
- $\operatorname{ACT}(.1) \operatorname{PAT}(.4)$ ?ORIG(na+6) budoval kariéru na práci druhých (=lit. build carrier on work (of) others)
- the valency frames of the corresponding noun budování (=building):
- $\operatorname{ACT}(.2 ; .7 ; . \mathrm{u}) \operatorname{PAT}(.2)$ ?ORIG(z+2)
budování silnic z mistního kamene (=lit. building (of) roads from local stone)
- $\operatorname{ACT}(.2 ; .7 ; \cdot \mathrm{u}) \operatorname{PAT}(.2)$ ?ORIG(na+6)
budování image orchestru na jiných základech (=lit. building (of) image (of) orchestra on other foundations)
- valency frame for one of the meanings of the verb hanobit (=defame):
- ACT(.1) PAT(.4)
hanobit národ (=lit. defame nation)
- valency frame of the corresponding noun hanobení (=defamation):
- $\operatorname{ACT}(.2 ; .7 ; . \mathrm{u}) \operatorname{PAT}(.2 ; . \mathrm{u})$
hanobení národa některými politiky (=lit. defamation (of) nation (by) some politicians)
- valency frame for one of the meanings of the verb abdikovat (=abdicate):
- $\operatorname{ACT}(.1)$ cisař abdikoval (=lit. emperor abdicated)
- valency frame for one of the meanings of the noun abdikace (=abdication):
- $\operatorname{ACT}(.2 ; . \mathrm{u})$ abdikace jeho předchůdce (=lit. abdication (of) his predecessor)
- valency frame for one of the meanings of the verb chátrat (=decay/become dilapidated):
- $\operatorname{ACT}(.1)$ objekt chátrá (=lit. object (=the building) is_becoming_dilapidated)
- valency frame for one of the meanings of the noun chátrání (=dilapidation):

```
- ACT(.2;.u)
    chátrání bytového fondu (=lit. dilapidation (of) available housing)
```

The genitive form. There are several possible surface forms available for an argument of a noun; the genitive form (being a structural case with nouns) occupies the highest position in the hierarchy - together with the possessive adjective form. The genitive case is the usual form of the Patient argument. However, if the Patient is not present or if its form is different (e.g. if it si a prepositional phrase), the genitive position may be taken up by another argument (e.g. the Actor or Addressee). Sometimes, two different modifications can be in the genitive simultaneously (e.g. zbavení ženy.ADDR starostí.PAT (=lit. freeing woman.GEN worries.GEN); in some cases, it is due to the clumsiness of the speaker (adaptace Petra Lébla.ACT Čechovovy hry.PAT (=lit. adaptation Petr Lebl.GEN Tschekhov's play.GEN).

The prepositional phrase form. If the base verb has a modification in the form of a prepositional phrase, the form remains the same for the derived noun, too. Cf.:

- valency frame for one of the meanings of the verb lpět (=cling/stick):
- ACT(.1) PAT(na+6)
lpět na kvalitním výcviku (=lit. stick to quality training)
- valency frame for one of the meanings of the noun lpění (=sticking):
- ACT(.2;.u) PAT(na+6)
lpění sportovců na soutěžich (=sticking (of) sportsmen to competitions)
The adjectival form. Valency modifications of nouns can also have the form of an adjective. This mainly concerns the modifications that have the form af an adverb when they modify verbs (LOC, DIR3, MANN). It is less usual for nouns to have their (obligatory adjunct) modifications in the form of an adverb (e.g.: příjezd domů (=(our) arrival home), pobyt zde (=(our) stay here), often, this possibility is not available at all (especially if the modification has the MANN functor) - usually, such a modification is in the form of an adjective (it is a type of syntactic derivation). Cf.:
- Pavel se chová se slušně.MANN (=lit. Pavel behaves REFL decently/properly)
- slušné.MANN chování (=lit. decent/proper behavior)

As for optional adjuncts, the adjectival form is rather typical (e.g.: zdejši.LOC výskyt (=lit. here.adj incidence), tehdejší.TWHEN pobyt ve východni Evropě (=lit. that_time.adj stay in Eastern Europe), letošní.TWHEN přichod zimy (=lit. this_year's.adj arrival (of) winter), vysoké.EXT zatĩžení (=lit. high load)). See Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events".

Also arguments may have the form of an adjective, which is an alternative to the genitive form. Cf.:

- chování Pavla.ACT (=lit. behavior Pavel.GEN);
- Pavlovo.ACT chování (=Pavel's.adj behavior).
- rozhodnutí Pavla.ACT (=lit. decision Pavel.GEN);
- Pavlovo.ACT rozhodnutí (Pavel's.adj decision).
!!! It is still not clear whether it is possible for an argument of a noun to have the form of a non-possessive adjective. When a possessive adjective cannot be derived from a noun (i.e. when the required possessive adjective is non-existent), it is probably legitimate to use an adjectival form (of an argument), next to the genitive form. Cf.:
- rozhodnutí soudu.АСТ (=lit. decision court.GEN)
- soudní rozhodnutí (=lit. court.adj decision; the adjective is non-possessive)

However, this possibility was not taken into account (when analyzing the data). In the data, adjectival modifications are assigned the RSTR functor; possibly other functors, too: MANN (soudní.MANN rozhodnutí (=lit. court.adj decision)).

For a discussion on the functors assigned to non-valency modifications of nouns referring to events, see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events".
!!! As for the nouns referring to events, a subsequent check on the way their valency is represented in the tectogrammatical trees took place only in the case of verbal nouns (ending with -ní or -ti). As for other types of nouns referring to events, it cannot be guaranteed that the functors were assigned to the modifications correctly. For more details see Section 6.2.4, "Representing valency in the tectogrammatical trees".

### 6.2.3.2.4.2. Valency frames of nouns referring to the result of an event or the affected object

Nouns referring to the result of an event or the affected object can be both derived and non-derived nouns.

Deverbal nouns referring to the result of an event or the affected object constitute one of the most problematic groups of nouns w.r.t. their valency frame constitution. These nouns are often derived from verbs by means of the lexical derivation, which often leads to the Effect or Patient absorption (see Section 6.2.3.2.1.1, "Role absorption"). Some examples:
dopis (=letter; derived from psát (=to write)), výplata (=pay/salary), výrobek (=product), četba (=reading), nákup (=shopping), kresba (=drawing), informace (=information), práce (=work), žádost (=application/request), pojištění (=insurance), hlášení (=announcement), setkání (=meeting), produkce (=production), deklarace (=declaration), slib (=promise), politika (=politics), kariéra (=carrier), zločin (=crime)

A number of these nouns belong to the transitory type of nouns (see Section 6.2.3.2.1, "The basic approach to the valency of nouns"), for which it is often difficult to decide whether they refer to the event itself or rather to its result.

While the event use requires the valency frame parallel to the one of the corresponding verb, the result/affected object use is assigned a reduced valency frame (i.e. reduced in comparison to the valency frame of the verb). Sometimes, it is difficult to determine the extent of the reduction.

## Cf.:

- the following valency frames of the noun práce (=work):
- $\operatorname{ACT}(.2 ; . \mathrm{u})$ práce restaurátorỉ je zdařilá (=lit. work (of) restaurateurs is successful) (non-event use)
- $\operatorname{ACT}(.2$, u) $\operatorname{PAT}(\mathrm{na}+6)$ práce laboranta na experimentech (=lit. work (of) laboratory_technician on experiments) (event use)
- $\operatorname{ACT}(.2, . u) \operatorname{PAT}(\mathrm{s}+7)$
práce laboranta s materiálem (=work (of) laboratory_technician with material)
(event use)
- valency frames for the noun žádost (=request/application):
- $\operatorname{ACT}(.2 ; \mathrm{od}+2 ; \mathrm{u}) \operatorname{PAT}(\mathrm{na}+4)$
žádost na výstavbu stanice (=lit. application for building (of) station)
(non-event use)
- $\operatorname{ACT}(.2, . \mathrm{u}) \operatorname{PAT}(\mathrm{o}+4$;.f;aby[.v];jestli[.v]) ?ADDR(.3)
žádosti zahraničnich výrobců o vývoz výrobků do Kanady, žádost rodičů, aby matrikářka zfalšovala rodný list, jeho žádost o adopci (=lit. application (of) foreign producers for export (of) products to Canada, request (of) parents so_that registrar forgelfalsify birth certificate, his application for adoption)
(event use)
- valency frames for the noun informace (=information):
- ? ACT(.2,.u) PAT(o+6;zda[.v];jestli[.v];že[.v]) ?ORIG(od+2;z+2)
(report) informace V. Klause o rozhodnutí rady, informace Útvaru architekta, podle našich informací z vlády, informace o městském právu (=lit. information (of/by) V. Klaus about decision (of) council), information (of/by) ÚA, according_to our information from Government, information about municipal law)
(non-event use)
- ? $\mathrm{ACT}(.2 ; \mathrm{od}+2 ; \mathrm{u}) \operatorname{PAT}(\mathrm{o}+6 ; \mathrm{c})$ ? $\operatorname{ADDR}(.3)$
(to inform) informace, jak měnit podobu, informace, že Bagdád udržuje kontakty, podle informací LN (=lit. information how to_change form, information that Bagdad keeps contacts, according_to information of $L N$ )
(event use)
- valency frames for the noun setkání (=meeting):
- ? $\mathrm{ACT}(.2, \mathrm{u})$ ? PAT(s+7)
(social gathering; negotiation) slavnostní setkání spisovatelů v Praze, účastníci setkání ocenili přinos (=lit. ceremonial gathering (of) authors in Prague, members (of) gathering appreciated contribution)
(non-event use)
- $\operatorname{ACT}(.2, . u) \operatorname{PAT}(s+7)$
(to meet) setkání premiéra s G. Adamsem, setkání premiérů Mad’arska a Slovenska, nová setkání mezi členy komise (=lit. meeting (of) prime_minister with G. Adams, meeting (of) prime_ministers (of) Hungary and Slovakia, new meetings between members (of) committee)
(event use)
Creator of a product (understood as the result of an event). The creator of a product is assigned the Actor functor in the valency frame of a noun referring to the product (understood as the result of an event; the position of the creator is parallel to the one of the Actor with a verb). Notice, however, that, as for the names of intellectual products (i.e.artefacts; see Section 6.2.3.2.4.7, "Valency frames of nouns: names of intellectual products (artefacts)"), the creator is not considered a valency modification but rather an (optional) adjunct with the AUTH functor. Cf.:
- valency frame for one of the meanings of the noun výrobek (=product):
- ? $\operatorname{ACT}(.2, \mathrm{u}) ?$ ORIG( $\mathrm{z}+2)$ výrobky z drůbeže (=lit. products from poultry)
- valency frame for one of the meanings of the noun publikace (=publication):
- ?PAT(0+6)
obrazová publikace o Praze.PAT od prof. Dvořáka.AUTH (=lit. pictorial publication about Prague by prof. Dvořák)
!!! As for the nouns referring to the result of an event or the affected object, the subsequent check on the way the valency of verbal nouns is represented in the tectogrammatical trees took place only in the case of verbal nouns (ending with -ní or -tí). As for other types of nouns referring to the result of an event or the affected object, it cannot be guaranteed that the functors were assigned to the modifications correctly. For more details see Section 6.2.4, "Representing valency in the tectogrammatical trees".


### 6.2.3.2.4.3. Valency frames of agent nouns

Agent nouns are derived from verbs by means of the lexical derivation. Examples:
doručovatel (=postman, lit. deliverer), dirigent, divák (=viewer/spectator), učitel (=teacher), předseda (=chair), zájemce ( $=$ interested person), majitel (=owner), analyzátor (=analyser), ochránce (=protector), velitel (=commander), obchodnik (=tradesman/seller/dealer), obhájce (=defender/attorney), volič (=voter)

As a result of the lexical derivation, the Actor absorption often takes place (see Section 6.2.3.2.1.1, "Role absorption"). Unlike their base verbs, agent nouns lack the Actor position in their valency frames.

Different meanings (uses) of agent nouns are distinguished by assigning them different valency frames:

- in most event uses, the agent noun takes over the valency modifications of its base verb (except for the Actor; usually, it is the Patient). Agent nouns often refer to permanent characteristics (profession, occupation, function); in such cases, the agent noun does not require any valency modifications, its valency frame is specified as EMPTY. Cf.:
- the following valency frames for the noun doručovatel (=postman, lit. deliverer):
- $\operatorname{PAT}(.2 ; . \mathrm{u})$ ? $\operatorname{ADDR}(.3)$ doručovatel čerstvé pizzy.PAT (=the_person_who_delivers fresh pizza)
- EMPTY poštovní doručovatel (=postman, lit. post deliverer)
- valency frames of the noun dirigent (=conductor):
- PAT(.2;.u)
dirigent včerejšiho koncertu.PAT (=lit. conductor (of) yesterday's concert)
- EMPTY
dirigent čs. rozhlasu.APP (=lit. conductor (of) Czechoslovak radio)
- valency frames of the noun učitel (=teacher):
- $\operatorname{PAT}(.2 ; . \mathbf{u}) \operatorname{ADDR}(.2 ; . \mathbf{u})$

```
učitelé neslyšicich.ADDR (=lit. teachers (of) (the) hearing-impaired)
učitel hudby.PAT (=lit. teacher (of) music)
- EMPTY
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učitel základní školy.APP (=lit. teacher (of) primary school)

- with certain agent nouns, especially those that do not refer to professions, it is hard to determine whether they refer to a permanent characteristic or rather to a process of doing something; these are usually assigned only one valency frame (with an optional Patient). Cf.:
- valency frame for one of the meanings of the noun divák (=spectator/viewer):
- ? PPAT(.2;.u)

> divák thrilleru.РАТ (=lit. viewer (of) thriller)
diváci čs. televize.APP (=lit. viewers (of) Czech television)
diváci u obrazovek.LOC (=lit. viewers at TV_sets)

- valency frame for one of the meanings of the noun předseda (=chairperson):
- ? PPAT(.2;.u)

$$
\begin{aligned}
& \text { předseda dnešni schůze.PAT (=lit. chair (of) today's meeting) } \\
& \text { předseda parlamentu.APP (=lit. chair (of) Parliament) }
\end{aligned}
$$

- for some agent nouns, further modification is obligatory in both uses (i.e. when it refers to a process as well as when it refers to a permanent characteristic). Such agent nouns only have one valency frame (where the Patient is obligatory). Cf.:
- valency frame for one of the meanings of the noun žadatel (=applicant):
- $\quad \operatorname{PAT}(0+4)$
žadatel o telefon.PAT (=lit. applicant for telephone)
- valency frame for one of the meanings of the noun majitel (=owner):
- $\operatorname{PAT}(.2 ; . \mathrm{u})$
majitel firmy.PAT (=lit. owner (of) company)
- agent nouns derived from one-argument verbs (those having only the Actor) are not modified by any other modifications, their valency frame is empty. An example is cestovatel ( $=$ traveller).
!!! There was no subsequent check on whether the valency of agent nouns is represented correctly in the tectogrammatical trees. Therefore, it cannot be guaranteed that the functors were assigned to the modifications correctly. For more details see Section 6.2.4, "Representing valency in the tectogrammatical trees".


### 6.2.3.2.4.4. Valency frames of nouns: names of places of action

Names of places of action are usually derived nouns. Most of them are assigned an empty valency frame: hřiště (=playground, i.e. the place for playing), hvězdárna (=observatory, i.e. the place from which you can observe stars (hvězdy)), šatna (=cloackroom/changing room, i.e. the place where you change/leave your clothes (šaty)).

Deverbal nouns referring to places are nouns derived by means of the lexical derivation, which leads to the "locative" adjunct absorption (see Section 6.2.3.2.1.1, "Role absorption"). Lexical derivation leads to a significant reduction in the valency frame of the base verb - the derived nouns often lose all valency modifications found with their base verbs. Some deverbal nouns (referring to places) derived from transitive verbs keep the Patient position. Examples:
sušárna (=drying chamber/room), výdejna (=issuing office), pražírna (=(coffee-)roasting plant), čekárna (=waiting room), prodejna (=shop, i.e. selling place), čistírna (=cleaners), tavírna (=smelting plant), válcovna (=rolling mill), zkušebna (=rehearsal room/testing laboratory)

Cf:

- valency frame for one of the meanings of the noun sušárna (=drying chamber/plant):
- ? PAT(.2;.u)
sušárna mléka.PAT (=lit. drying_place (of) milk; i.e. factory producing powdered milk)
- valency frame of the noun výdejna (=issuing office):
- ? PAT(.2;.u) výdejna obnošeného šatstva.PAT (=lit. issuing_place (of) worn clothes)
- valency frame for one of the meanings of the noun pražirna (=coffee-roasting plant):
- ? PAT(.2;.u) známá pražírna kávy.PAT (=lit. famous coffee-roasting plant)

Also valency modifications of intransitive verbs may be preserved in the valency frames of deverbal nouns (referring to places). Cf.:

- valency frame for one of the meanings of the noun čekárna (=waiting room):
- ? PAT(na+4)
čekárna na domov.PAT (= lit. waiting_room for home) nádražní čekárna (=lit. station waiting_room)
- puisobiště umělce.ACT (=lit. sphere_of_activity (of) artist), rejdiště zlodějů.ACT (=lit. haunt (of) thieves)
!!! This type has not been found in PDT.
!!! There was no subsequent check on whether the valency of names of places of action is represented correctly. Therefore, it cannot be guaranteed that the functors were assigned to the modifications correctly. For more details see Section 6.2.4, "Representing valency in the tectogrammatical trees".


### 6.2.3.2.4.5. Valency frames of nouns: names of instruments

Names of instruments are usually derived nouns. Most of them are assigned an empty valency frame (and therefore are not part of the valency lexicon), e.g.: otvirák (=opener), šroubovák (=screwdriver).

Deverbal nouns referring to instruments, tools or means are nouns derived by means of the lexical derivation, which leads to the "means" adjunct absorption (see Section 6.2.3.2.1.1, "Role absorption"). Lexical derivation leads to a significant reduction in the valency frame of the base verb - the derived nouns often lose all valency modifications found with their base verbs. Only some deverbal names of instruments, derived from transitive verbs, keep the Patient position. Examples:
čistička (=lit. cleaner), přijímač (=receiver), vysilač (=transmitter), páčidlo (=lever), lapač (=catcher), tahač (=tractor/tug), tiskárna (=printer), sběrač (=collector)

Cf.:

- valency frame for one of the meanings of the noun prijímač (=receiver):
- ? PAT(.2;.u)
přijímačzvuku.PAT (=lit. receiver (of) sound)
- valency frame for one of the meanings of the noun páčidlo (=lever):
- ? PAT(.2;.u)
páčidlo něčeho.РAT jiného (=lit. crowbar/lever (of) something else)
!!! There was no subsequent check on whether the valency of names of instruments (used for carrying out an activity) is represented correctly. Therefore, it cannot be guaranteed that the functors were assigned to the modifications correctly. For more details see Section 6.2.4, "Representing valency in the tectogrammatical trees".


### 6.2.3.2.4.6. Valency frames of nouns referring to blood (family) relations

Nouns referring to blood relations (and other nouns similar in meaning) are usually non-derived. Examples:
otec (=father), matka (=mother), dcera (=daughter), přitel (=friend), partner (=partner), manžel (=husband), dédic (=heir), člen (=member)

Expressing the relevant relation is considered obligatory for these nouns. The appurtenance adjunct (APP) is obligatory for this type of nouns. Srov.:

- valency frame for one of the meanings of the noun otec (=father):
- $\operatorname{APP}(.2 ; . \mathrm{u})$
duchovní otec nové měny.APP (=lit. intellectual/spiritual father of new currency)
- valency frame for one of the meanings of the noun manžel (=husband):
- $\operatorname{APP}(.2 ; . \mathrm{u})$
manžel slavné spisovatelky.APP (=lit. husband (of) famous writer)
- valency frame for one of the meanings of the noun pritel (=friend):
- $\operatorname{APP}(.2 ; . \mathrm{u})$ přitel ministra..APP (=lit. friend (of) minister)
- valency frame for one of the meanings of the noun partner (=partner):
- $\operatorname{APP}(.2 ; . \mathrm{u})$
náš.APP partner v oblasti energie.REG (=lit. our partner in field (of) energy)
!!! The valency lexicon only contains those nouns referring to blood (family) relations that meet the relevant conditions (see Section 6.2.2.4, "Valency lexicon"). There was no subsequent check on whether the valency of nouns referring to blood (family) relations is represented correctly. Therefore,
it cannot be guaranteed that the APP functor was assigned to the relevant modifications correctly. For more details see Section 6.2.4, "Representing valency in the tectogrammatical trees".


### 6.2.3.2.4.7. Valency frames of nouns: names of intellectual products (artefacts)

Names (nouns) of intellectual products are (both derived and non-derived) nouns denoting products of scientific or artistic work (in the broad sense of the word), for example:
socha (=sculpture), obraz (=painting), román (=novel), film (=film), opera (=opera), balada (=ballad), báseň (=poem), monografie (=monograph), memoáry (=memoirs), partitura (=score), pomniček (=memorial), publikace (=publication/book), stavba (=building), tvorba (=work).

The valency frames of nouns referring to artefacts are either empty or there is an optional Patient in the frame, which corresponds to the depicted object (topic). The author of an artefact is assigned the AUTH functor (see Section 6.2.3.2.3.1, "Borderline between the Actor and AUTH"). Cf.:

- valency frame for one of the meanings of the noun bajka (=fable):
? PAT(o+6)
Ezopovy.AUTH bajky o myši.PAT (=lit. Aesop's fables about mouse)
- valency frame for one of the meanings of the noun pomniček (=memorial):

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?PAT(.2,3,.u)
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pomniček France Kafky.PAT (=memorial (of) Franz Kafka)
od sochaře Róny.AUTH (=lit. by sculptor Rona)
NB! For deverbal nouns like: tvorba (=work), publikace (=publication), stavba (=building) it is necessary to distinguish the contexts in which these nouns refer to activities from the contexts in which they refer to the results of those activities, i.e. to artefacts. These meanings are distinguished by assigning the nouns different valency frames: in the first case, the nouns are assigned valency frames that correspond to the valency frames of their base verbs; in the second case, they may have an optional Patient and the author is assigned the AUTH functor. Cf.:

- the following meanings of the noun publikace (=publication):
- publikace výsledků.PAT voleb (=lit. publication/publishing (of) results (of) election)

The valency frame:
АСТ(.2,.7,.u) PAT(.2,.u)
(event use)

- obrazová publikace o Praze.PAT (=lit. pictorial publication about Prague)

The valency frame:
?PAT(o+6)
(artefact)

- meanings of the noun tvorba (=work/creation):
- tvorba obchodního plánu.PAT (=lit. constitution (of) business plan; i.e. business planning)

The valency frame:
$\operatorname{ACT}(.2,7$, ,u) $\operatorname{PAT}(.2$, u)
(event use)

- Smetanova.AUTH tvorba (=Smetana's works)

The valency frame:
EMPTY
(artefact)
NB! Names of artefacts are to be distinguished from names of the results of events (see Section 6.2.3.2.4.2, "Valency frames of nouns referring to the result of an event or the affected object"). The author of a product is assigned the Actor functor in the case of nouns referring to the results of events. For more details see Section 6.2.3.2.3.1, "Borderline between the Actor and AUTH".
!!! There was no subsequent check on whether the valency of nouns referring to artefacts is represented correctly. Therefore, it cannot be guaranteed that the functors were assigned to the modifications correctly. For more details see Section 6.2.4, "Representing valency in the tectogrammatical trees".

### 6.2.3.2.4.8. Valency frames of nouns with the "container" meaning

Nouns with the "container" meaning are usually non-derived. However, also deverbal nouns can get the "container" meaning (as a result of substantivization). Examples:
dostatek (=abundance), počet (=number/quantity), dávka (=portion/amount/dose), skupina (=group), polovina (=half), balení (=packaging), část (=part), stádo (=herd/flock), většina (=majority)

Nouns with the "container" meaning have the MAT modification in their valency frames, which is either optional or obligatory. Cf.:

- valency frame for one of the meanings of the noun baleni (=packaging):
- ?MAT(.2)
balení másla ve fólii, dárkové balení vina (=lit. packet (of) butter in foil, gift-wrapping (of) wine)
- valency frame for one of the meanings of the noun polovina (=half):
- ? MAT(.2,.u)
první polovina letošního roku.MAT (=lit. first half (of) this year)
- valency frame for one of the meanings of the noun stádo (=herd):
- ?MAT(.2) dvacetičlenné stádo slonů.MAT (=lit. twenty-member herd (of) elephants)
!!! The valency lexicon only contains those nouns with the container meaning that meet the relevant conditions (for being included in the lexicon; see Section 6.2.2.4, "Valency lexicon"). There was no subsequent check on whether the valency of nouns with the container meaning is represented correctly. Therefore, it cannot be guaranteed that the MAT functor was assigned to the relevant modifications correctly. For more details see Section 6.2.4, "Representing valency in the tectogrammatical trees".


### 6.2.3.2.4.9. Valency frames of nouns referring to personal qualities and properties of things

Nouns referring to various physical, mathematical and other properties of things or personal qualities are usually deadjectival. Examples:
věrnost (=fidelity), hrdost (=pride), délka (=length), klackovitost (=loutishness), malichernost (=pettiness), mazanost (=cunning), možnost (=possibility), schopnost (=ability)

The bearer of a quality or property is taken to occupy a valency position - regardless of whether the noun is deverbal or not - and is assigned either the ACT or the APP functor:

- those nouns that allow for the following paraphrase assign the Actor role to the bearer of the given property or quality.

Cf.:
- valency frame for one of the meanings of the noun verrnost (=fidelity):
- $\operatorname{ACT}(.2 ; . \mathrm{u}) \operatorname{PAT}(.3)$ věrnost jistým hodnotám (=lit. fidelity (to) certain values)
- valency frame for one of the meanings of the noun hrdost (=pride):
- $\operatorname{ACT}(.2 ; . \mathrm{u})$ ? PAT(na+4;že[.v])
hrdost na historii (=lit. pride in history)
- valency frame for one of the meanings of the noun schopnost (=ability):
- $\operatorname{ACT}(.2 ; . \mathrm{u}) \operatorname{PAT}(. f, .2, \mathrm{k}+3, \mathrm{na}+4)$
schopnost některých.ACT z nás vytvořit.PAT dokonalejší svět (=lit. ability (of) some of us (to) create better world), schopnost podnikatelů.ACT nabizet.PAT služby (=lit. ability (of) businessmen (to) offer service), jeho.ACT schopnost vcítěni.PAT (=lit. his ability (of) empathy), schopnost sliznice.АСТ $k$ adaptaci.РAT (=lit. ability (of) mucous_membrane to adaptation), schopnost týmové práce.PAT (=lit. ability (of) team work)
- those nouns that allow for the following paraphrase assign the bearer of the given property or quality the APP functor.
- délka vazby (=lit. length (of) detention) = vazba má délku (=lit. detention has length)

Cf.:

- valency frame for one of the meanings of the noun délka (=length):
- $\operatorname{APP}(.2 ; . \mathrm{u})$
délka vazby, délka dovolené (=lit. length (of) detention, length (of) holiday)
!!! The valency lexicon only contains those nouns referring to properties or qualities that meet the relevant conditions (for being included; see Section 6.2.2.4, "Valency lexicon"). There was no subsequent check on whether the valency of nouns referring to personal qualities and properties of things is represented correctly. Therefore, it cannot be guaranteed that the functors were assigned to the modifications correctly. For more details see Section 6.2.4, "Representing valency in the tectogrammatical trees".


### 6.2.3.3. Valency of adjectives

!!! Only those adjectives are included in the valency lexicon that occured in the analyzed data and from these only:

- adjectives that are modified by at least one of the verbal arguments: ACT, PAT, ADDR, ORIG and EFF.

The valency lexicon includes also adverbs that have (following the rules in Chapter 4, Tectogrammatical lemma (t-lemma)) the t-lemma of their base adjectives and which have one of the values available for semantic adjectives in their sempos attribute (see Section 5.3.1, "The sempos attribute").

When determining the valency frames of adjectives, two basic classes of adjectives are distinguished:

- deverbal adjectives referring to events (see Section 6.2.3.3.1, "Valency frames of deverbal adjectives referring to events"),
- other adjectives (see Section 6.2.3.3.2, "Valency frames of (all the) other adjectives").
!!! There was no subsequent check on whether the valency of adjectives is represented correctly. Therefore, it cannot be guaranteed that the functors were assigned to the modifications correctly. For more details see Section 6.2.4, "Representing valency in the tectogrammatical trees".
!!! The value of the sempos grammateme of an adjective referring to events is one of the values available for semantic adjectives. In the future, the t-lemma assigned to adjectives referring to events or states will be identical to the $t$-lemma of their base verbs and the value of their sempos grammateme will be v (see Section 5.1, "Syntactic and lexical derivation").


### 6.2.3.3.1. Valency frames of deverbal adjectives referring to events

Deverbal adjectives derived from passive participles and transgressives are results of the syntactic derivation; the meaning of such an adjective is identical to the meaning of its base verb: it refers to an event.

Deverbal adjectives essentially preserve the valency frames of their base verbs - except for some systematic changes:

- adjectives derived from the active forms (of the type dělající, přišedš̌) lack the Actor position because this role is expressed by the governing noun. Cf.:
- Muž.ACT pracuje se dřevem.PAT (=lit. Man works with wood)

The valency frame for the given meaning of the verb pracovat (=work):
$\operatorname{ACT}(.1) \operatorname{PAT}(\mathrm{s}+7)$

- muž pracující se dřevem.PAT (=lit. man working with wood)

The valency frame for the given meaning of the adjective pracujici (=working):

```
PAT(s+7)
```

- adjectives derived from the passive forms (of the type udělaný) lack either the Patient, Addresse or Effect position depending on which argument becomes the subject in passive, since this role is expressed by the governing noun. Cf.:
- Muž.ACT vyrobil hračku. PAT ze dřeva.ORIG (=lit. Man made toy from wood)

The valency frame for the given meaning of the verb vyrobit (=make):
ACT(.1) PAT(.4) ?ORIG(z+2)

- hračka vyrobená mužem.ACT ze dřeva.ORIG (=lit. toy made (by) man from wood)

The valency frame for the given meaning of the adjective vyrobeny (=made):

## ACT(.7) ?ORIG(z+2)

Adjectives derived from past participles (of the type přilehlý, prošly) belong to the class of all the other adjectives (see Section 6.2.3.3.2, "Valency frames of (all the) other adjectives").

NB! Valency frames of deverbal adjectives are derived from the valency frames of their base verbs; therefore, the argument shifting principle does not apply here (for a discussion on argument shifting, see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)").

### 6.2.3.3.2. Valency frames of (all the) other adjectives

!!! Valency frames of adjectives not referring to events are still a matter of debate. So far, only several partial conclusions can be made.

The following can be stated:

- it seems that, unlike nouns, adjectives do not require introducing new functors. Verbal arguments (functors) seem to cover all cases.
- the Actor position is lacking (the meaning is expressed by the governing noun)
- there is no argument shifting in the valency frames of adjectives (not referring to events; for a discussion on the argument shifting, see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)").
- the main criteria for determining the valency frames of adjectives is the semantic obligatoriness of the modification and the government properties of the adjective.
- often, the valency modifications get the generalized meaning (see Section 6.2.4.1, "General arguments and unspecified Actors"). These cases are not considered to have a different meaning - they are not assigned a different valency frame. Cf.:
- projev srozumitelný každému.PAT (=lit. speech comprehensible (for) everyone)
- srozumitelný projev (=lit. intelligible/comprehensible speech)
- valency frame for the adjective srozumitelný (=comprehensible):

```
?PAT(.3)
```

Examples of valency frames of adjectives:

- valency frame of the adjective znalý (=knowing):
? PAT(.2)
znalý turistického ruchu (=lit. knowing/expert_in tourism)
- valency frame of the adjective rozdilný (=different):

```
?PAT(od+2)
```

nepřiliš rozdílný od chování skupin (=lit. not_very different from behavior (of) groups)

- valency frame of the adjective sympatický (=nice/likeable/appealing):
?PAT(.3)
Moskvé nesympatická nabidka, jim sympatický program (=lit. (to) Moscow unappealing offer, (to) them appealing program)
sympatický hlas, projev (=lit. nice/likeable voice, speech)
- valency frame of the adjective vděčný (=thankful):

```
PAT(za+4) ADDR(.3)
```

vděčný Čechům za rozšíření ondatry (=lit. thankful (to) Czechs for spreading muskrat)

- valency frame of the adjective vhodný (=suitable):
- ?PAT(k+3,pro+4,na+4)
vhodný k bezlepkové dietě (=lit. suitable for gluten-free diet), vhodný pro tuto funkci (lit. suit-
able/fitting for this function)
!!! The problem regarding the obligatoriness or optionality of adjectival valency modifications has not been satisfactorily solved yet. Therefore, there is a high degree of inconsistency in representing the obligatoriness (optionality) of modifications in the valency frames of adjectives.


### 6.2.3.4. Valency of adverbs

!!! Only those adverbs are included in the valency lexicon that occured in the analyzed data and from these only:

- those adverbs that are modified by at least one of the verbal arguments: ACT, PAT, ADDR, ORIG and EFF.
- semantic adverbs that govern an idiomatic expression (i.e. those that are modified by a node with the DPHR functor; see Section 6.8.1, "Non-verbal idioms").

Deadjectival adverbs which (following the rules in Section 5.1, "Syntactic and lexical derivation") have one of the values available for semantic adjectives in their sempos grammateme and the t-lemma of which is identical to the one of their base adjective. The valency frames of these deadjectival adverbs are identical to the valency frames of their base adjectives. There are only few non-derived adverbs (with the adv value in the sempos grammateme) that exhibit some sort of valency.

The following can be stated regarding the valency properties of non-derived adverbs:

- it seems that adverbs do not require introducing new functors. Verbal modification functors seem to cover all the cases.
- there is no argument shifting in the valency frames of adverbs (for a discussion of the argument shifting, see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)").
- the main criteria for determining the valency frames of adverbs is the semantic obligatoriness of their modifications and the government properties of the adverb.

An example of a valency frame of a non-derived adverb:

- valency frame for one of the meanings of the semantic adverb blizko (=near):

```
PAT(.3,k+3)
je bliž umění (=(he) is nearer (to) art)
```

NB! Also frozen verbal forms belong to the class of semantic adverbs (see Section 6.5.1, "Dependent verbal clauses without a finite verb form"). These frozen forms usually keep something from their original valency properties. Cf.:

- Mluví o jeho zálibách.PAT (=lit. (He) talks about his hobbies/likes)

The valency frame for the given meaning of the verb mluvit (=speak/talk):
$\operatorname{ACT}(.1) \operatorname{PAT}(\mathrm{o}+6 ; . \mathrm{s})$ ? $\operatorname{ADDR}(\mathrm{k}+3 ; \mathrm{na}+4)$

- nemluvě o jeho zálibách.PAT (=lit. not_mentioning/talking about his hobbies)

The valency frame for the given meaning of the semantic adverb nemluvě (=not_to_mention):

$$
\operatorname{PAT}(\mathrm{o}+6)(. \sim)
$$

!!! The issues regarding the obligatoriness (optionality) of adverbial valency modifications has not been satisfactorily solved yet. Therefore, there is a high degree of inconsistency in representing the obligatoriness (optionality) in the valency frames of adverbs.

### 6.2.4. Representing valency in the tectogrammatical trees

In this section, it is described how - on the basis of their valency frames - the valency of individual nodes is represented in the tectogrammatical trees.

The valency of a node is represented in a tectogrammatical tree in the following way:

- by assigning the node an adequate valency frame (from the valency lexicon). The val_frame.rf attribute contains the identifier assigned to the valency frame corresponding to the given meaning of the given word.
- by filling in the valency frame in the tectogrammatical tree. Filling in the valency frame in a tectogrammatical tree means assigning functors to dependent valency modifications (according to the assigned valency frame) and generating new nodes for those obligatory modifications that are not present at the surface level of the sentence.

Nodes for non-expressed optional valency modifications (i.e. those absent at the surface level) are not added (newly generated) to the structure (see Section 6.2.4.1, "General arguments and unspecified Actors"). The only reason for adding a node for an absent optional argument into the structure is to enable the proper representation of the (grammatical) coreference relations.

Valency, as understood on the tectogrammatical level, is a matter of meaning; therefore, valency modifications do not have to be expressed (nor expressible) at the surface level of a sentence. The rules for adding a new node - for an obligatory modification - into a tectogrammatical tree are described mainly in Section 6.12.2, "Ellipsis of the dependent element".

In this section, only two specific cases (when a valency modification is not expressed) are discussed :

- the case when an argument is not expressed because it has a generalized meaning or when the Actor is unspecified (see Section 6.2.4.1, "General arguments and unspecified Actors"),
- the case when a valency modification is not expressed because reciprocity is involved (see Section 6.2.4.2, "Reciprocity").

The last section (Section 6.2.4.3, "Some directions for representing the valency of individual complex nodes") summarizes the rules for valency annotation in the tectogrammatical trees.
!!! The present state of valency representation in PDT. Not every valency behavior is represented properly in the tree structures. Valency is represented properly for the following groups of complex nodes:

- for all semantic verbs,
- for all semantic verbal nouns (ending with -ní and -tí) that are included in the valency lexicon.
- for all semantic nouns that represent the nominal part of a complex predicate (i.e. for all semantic nouns with the CPHR functor).
- for all semantic adverbs included in the valency lexicon

The groups of nodes just mentioned are called "checked nodes" (meaning: with respect to the representation of their valency); other nodes are called "unchecked nodes".
!!! For the checked nodes it can be guaranteed that:

- they are assigned the appropriate valency frame. The value in the val_frame.rf attribute is valid (which might not be the case with unchecked nodes).
- their valency frames are filled in, i.e. the dependent modifications are assigned the appropriate functors and new nodes are generated if necessary (i.e. nodes for non-expressed obligatory modifications). See the rules in Section 6.12.2, "Ellipsis of the dependent element".

As for newly established nodes for obligatory modifications of nouns and adverbs, often, the correct t -lemma substitute was not chosen (i.e. the one corresponding to the given type of coreference; see Section 6.12.2.1, "Ellipsis of an obligatory modification"). Newly established nodes were assigned the provisional t-lemma substitute \#Gen (the t-lemma used for general arguments; see Section 6.2.4.1, "General arguments and unspecified Actors"). The \#Gen t-lemma assigned to valency modifications of nouns and adverbs signals that the correct value has not been decided yet; generally, the correct t-lemma can be any of the following: \#Gen, \#PersPron, \#Cor or \#QCor. Nodes that have not been assigned the appropriate t-lemma yet and still have the \#Gen t-lemma, may also lack the proper representation of their possible coreference relations. If a newly established node for an obligatory valency modification of a noun or adverb has a t-lemma other than \#Gen, it means that the value of the t-lemma has already been decided (and assigned properly) and their coreference relations (if any) are represented properly as well.
!!! As for the unchecked nodes, it cannot be guaranteed that their valency is represented properly. It can be stated:

- as for unchecked nodes, the valency lexicon may but need not contain their valency frames (they might not be constituted).
- the unchecked nodes may but need not have their val_frame. rf attribute filled in. If the attribute is filled, its value is always only provisional.
- the unchecked nodes may have arguments as their dependent nodes. It could happen that - when determining the valency frames of such nodes - the original value of an argument was changed to another or it was decided that the valency frame is empty (EMPTY). However, the possible changes are not necessarily reflected in the tectogrammatical trees. The functor assigned to a node dependent on an unchecked node has always only a provisional value. The same applies to newly established nodes dependent on the unchecked nodes.
- as for newly established nodes dependent on the unchecked nodes, all values of all attributes are provisional (esp. their t-lemmas and functors); even the appropriateness of adding the node into the structure might be questioned. After a thorough check on valency representation in PDT, the node need not be present in the tree at all.


### 6.2.4.1. General arguments and unspecified Actors

A summary of different cases of valency modification ellipses is given in Section 6.12.2, "Ellipsis of the dependent element".

The present section provides a discussion of certain specific cases of valency modifications missing at the surface level (the semantic obligatoriness of these modification in fact enables the ellipsis). These are:

- general arguments.
- unspecified Actors.

General arguments. The term general argument is used for a modification (absent at the surface level) that does not refer to a concrete entity (which is the case with common ellipses) but it is rather a type of modification usual in the given position. The lexical content of the argument has to be the usual one for the given verb (noun, adjective) in the given position in order for the argument to become general. The fact that a modification has such a general meaning allows for omitting it in the surface structure.

In a tectogrammatical tree, the general argument is assigned a newly established node with the \#Gen t-lemma. General arguments refer to "entities usual or typical in the given situation"; therefore, it is impossible to indicate any coreference relations in which the general argument might take part.

Both obligatory and optional arguments can become general. If an obligatory argument is absent at the surface level and it is not the case of common ellipsis (nor is it an unspecified Actor; see further) it means that we deal with a general argument.

General obligatory arguments, not present at the surface, are always assigned a newly established node with the \#Gen functor in the tree.

Examples of general arguments:

- general Actor:
- Domy se stavějí z cihel. \{\#Gen.ACT\} (=Houses are built from bricks; lit. Houses REFL build from bricks)

The valency frame for the given meaning of the verb stavět (=build):
ACT(.1) PAT(.4) ?ORIG(z+2)

## Cf. Fig. 6.1.

A typical surface form of a structure with the general Actor is the reflexive passive. If the periphrastic passive is used instead, it may signal the presence of the general Actor but it also may be the case that the speaker has a specific Actor in mind but the Actor is omitted as it is recoverable from the context. In such cases the t-lemma assigned to the newly established node is \#PersPron (and the coreferential relations are indicated in the tree).

- general Patient:
- V téhle troubě se mi dobře peče. \{\#Gen.PAT\} (=I can bake easily in this oven; lit. In this oven REFL me well bakes.)

The valency frame for the given meaning of the verb péci (=bake):
ACT(.1) PAT(.4) ?ORIG(z+2)

- general Addressee:
- Jana prodává boty u Bati. \{\#Gen.ADDR\} (=Jana sells shoes at Bata)

The valency frame for the given meaning of the verb prodávat (=sell):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{ADDR}(.3)$
Cf. Fig. 6.2.

- general Effect:
- Napiš mu o tom. \{\#Gen.EFF\} (=Write him about it)

The valency frame for the given meaning of the verb napsat (=write): $\operatorname{ACT}(.1)$ ? $\operatorname{PAT}(\mathrm{o}+6)$ ? $\operatorname{ADDR}(.3) \operatorname{EFF}(.4 ;$ že[.v];aby[.v];.s)

- general Origo:
- Učinil předčasný závěr. \{\#Gen.ORIG\} (=He made a premature conclusion)

The valency frame for the given meaning of the verb učinit (=make):
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{$ závěr,shrnutí,...\}.4) ORIG(z+2)
Figure 6.1. General argument


Domy se stavějí z cihel. (=lit. Houses REFL build from bricks)
Figure 6.2. General argument


Jana prodává boty u Bati. (=lit. Jana sells shoes at Bata)
!!! If an optional argument is absent at the surface level the reason could be its optionality - we are not necessarily dealing with a general argument. However, there are no reliable criteria for distinguishing these two cases yet. For this reason, if an optional argument is absent at the surface level we consider this to be a consequence of its optionality and no new nodes are added to the structure. The only reason for adding a node for an absent optional argument into the structure is to enable the proper representation of the (grammatical) coreference relations.
!!! In principle, all valency modifications may become general. Nevertheless, we only talk about general arguments (and not general obligatory free modifications) so far. Obligatory free modifications absent at the surface level are assigned a newly established node with the \#Obl fm t-lemma (see also Section 6.12.2.1.3, "Ellipsis of an obligatory free modification (t-lemma substitutes \#Oblfm and \#Rcp)"); the question whether they have the general meaning in some cases is left open.
!!! NB! The \#Gen t-lemma is assigned correctly only in the case of (ad)verbal modifications. As for newly established nodes for arguments of nouns, adjectives and adverbs, the correct t-lemma substitute often has not been chosen (i.e. the one corresponding to the given type of coreference relations; see Section 6.12.2.1, "Ellipsis of an obligatory modification"). The provisional t-lemma assigned to these nodes is \#Gen. The \#Gen t-lemma assigned to valency modifications of nouns, adjectives and adverbs signals that the correct value has not been determined yet; generally, the correct t-lemma can be any of the following: \#Gen, \# PersPron, \#Cor or \#QCor. Nodes that have not been assigned the appropriate t-lemma yet and still have the \#Gen t-lemma, may also lack the proper representation of possible coreference relations.

Unspecified Actor. Apart from the cases of common ellipsis on the one hand and general arguments on the other, there is also the transitory case of so called unspecified Actor. This involves cases when a modification absent at the surface level denotes an entity more or less known from the context which is however not explicitely referred to. The entity corresponding to the non-expressed Actor cannot be precisely determined, the absent Actor refers rather to the preceding context than to a particular lexical unit; nevertheless, it is possible to specify the class of entities it refers to at least partially.

When determining whether the non-expressed Actor in question is unspecified or not, one can use the information provided by the form of the sentence. There are certain signals indicating that the nonexpressed argument is an unspecified Actor:

- typical surface form of the sentence:
- the governing verb agrees with the null subject in 3rd person plural animate.
- typically, a locative adverbial is present, providing certain information as to the identity of the entities (usually people) among which we may search for the Actor:

Na poště.LOC zavírají v šest hodin odpoledne (=lit. At post-office close.3pl. at six o'clock in_the_afternoon).

Tady.LOC dobře vaří (=lit. Here well cook.3pl.).

- the possibility to specify the referrent
- exclusion of the speaker from the class of possible Actors

The unspecified Actor is assigned a newly established node with the \#Unsp t-lemma in the tree. Neither the \#PersPron t-lemma (which has a clear anaphoric reference), nor the \#Gen t-lemma (which refers to typical referents) is assigned to unspecified Actors.

Examples:
Zmizení tohoto 700 kg těžkého lékařského přistroje hygienikům ohlásili 30. června letošního roku. \{\#Unsp.ACT\} (=lit. Disappearance (of) this 700 kg heavy medical apparatus to_hygienists announced.3pl.anim 30th June this year; i.e.: They announced that...) Fig. 6.3

Hlásili to v rozhlase. \{\#Unsp.ACT\} (=lit. Announced.3pl.anim it on radio) Fig. 6.4
(Co jste dělal mezitím? Začít tehdy samostatně režírovat na Barrandově bylo absolutně nemyslitelné.) Ale přijali mě do scénáristického oddělení. \{\#Unsp.ACT\} (= (What did you do in between? It was absolutely unthinkable for me to start doing my own films at Barrandov at that time.) But I was accepted to the scriptwriting department; lit. But accepted.3pl.anim me to scriptwriting department)

Vypnuli proud. \{\#Unsp.ACT\} (=lit. Switched_off.3pl.anim electricity)
Ukradli nám auto. \{\#Unsp.ACT\} (=lit. Stole.3pl.anim us car)
Cf. Fig. 6.3 and Fig. 6.4.
Figure 6.3. Unspecified Actor.


Zmizení tohoto 700 kg těžkého lékařského přistroje hygienikům ohlásili 30. června letošního roku. (=lit. Disappearing (of) this 700 kg heavy medical tool (to) hygienists (they) announced 30the June this year)

Figure 6.4. Unspecified Actor.


Hlásili to v rozhlase. (=lit. (They) announced it on radio)
!!! Apparently, any argument may be unspecified (also with nouns, adjectives and adverbs). However, it is not easy to propose criteria for distinguishing the cases when a node with the \#Gen t-lemma should be added to the structure from the cases when the appropriate $t$-lemma is \#Unsp and these from cases with exophoric coreference relations, i.e. cases when a node with the \#PersPron t-lemma should be added (see Section 9.3.1.3, "Exophora"). Only in the case of unspecified Actor the form of the sentence helps us; with all other arguments (and especially with nominal and adjectival arguments), the only lead is the possibility to specify the referent (as opposed to the cases of general arguments which lack this possibility). Due to these difficulties, only cases of unspecified Actors of verbs are indicated in the tectogramamtical trees.

Borderline between the general and unspecified Actor. Differences between general and unspecifed Actors are summarized in Table 6.2, "The borderline between general and unspecified Actor".

Table 6.2. The borderline between general and unspecified Actor

|  | Exclusion of the <br> speaker | Typical surface form <br> (of the sentence) | Specifying the referent |
| :--- | :--- | :--- | :--- |
| General Actor <br> (t_lemma=\#Gen) | we do not know | reflexive passive | all referents typical for a given situ- <br> ation |
| Unspecified Actor <br> (t_lemma=\#Unsp) | yes | the verb is in the 3pl an- <br> imate | the class of people (referents) is not <br> specified explicitely but it is pos- <br> sible to deduce a possible referent <br> from the context |

### 6.2.4.2. Reciprocity

!!! The rules for representing reciprocity have been changed many times and even the present version is probably not final. Reciprocity is not analyzed in a completely consistent way in the data. Nor are all the cases involving reciprocity identified. Reciprocity is not consistently represented especially in those cases where none of the valency modifications involved in the reciprocal relations is the Actor. These cases were not (unlike the cases involving Actors) checked after the first phase of the annotation.

The term reciprocity is used for the syntactic operation on valency frames that puts two different valency modifications (arguments or obligatory adjuncts) in a symmetric relation, which can be expressed in the following way:

- Jan a Marie se setkali. (=Jan and Marie met) = Jan se setkal s Marií a (zároveň) Marie se setkala s Janem. (=Jan met Marie and (simultaneously) Marie met Jan)

An important condition for reciprocity to be possible, the two valency modifications have to be homogeneous. For example, in the following case, the same paraphrase cannot be used:

- Pavel se setkal s nezájmem. (=lit. Pavel met indifference) $\neq$ Pavel se setkal s nezájmem a (zároven̆) nezájem se setkal s Pavlem. (=lit. Pavel met indifference and (simultanously) indifference met Pavel)

As a result of the presence of reciprocal relations in a sentence, one of the obligatory modification positions is lost at the surface level (usually the Patient position). Another position (usually the Actor position) is occupied by both modifications (standing in the reciprocal relation) at the same time. Semantically, however, they correspond to two different valency positions (usually these are the Actor and Patient positions). The form of the position containing the modifications in the reciprocal relation is:

- coordination.


## Cf.:

- Jan.ACTa Marie.ACT se potkali. (=Jan and Marie met each other)
$=\underline{\text { Jan.ACT potkal Marii.PATa (zároveň) Marie.ACT potkala } \underline{\text { Jana.PAT }} \text { (=Jan met Marie and }}$
(simultaneously) Marie met Jan)
- the noun phrase is in plural (or it has the plural semantics)

For example:
Dvojice se libala. (=The couple kissed)
Milenci se libali. (=The lovers kissed)

- the form $s+7$.

For example:
Jan s Marií se libali. (=lit. Jan with Marie REFL kissed)

- coordination inside the prepositional phrase mezi+7 (see Section 6.2.4.2.3, "Reciprocity with nouns").

For example:
$V$ pondělí se konala zajímavá diskuze mezi čtenáři a spisovateli o smyslu literatury. (=lit. On Monday took place interesting discussion between readers.INSTR and authors.INSTR on sense (of) literature)

### 6.2.4.2.1. Valency frames and reciprocity

Some verbal meanings allow for reciprocity, others do not. The basic condition for reciprocal relations to be established is the homogeneity condition on the relevant valency modifications. Cf.:

- valency frames of the verb setkat se (meet):
- $\operatorname{ACT}(.1) \operatorname{PAT}(\mathrm{s}+7)$
setkal se s prítelem (=he met with a friend)
- ACT(.1)PAT(s+7)
setkal se s potřebou (=lit. (he) encountered/met with need), s. se s nezájmem (=...with indifference), s. se s nepřátelstvím (=...with hostility)
!!! Not many valency frames (identical at first sight) are distinguished in this way. Most verb have only one valency frame, which is assigned both to the verbs with homogeneous and non-homogeneous valency modifications.

As for the verbs where there are two competing forms for the Patient argument, the accusative and the prepositional phrase $s+7$, two valency frames are distinguished - one with the prepositional phrase Patient ( $s+7$ ) (which has a potential reciprocal meaning) and one with the accusative Patient (which may get the reciprocal meaning only after the appropriate transformation). When the construction involves reciprocity, the verb is assigned the valency frame with the accusative Patient. Cf.:

- Pavel se viděl s Petrem. PATv divadle. (=lit. Pavel REFL saw.3sg with Petr in theater)

The valency frame:

$$
\operatorname{ACT}(.1) \operatorname{PAT}(\mathrm{s}+7)(.[\mathrm{se}])
$$

- Pavel vidèl Petra.PATv divadle. (=Pavel saw Petr in the theater)

The valency frame:
ACT(.1) PAT(.4,.2,že[.v],jak-2[.v],jestli[.v],zda[.v],.c)

- Pavel a Petr se vidëli v divadle. \{\#Rcp.PAT\} (=Pavel and Petr saw each other in the theater; lit. Pavel and Petr REFL saw...)

The valency frame:

```
ACT(.1) PAT(.4,.2,že[.v],jak-2[.v],jestli[.v],zda[.v],.c)
```

!!! The solution based on distinguishing two different valency frames (one with the Patient in the form of the prepositional phrase $s+7$, the other with the accusative Patient) is only temporary. It is necessary to consider again carefully the relations between the reciprocal and non-reciprocal meanings and the surface forms of the relevant valency modifications.

Reciprocal "se". With respect to reciprocity, three different kinds of se are distinguished:

- "se" as part of the $t$-lemma of a verb.

With inherently reciprocal verbs like setkat se (=meet), hádat se (=argue), prát se (=fight) (it is assumed that the second argument is active in the event) se is taken to be part of their t-lemma (complex t-lemma, see Section 4.3.1, "Multi-word t-lemma"). The verb cannot be used without the reflexive.

The surface-form specification in the valency frame does not contain se, then.

- "se" as a result of expressing the Patient by means of the prepositional phrase " $s+7$ ".

Verbs the Patient (or Addressee) of which is expressed by the prepositional phrase $s+7$, combines with $s e$ as a (surface) result of expressing the Patient by means of the prepositional phrase $s+7$. The corresponding valency frame has the following form, then:

PAT(s+7) (.[se])
Cf.:

- Petr se potkal s Pavlem.PAT (=lit. Petr REFL met with Pavel)

The valency frame:
$\operatorname{ACT}(.1) \operatorname{PAT}(\mathrm{s}+7)(.[\mathrm{se}])$

- "se" as a formal means of expressing reciprocity.

With transitive verbs, reciprocity is regularly signalled (at the surface level) by se, which is not specified, then, in the valency frames (see Section 6.2.2.3, "Productive changes in the surface form (not specified in the valency frames)"). Cf.:

- Petr potkal Pavla.PAT (=Petr met Pavel)

Petr a Pavel se potkali. \{\#Rcp.PAT\} (=Petr and Pavel met)
The valency frame:
$\operatorname{ACT}(.1) \operatorname{PAT}(.4)$
Se (k sobě, mezi sebou) is considered a formal means of expressing reciprocity also with other than transitive verbs. The surface-form specifications in the corresponding valency frames do not contain the information (as it is a regular means of expressing reciprocity).

A typical form used for expressing reciprocity with nouns is the form mezi+7 (=between/among + instrumental). The form mezi+7 is not included in the list of possible surface forms of the argument; it is a regular way of expressing reciprocity (see also Section 6.2.2.3, "Productive changes in the surface form (not specified in the valency frames)"). Cf.:

- jednání vlády.ACT s prezidentem.ADDR (=lit. negotiations (of) government with president)
jednání vlády.ACT a prezidenta.ACT \{\#Rcp.ADDR\} (=lit. negotiations (of) government and president)
jednání mezi vládou.ACT a prezidentem.ACT \{\#Rcp.ADDR\} (=lit. negotiations between government and president)

The valency frame:
ACT(.2,.u) PAT(o+6,ohledně[.2],věc:/AuxP[v-1,.2],v-1[věc.6[tento.\#]],jestli[.v],aby[.v]) ADDR(s+7)

### 6.2.4.2.2. Representing reciprocity in the tectogrammatical trees

Reciprocity is represented by means of inserting a newly established node with the \#Rcp t-lemma into the structure, in the position of the valency modification that was left out (at the surface level) as a result of participating in the reciprocal relation. The newly established node has the functor corresponding to the unoccupied valency position. The relation between the newly established node ( $t$ _lemma=\#Rcp) and the valency modification containing both members of the relation is indicated in the tree as a case of grammatical coreference (see Section 9.2.6, "Coreference in constructions with reciprocity"). Cf.:

## - Jan.ACT a Marie.ACT <se> líbali. \{\#Rcp.PAT\} (=Jan and Marie kissed)

The Actor and Patient of the verb libat are in the reciprocal relation. Both arguments occupy the Actor position and the Patient position is left unoccupied as a result of being in the reciprocal relation. A newly established node with the \#Rcp t-lemma is inserted into the structure in the Patient position (it is assigned the PAT functor). The grammatical coreference relation between the Actor
and Patient is indicated in the tree - in this case, it connects the node with the \#Rcp t-lemma with the node assigned to to the conjunction $a(=a n d)$. Cf. Fig. 6.5.

If none of the valency modifications taking part in the reciprocal relation is an Actor, the position occupied by both members of the relation is assigned the functor that precedes the other one (taking part in the reciprocal relation) in the valency frame (the surface form of the expressed valency modification corresponds to the surface form of the assigned functor). For example, if a verb has the Actor, Patient and Effect in its valency frame and there is a reciprocal relation between the Patient and Effect, the expressed valency position is assigned the PAT functor and the newly established node with the \#Rcp t -lemma is assigned the EFF functor. Cf.:

- Porovnávali Německo.PAT a Koreu.PAT \{\#Rcp.EFF\} (=The compared Germany and Korea)

The valency frame:
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{EFF}(\mathrm{s}+7)$
There is a reciprocal relation between the Patient and the Effect of the verb porovnávat in the sentence. Both arguments occupy the Patient position and the Effect position is left unoccupied as a result of the arguments being in the reciprocal relation. A newly established node with the \#Rcp t -lemma is inserted into the structure in the Effect position (it is assigned the EFF functor). The grammatical coreference relation between the Patient and Effect is indicated in the tree.

More examples:
Němce.PAT odděluje rozdilná mentalita. \{\#Rcp.ORIG\} (=lit. Germans.ACC separates different mentality.NOM, i.e. Germans are not united due to the fact that they have different mentality)

Ukrajina chce sjednotit rozdilné směnné kurzy.PAT své měny. \{\#Rcp.ADDR\} (=lit. Ukraine wants to unify different parities (of) its currency)

Similarly, if a verb has the following valency modifications: ACT, PAT, DIR1 and DIR3 and there is a reciprocal relation between the DIR1 and DIR3 modifications, the expressed valency position is assigned the DIR1 functor and the newly established node with the \#Rcp t-lemma is assigned the DIR3 functor; for example:

Poslanci přehazují návrh zákona mezi klubem.DIR1 a sněmovnou.DIR1 \{\#Rcp.DIR3\} (=lit. Members_of_Parliament shift bill between club and chamber) Fig. 6.6

Formal means of expressing reciprocity. The fact that there is a reciprocal meaning in a sentence is usually signalled by the presence of se ( $k$ sobě, mezi sebou), nevertheless it is not a necessary condition for the construction to be interpreted as involving reciprocity. $S e$, possibly present at the surface level, is not represented by a separate node at the tectogrammatical level; reference to the relevant analytical node(s) is included in the a attribute of the newly established node with the \#Rcp t-lemma. For example:

Státy.ACT Evropské unie $\leq$ mezi sebou $>$ obchoduji. \{\#Rcp.ADDR\} (=lit. States (of) EU between themselves trade) Fig. 6.7

Dvojice.ACT $\leq$ se $>$ fyzicky napadla. $\{\#$ Rcp.PAT \} (=lit. Couple REFL physically attacked; meaning each other)

NB! Adverbials like navzájem, vzájemně (=mutually), spolu (=together) are always represented by a separate node (the functor being usually MANN). E.g.:

Premiér s prezidentem spolu.MANN jednali. (=lit. Prime_minister with president together negotiated) Fig. 6.8

NB! Reciprocal relations are only represented in the tectogrammatical trees in case this affects valency positions, i.e. in case there is an obligatory valency modification non-expressed (a valency position unoccupied).

As for constructions where all valency positions are occupied but where we can detect a reciprocal relation anyway (this concerns mainly inherently reciprocal verbs), the reciprocity is not represented in the tectogrammatical tree at all; this applies e.g. to the following constructions:

Sourozenci.ACT se po sobě.LOC válejí [válet_se.PRED] (=lit. Siblings REFL on each_other roll)
Sousedé.ACT si.BEN navzájem.MANN natřeli plot (=lit. Neighbors REFL mutually/to_each_other painted fence).

Petr.ACT potkal Pavla.PAT (=Petr met Pavel)
Sestra.ACT si dopisuje s přitelem.ADDR [ dopisovat_si.PRED] (=lit. Sister REFL corresponds with friend)

Reciprocal relations between nonobligatory adjuncts are not represented in any way either.
Reciprocity in constructions where all valency positions are occupied (lexically specified) is always only potential. There may be a very strong tendency to interpret the construction as involving reciprocity; however, it is not the only interpretation available (not even for the inherently reciprocal verbs). An appropriate context may cancel out the (potential) reciprocal interpretation. Cf.:

- Pavel se hádá s Janou. (=lit. Pavel REFL argues with Jana)
- Pavel se často hádá s Janou. (=lit. Pavel REFL often argues with Jana)

With respect to reciprocity, especially those constructions are problematic that allow for expressing the Patient (or Addressee) by means of either the accusative case or the prepositional phrase $s+7$. The following overview lists the differences in representing these constructions:

- Jan libal Marii. (=Jan kissed Marie)

The accusative Patient constructions do not have the reciprocal interpretation.
The assigned valency frame:
$\operatorname{ACT}(.1) \operatorname{PAT}(.4)$

- Jan se libal s Marií. (=lit. Jan REFL kissed with Marie)

The constructions with the prepositional phrase Patient $(s+7)$ are potentially reciprocal, i.e. they may but need not have the reciprocal interpretation. An appropriate context may cancel out the reciprocal interpretation (for example: Jan se libá s Marií rád. (=lit. Jan REFL kisses with Marie with_pleasure; i.e. Jan likes to kiss Mary))

Since the reciprocal interpretation is not inevitable and since all the valency positions are occupied, constructions of this type are not represented as involving reciprocity in the tectogrammatical trees.

The assigned valency frame:
АСТ(.1) $\operatorname{PAT(s+7)(.[se])~}$

- Jan a Marie se libali. (=lit. Jan a Marie REFL kissed)

The unoccupied Patient position, se and the coordination in the Actor position are clear signals that there is a reciprocal relation between the Actor and Patient in the sentence. A new node with the \#Rcp t-lemma is inserted into the structure, taking up the position of the absent Patient (cf. Fig. 6.5).

The assigned valency frame:
$\operatorname{ACT}(.1) \operatorname{PAT}(.4)$

- Jan a Marie se libali. (=lit. Jan a Marie REFL kissed.pl) / Jan s Marií se libal. (=lit. Jan with Marie REFL kissed.sg)

The constructions where both (potential) members of the valency frame are present in the sentence and the second one is expressed by the prepositional phrase $s+7$ are assigned an analysis depending on the agreement suffix on the verb:

- if the verb has the plural agreement suffix, the construction is considered to involve reciprocity, just like in Jan a Marie se libali (=lit. Jan and Marie REFL kissed.pl), the difference being that there is no coordination in the Actor position; instead the two members of the reciprocal relation have the form A with B. A new node with the \#Rcp t-lemma is inserted into the structure, in the Patient position.

The assigned valency frame:
ACT(.1) PAT(.4)

- if the verb has the singular agreement suffix, the construction is interpreted as involving no reciprocity, on a par with Jan se libal s Marií (=lit. Jan REFL kissed.sg with Marie). The construction does not have to be interpreted as involving reciprocity. An appropriate context may cancel out the reciprocal interpretation (cf.: Jan s Marií se libal rád. (=lit. Jan with Marie REFL kissed.sg with pleasure). Since it is not necessary to interpret the construction as involving reciprocity, the modification of the form $s+7$ is analyzed as depending directly on the verb and it is assigned the PAT functor.

The assigned valency frame:

$$
\operatorname{ACT}(.1) \operatorname{PAT}(\mathrm{s}+7)(.[\mathrm{se}])
$$

Reciprocal vs. reflexive constructions. Ambiguous constructions where se can be analyzed either as the formal means of expressing reciprocity or as a reflexive pronoun occupying a valency position (the reflexive signals the identity in reference with the closest subject) are disambiguated by assigning the construction either the reciprocal or the reflexive interpretation. Cf.:

- Eva a Jana se natřely opalovacím krémem. (=lit. Eva and Jana REFL put_on suntan lotion)
= Eva natřela Janu a Jana natřela Evu (=Eva rubbed some suntan lotion onto Jana's skin and the other way round; reciprocal interpretation).
= Eva natřela sebe a Jana natřela sebe (=Eva rubbed some suntan lotion onto her own skin and Jana did the same to herself; reflexive interpretation).

If the construction is interpreted as involving reciprocity, se is not assigned a separate node - the reference to it is contained in the a attribute of the newly established node with the \#Rcp t-lemma and the PAT functor. If the construction is to be interpreted reflexively, se is assigned a separate node with the PAT functor.

Multiple reciprocity. There may be multiple reciprocal relations involved in one construction. Cf.:

- Jan a Pavel spolu hovořili o sobě navzájem. (=Jan and Pavel talked together about each other)

There is a reciprocal relation between the Actor and Addressee and also between the Actor and Patient. It is necessary, then, to insert two new nodes with the \#Rcp t-lemma into the structure, one in the Patient, the other one in the Adressee position (the reference to the prepositional phrase o sobě is contained in the a attribute of the newly established node for the Patient).

- Jan a Pavel spolu hovořili (každý sám) o sobě. (=Jan and Pavel talked together, each about oneself)

There is only one reciprocal relation in the sentence - the one between the Actor and the Addressee. The prepositional phrase $o$ sobě has the reflexive meaning here. Only one new node with the \#Rcp
t -lemma is inserted into the structure; the node representing the prepositional phrase o sobe is assigned the PAT functor.

Figure 6.5. Reciprocity


Jan a Marie se líbali. (=lit. Jan and Marie REFL kissed)
Figure 6.6. Reciprocity


Poslanci přehazují návrh zákona mezi klubem a sněmovnou. (=lit. Deputies throw_over bill - between club and parliament)

Figure 6.7. Reciprocity


Státy Evropské unie mezi sebou obchoduji. (=lit. States (of) European union between themselves trade)

Figure 6.8. Reciprocity


Premiér s prezidentem spolu jednali. (=lit. Prime_minister with president together negotiated)

### 6.2.4.2.3. Reciprocity with nouns

Also valency modifications of nouns (and not only the deverbal ones) take part in reciprocal relations. Examples of nouns valency modifications of which may take part in reciprocal relations :
bitva (=battle), boj (=fight), dohoda (=agreement), dialog (=dialogue), domluva (=agreement), duel (=duel), jednání (=negotiation), komunikace (=communication), obchod (=trade), porovnání (=comparison), setkání (=meeting), sjednocení (=unification), utkání (=match), vztah (=relation)

When representing reciprocity with nouns the same rules are followed as when verbal constructions are analyzed. Cf.:

- jednání Petra.ACT a Pavla.ACT o prodeji domu trvalo několik hodin. \{\#Rcp.ADDR\} (=lit. negotiations (of) Petr and Pavel about sale (of) house took several hours)
$=$ Petr negotiated with Pavel and (simultaneously) Pavel negotiated with Petr
The valency frame for the given meaning of the noun jednání (=negotiation):
$\operatorname{ACT}(.2 ; . \mathrm{u}) \operatorname{PAT}(\mathrm{o}+6$,ohledně[.2],věc:/AuxP[v-1,.2],v-1[věc.6[tento.\#]],jestli[.v],aby[.v]) ADDR(s+7)
As a result of expressing the reciprocal relation, the Addressee position is not occupied (at the surface level). A newly established node with the \#Rcp t-lemma is inserted into the structure and it is assigned the ADDR functor. It is indicated that there is a grammatical coreference relation between the newly established node and the Actor position (which is occupied by both members of the reciprocal relation at the same time) (see Section 9.2.6, "Coreference in constructions with reciprocity"; cf. Fig. 6.9).

Like with verbs, the fact that there is a reciprocal meaning between some of the nominal modifications is signalled by the presence of se (mezi sebou, $k$ sobé) in the sentence. These formal means of expressing reciprocity, possibly present at the surface level, are not represented by separate nodes at the tectogram-
matical level; reference to the relevant analytical nodes is included in the a attribute of the newly established node with the \#Rcp t-lemma. For example:

Jednání států <mezi sebou> bylo přerušeno. (=lit. negotiations (of) states between each_other were interrupted)

Adjectives like vzájemný (=mutual), společný (=common) are - just like in the verbal constructions represented by a separate node (the functor is usually MANN). Examples:

Jejich společné.MANN jednání se protáhlo. (=lit. Their mutual negotiations REFL extended) Fig. 6.10 vzájemnú.MANN vztah Petra a Pavla (=lit. mutual relation (of) Petr and Pavel)

A typical signal that there is reciprocity involved in the construction is the form mezi +7 (see also Section 6.2.4.2.1, "Valency frames and reciprocity").

Examples:
Dohoda byla uzavřena mezi zastupiteli.ACT a částí.ACT poslanců z ODS. \{\#Rcp.ADDR\} (=lit. Agreement was made between representatives and part (of) deputies from ODS) Fig. 6.11
$V$ pondělí se konala zajímavá diskuze mezi čtenárí. АСТ a spisovateli.ACT o smyslu literatury. \{\#Rcp.ADDR\} (=lit. On Monday REFL took_place interesting discussion between readers and authors on sense (of) literature)
podrobnosti o setkání obou prezidentů.ACT \{\#Rcp.PAT\} (=lit. details on meeting (of) both presidents) srovnání dvou nesourodých trhů. PAT \{\#Rcp.EFF\} (=lit. comparison (of) two heterogeneous markets) páteční jednání ministrů.ACT \{\#Rcp.ADDR\} (=lit. Friday's negotiations (of) ministers)
obchods ropou mezi státy.ACT Evropské unie \{\#Rcp.ADDR\} (=lit. trade with oil between states (of) EU)
jednáni mezi vládou.ACT a parlamentem.ACT \{\#Rcp.ADDR\} (=lit. negotiations between Government and Parliament)
převod cenných papírů mezi makléři.ACT , burzou.ACT a střediskem.ACT se nezdařil. \{\#Rcp.ADDR\} (=lit. transfer (of) stocks and shares between brokers, stock-market and center REFL failed)

Figure 6.9. Reciprocity with nouns


Jednání Petra a Pavla o prodeji domu trvalo několik hodin. (=lit. Negotiation (of) Petr and Pavel about selling (of) house took several hours)

Figure 6.10. Reciprocity with nouns


Jejich společné jednání se protáhlo. (=lit. Their common negotiation REFL took_more_time)

Figure 6.11. Reciprocity with nouns


Dohoda byla uzavřena mezi zastupiteli a částí poslanců z ODS. (=lit. Agreement was signed between representatives and part (of) deputies from ODS)

### 6.2.4.2.4. Reciprocity and passive

The prepositional phrase mezi+7 (which is understood as a signal that there is a reciprocal relation between certain modifications of a noun) Section 6.2.4.2.1, "Valency frames and reciprocity") may also occur in verbal constructions potentially involving reciprocity; this concerns both periphrastic and reflexive passive constructions.

It holds that:

- the reflexive passive constructions are primarily used with the general Actor; reciprocity is not represented in this kind of construction. The prepositional phrase mezi+7 is considered to be a locative adjunct in these constructions (it is assigned the LOC functor); it is not analyzed as occupying the Actor position. The nodes inserted into the structure in the position of the Actor and the other member of the potentially reciprocal relation have the \#Gen t-lemma.

Examples:<br>S ropou se obchoduje i mezi státy.LOC Evropské unie. \{\#Gen.ACT\} \{\#Gen.ADDR\} (=lit. With oil REFL trades also between states (of) EU)<br>Mezi hráčí.LOC se diskutovalo o tom, zda trenér očekává návštěvu spartanského prezidenta. \{\#Gen.ACT\} \{\#Gen.ADDR\} (=lit. Between players REFL discussed about that whether trainer expects visit (of) Sparta's president)

!!! We assume that, in the future, it might be appropriate to represent also the reciprocal relations between general Actors and other arguments in the tectogrammatical trees.

- the periphrastic passive constructions do not exclude the overt presence of the Actor. The prepositional phrase mezi+7 may be a signal that there is a reciprocal relation between the Actor and one of the other valency modifications.

However, it seems that if there is a reciprocal relation in a periphrastic passive construction, the predicate in passive is in fact a complex predicate (see Section 6.9.3, "Complex predicates"). The prepositional phrase $m e z i+7$ is, then, considered a formal means of expressing the reciprocal relation between some of the valency modifications of the noun that constitutes the nominal part of the complex predicate (not between the arguments of the verb itself; cf. Fig. 6.11).

### 6.2.4.3. Some directions for representing the valency of individual complex nodes

The present section describes individual rules for representing valency in the tectogrammatical trees. The rules concern the following areas:

- representing valency of words with competing valency modifications (see Section 6.2.4.3.1, "Representing the valency of verbs with competing valency modifications"),
- problems with assigning the appropriate valency frames to nouns (see Section 6.2.4.3.2, "Problematic cases w.r.t. the representation of the valency of nouns"),
- functors assigned to non-valency modification of nouns referring to events (see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events"),
- pronouns in place of words with valency (see Section 6.2.4.3.4, "Pronouns in place of words with valency").

Also for complex predicates, there are special rules concerning their valency representation; for these, see Section 6.9.3.4, "Representation of the valency of complex predicates in the tectogrammatical tree".

### 6.2.4.3.1. Representing the valency of verbs with competing valency modifications

Verbs with competing valency modifications and their valency frames are discussed in Section 6.2.3.1.5, "Valency modifications competing for the same position (while the meaning of the verb is preserved)".

Representing the valency of verbs with (some of the) valency modifications competing for a single position. If a valency position can be occupied by more different modifications (with different functors), the valency requirements of the verb are satisfied if one of the competing modifications is present in the position.

In case none of these competing modifications is present at the surface level, a new node is inserted into the structure ( $t$ _lemma=\#Oblfm). The newly established node gets the functor of the most general modification competing for the position. If an obligatory manner adjunct is missing at the surface level, the newly established node with the \#Obl fm t-lemma is assigned the MANN functor.

Also when the verb with competing valency modifications is copied (e.g. in comparative constructions), the newly established node in the valency position of the copied verb to which more different functors may be assigned gets the most general functor, regardless which functor was assigned to the modification in the construction from which the verb was copied. The rule is, then, that when inserting a new node in the position for which more different valency modification compete, the newly established node always get the most general functor (in case of competing modifications of the manner type, the assigned functor is MANN).

Cf.:

- Dopadlo to ve prospěch sester.BEN (=lit. Turned_out it in favour (of) sisters; meaning: The sisters benefited from the situation)

The valency frame:
$\operatorname{ACT}(.1) \operatorname{MANN}(*)|\operatorname{CrIt}(*)| \operatorname{ACMP}(*)|\operatorname{BEN}(*)| \operatorname{CPR}(*)$
The modification ve prospěch sester occupies the obligatory manner position (i.e. no node is inserted into the structure on the position; cf. Fig. 6.12).

- Projevilo se to zvýšenim.MEANS inflace. (=lit. Showed/manifested REFL it by_increase (of) inflation; meaning: You could see that by the inflation rise)

The valency frame:
$\operatorname{ACT}(.1) \operatorname{MANN}(*)\left|\operatorname{CRIT}\left({ }^{*}\right)\right| \operatorname{ACMP}\left({ }^{*}\right)\left|\operatorname{BEN}\left({ }^{*}\right)\right| \operatorname{CPR}(*)$
The modification zuýśenim (inflace) occupies the obligatory manner position (i.e. no node is inserted into the structure on the position).

- Ta vypadá. \{\#Oblfm.MANN\} (=lit. That.fem looks; meaning: She looks awful/so strange...)

The valency frame:
$\operatorname{ACT}(.1) \operatorname{MANN}(*)|\operatorname{CRIT}(*)| \operatorname{ACMP}(*)|\operatorname{BEN}(*)| \operatorname{CPR}(*)$
A new node with the \#Obl fm t-lemma and the MANN functor is inserted into the structure on the position of the obligatory manner adjunct (cf. Fig. 6.13).

- Jedná s nadšením.ACMP stejnějako já \{jednat.CPR\} \{\#Obl fm.MANN\} (=lit. (He) acts with enthusiasm just like me)

The valency frame:
$\operatorname{ACT}(.1) \operatorname{MANN}(*)|\operatorname{CRIT}(*)| \operatorname{ACMP}(*)|\operatorname{BEN}(*)| \operatorname{CPR}(*)$
Since this is a comparative construction, the verb jednat is copied into the structure. The newly established node for the obligatory manner adjunct (i.e. the position for which more different modifications compete) has the \#Oblfm t-lemma and the MANN functor even though the same position with the original verb is occupied by a modification with the ACMP functor (cf. Fig. 6.14).

Figure 6.12. Representing the valency of verbs with competing valency modifications


Dopadlo to ve prospěch sester. (=lit. Turned_out it for benefit (of) sisters)
Figure 6.13. Representing the valency of verbs with competing valency modifications


Ta vypadá. (=lit. She looks)

Figure 6.14. Representing the valency of verbs with competing valency modifications


Jedná s nadšením stejně jako já. (=lit. (She) acts with enthusiasm just like me)
Representing the valency of verbs that have more valency frames for a single meaning. As for the verbs where the problem posed by competing valency modifications is solved by means of proposing different valency frames for the relevant meaning of the verb, the following rules apply:

- if the modification in the position for which more different modifications compete is expressed at the surface level, the verb is assigned the valency frame corresponding to the expressed modification.
- if none of the competing modifications is present at the surface level, there is no lead for choosing the appropriate valency frame. In this case, the following simple rules are to be followed:
- if the competing modifications have one of the following functors: $A D D R, ~ L O C, D I R 3, D I R 1$, the valency frame with the Addressee is to be chosen (since arguments are higher in the hierarchy).

The rule applies also in those cases in which both the Addressee and the locative/directional adjunct are present at the surface level; the verb is assigned the valency frame with the Addressee, the locative/directional adjunct is taken to be a non-valency modification.

- in case the LOC and DIR3 modifications compete for the same position in the valency frames of verbs of "puting something somewhere" (at some place/to some place) or verbs of "taking up a place" or "changing a position", the valency frame with the DIR3 modification takes precedence.

This rule applies also to the cases when the obligatory locative/directional adjunct is expressed by a homonymous form (the one corresponding both to the question "where to (to what place)?"
and "where (at what place)?") and when it is not possible to decide which of the two interpretations is more appropriate in the context (see also Section 7.4.3.1, "Borderline cases with the DIR3 functor"): the homonymous locative/directional adjunct is assigned the DIR3 functor.

Cf.:

- representing the valency of the verb podat (=submit), which has the following three valency frames for one of its meanings:
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{d u ̊ k a z$, informace, návrh, odvolání, oznámení, podnět, stížnost, výpověd’, zpráva, žádost, žaloba,...\}.4) $\operatorname{ADDR}(.3)$
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{d u ̊ k a z$, informace, návrh, odvolání, oznámení, podnět, stížnost, výpověd’, zpráva, žádost, žaloba,...\}.4) DIR3(*)
$\operatorname{ACT}(.1) \operatorname{CPHR(\{ důkaz,~informace,~návrh,~odvolání,~oznámení,~podnět,~stížnost,~výpověd’,~zpráva,~}$ žádost, žaloba,...\}.4) LOC(*)
- Včera jsem podal žádost na úřad.DIR3 (=lit. Yesterday (I) submitted/lodged application to institution)

One of the competing valency modifications is expressed (present at the surface level). It is assigned the valency frame with the DIR3 modification.

- Včera jsem podal žádost. (=lit. Yesterday (I) AUX submitted application)

None of the competing valency modifications is expressed. The verb is assigned the valency frame with the ADDR modification. A new node is inserted into the structure in the position of the non-expressed ADDR modification (the choice of the appropriate t-lemma is governed by the rules described in Section 6.12.2, "Ellipsis of the dependent element"; cf. Fig. 6.15).

- Včera jsem na městském úřadě.LOC podal žádost kompetentnímu oddělení.ADDR (=lit. Yesterday (I) AUX at municipal authority submitted application (to) competent department)

In this case, two of the competing modifications are expressed (present at the surface level). The verb is assigned the valency frame with the Addressee; the locative adjunct is considered a non-valency adjunct.

- representing the valency of the verb umistit (=place), which has the following two valency frames for one of its meanings:
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{DIR} 3(*)$
АСТ(.1) PAT(.4) LOC(*)
- Umistil křeslo vpokoji.LOC (=lit. (He) placed armchair in room)

One of the competing valency modifications is expressed (present at the surface level). The verb is assigned the valency frame with the LOC modification.

- Konečně je křeslo správně umistěno. \{\#Oblfm.DIR3\} (=lit. Finally is armchair correctly placed)

None of the competing valency modifications is expressed. The verb is assigned the valency frame with the DIR3 modification. A new node is inserted into the structure in the position of the non-expressed DIR3 modification; its t-lemma is \#Oblfm (cf. Fig. 6.16).

- Umistil křeslo vedle skřině.DIR3 (=lit. (He) placed armchair next_to wardrobe)

The form of the adjunct corresponds to both of the competing modifications (providing the answer for both the question "where to?" and "where?"); it is homonymous. If it does not follow
form the context which of the meanings is involved in this particular case, the verb is assigned the valency frame with the DIR3 modification.

Figure 6.15. Representing the valency of verbs with competing valency modifications


Včera jsem podal žádost. (=lit. Yesterday (I) AUX submitted application)
Figure 6.16. Representing the valency of verbs with competing valency modifications


Konečně je křeslo správně umistěno. (=lit. Finally is armchair well placed)

### 6.2.4.3.2 Problematic cases w.r.t. the representation of the valency of nouns

If a noun with valency requirements has no expressed valency modifications (or if only some of them are expressed), it may be impossible to decide which valency frame is to be assigned to the noun (this is due to the homonymy or even vagueness of the construction).

If the construction is ambiguous, it is up to the annotator to decide which interpretation is involved.

Agentive vs. agent-less constructions. Certain nouns can refer either to agentive or agent-less events: sniženi (=decrease), šiřeni (=spreading), zvednutí (=rising/increase), zpevnění (=reinforcement), zpomalení (=slowing down), posilení (=strengthening/reinforcement); these are nouns that are derived either from active or their corresponding reflexive verbs.

Two valency frames are available for this type of nouns:

- one for the agentive events:
$\operatorname{ACT}(.2, .7, . u) \operatorname{PAT}(.2, . u)$.
- one for the agent-less events:

АСТ(.2,.u).
In some case it is quite easy to tell whether the given event has an agent or whether there is no agent involved in the event; in other cases, however, the context does not help and it is impossible to decide what the right interpretation is. Cf.:

- snižení cen.PAT na některé druhy zboži \{\#Gen.ACT\} (=lit. decrease (of) prices for some kinds (of) goods)
$=$ agentive event
- snižení hladiny.PATřek (=lit. sinking (of) water_level (of) rivers)
$=$ agent-less event
- snižení výkonu mužstva (=lit. descent/lowering (of) performance (of) team)

It is possible to interpret the construction in two different ways: either someone or something caused the fact the the current performance of the team is worse than it was before or the performance got worse by itself.

More ambiguous cases:

- po zranění našeho brankáře (=lit. after injuring (of) our goal-keeper; i.e. after our goal-keeper was injured)

The construction can be interpreted in two ways: either the goal-keeper caused his injury himself or someone else injured him.

- znehodnocení skladovaných léki̊ (=lit. damage (of) stored drugs)

It is possible to interpret the construction in two different ways: either someone caused the damage or the drugs lost their value without anyone or anything causing it directly (e.g. due to being stored for too long).

- zviditelnění samostatného slovenského státu (=lit.drawing_attention (to) independent Slovak state)

The construction can be interpreted in two ways: either someone or something drew attention to the Slovak republic or it happened by itself (without anybody causing it directly).

Problems caused by too subtle differences between the individual valency frames. Sometimes, different valency frames correspond to meanings between which there are only subtle differences. Without a sufficient context, it may be difficult to decide which valency frame is appropriate for a given noun token. Cf.:

- valency frames of the noun vyjednávání (=negotiations):
$\operatorname{ACT}(.2, . \mathrm{u}) \operatorname{PAT}(\mathrm{o}+6) \operatorname{ADDR}(\mathrm{s}+7)$
$\operatorname{ACT}(.2, . \mathrm{u}) \operatorname{PAT}(.2, \mathrm{u}) \operatorname{ADDR}(\mathrm{s}+7)$
Examples:
- vyjednávání pracovních podmínek.PAT se zaměstnavatelem.ADDR (=lit. negotiating (of) working conditions with employer)

The valency frame:
$\operatorname{ACT}(2,7, u) \operatorname{PAT}(2, u) \operatorname{ADDR}(\mathbf{s}+7)$

- vyjednávání o termínech.PAT dodávek s provozovatelem.ADDR (=lit. negotiating about dates (of) delivery with owner/operator)

The valency frame:
$\operatorname{ACT}(.2, . \mathrm{u}) \operatorname{PAT}(\mathrm{o}+6) \operatorname{ADDR}(\mathrm{s}+7)$

- kolektivní vyjednávání trvá několik hodin (=lit. collective negotiations take several hours)

The construction can be interpreted in two ways.

- valency frames of the noun vyprávění (=(story-)telling):
$\operatorname{ACT}(.2, .7, . \mathrm{u}) \operatorname{PAT}(\mathrm{o}+6)$ ? $\operatorname{ADDR}(.3)$
$\operatorname{ACT}(.2, .7, . \mathbf{u}) \operatorname{PAT}(.2, . \mathbf{u}) ? \operatorname{ADDR}(.3)$
Examples:
- vyprávěni pohádek.PAT (=lit. telling (of) fairy-tales)

The valency frame:
$\operatorname{ACT}(.2, .7, . \mathrm{u}) \operatorname{PAT}(.2, . \mathrm{u}) ? \operatorname{ADDR}(.3)$

- vyprávění o Africe.PAT (=talking about Africa)

The valency frame:
$\operatorname{ACT}(.2, .7$, u) $\operatorname{PAT}(\mathrm{o}+6)$ ? $\operatorname{ADDR}(.3)$

- podle vyprávění jednoho z hráči̛ (=lit. according to telling (of) one of players; i.e. one of the players' version of the story)

The construction can be interpreted in two ways.
Competing valency modifications of nouns. Cases of competing verbal valency modifications are discussed in Section 6.2.3.1.5, "Valency modifications competing for the same position (while the meaning of the verb is preserved)". Competing valency modifications may be found with (deverbal) nouns as well. Cf.:

- valency frames of the noun podáni (=submission):
$\operatorname{ACT}(.2, .7, . \mathrm{u}) \operatorname{PAT}(.2, \mathrm{u}) ? \operatorname{ADDR}(.3)$
$\operatorname{ACT}(.2, .7, . \mathbf{u}) \operatorname{PAT}(.2, . \mathbf{u}) \operatorname{DIR} 3(*)$
Examples:
- podání daňového přiznání finančnímu úřadu.ADDR (=lit. submission (of) tax return tax office.DAT)

The valency frame:
$\operatorname{ACT}(.2, .7, . \mathrm{u}) \operatorname{PAT}(.2, . \mathrm{u})$ ? $\operatorname{ADDR}(.3)$

- podání daňového přiznání na finanční úřad.DIR3 (=lit. submission (of) tax return to tax office)

The valency frame:
$\operatorname{ACT}(.2, .7, . \mathrm{u}) \operatorname{PAT}(.2, . \mathrm{u}) \operatorname{DIR} 3(*)$

- 31. března končí termín pro podání dañového přiznání. (=lit. 31st March ends limit for submission (of) tax return)

The construction can be interpreted in two ways.

- valency frames of the noun umistěni (=placing):
$\operatorname{ACT}(.2, .7$, u) $\operatorname{PAT}(.2$, u) LOC(*)
$\operatorname{ACT}(.2, .7, . \mathbf{u}) \operatorname{PAT}(.2, . \mathbf{u}) \operatorname{DIR} 3(*)$
Examples:
- umistění dětív dětských domovech.LOC (=lit. placing children in children's homes)

The valency frame:
$\operatorname{ACT}(.2, .7,$. u) $\operatorname{PAT}(.2, . u) \operatorname{LOC}(*)$

- umistění dětí do dětských domovů.DIR3 (=lit. placing children into children's homes)

The valency frame:

$$
\operatorname{ACT}(.2, .7, . \mathbf{u}) \operatorname{PAT}(.2, . \mathrm{u}) \operatorname{DIR} 3(.3)
$$

- o budoucím umistěni prodejny se vedou spory (=lit. about future placement (of) shop is_debated)

The construction can be interpreted in two ways.
!!! The rules telling which valency frame should be chosen in ambiguous cases (see Section 6.2.3.1.5, "Valency modifications competing for the same position (while the meaning of the verb is preserved)") do not apply in nominal constructions (so far). The decision in ambiguous cases rests with the annotator.

### 6.2.4.3.3. Functors assigned to the non-valency modifications of nouns referring to events

Non-valency modifications of deverbal nouns referring to events (see Section 6.2.3.2.4.1, "Valency frames of nouns referring to events") are assigned functors they would get if they modified the corresponding verb. Hence, if a noun is assigned an eventive valency frame, all modifications of the noun (including agreeing adjectival modifiers) are assigned functors of (ad)verbal modification. Cf.:

- dvě.THO včerejšíl.TWHEN jednání parlamentu.ACT o danich.PAT (=lit. two yesterday's negotiations (of) Parliament about taxes)
$=$ Parlament včera dvakrát jednal o danich. (=The Parliament negotiated about the taxes twice yesterday)
- dvě.THO včerejší.TWHEN zásadní.MANN rozhodnutí vlády.ACT (=lit. two yesterday's principal decisions (of) Government)
$=$ The Government made two fundamental decisions yesterday (cf. Fig. 6.17)
- přirozené.MANN vybirání (=lit. natural selection)
$=$ přirozeně vybirat $(=$ to select naturally)
More examples:
zdejší.LOC výskyt (=lit. local incidence)
tehdejší.TWHEN pobyt ve východní Evropě (=lit. that_time's stay in Eastern Europe)
letošní.TWHEN příchod zimy (=lit. this_year's arrival (of) winter)
poslední.TWHEN jmenováni (=lit. last appointment (to a function))
vysoké.EXT zatiženi (=lit. high load)
The nominal functor RSTR is only assigned to a modification of such a noun in the following cases:
- if the noun is modified by the following pronouns: ten, tento, onen, některý, nějaký, žádný.

For example:
tato.RSTR včerejší.TWHEN hlasováni parlamentu.ACT (=lit. this yesterday's voting (of) Parliament) ono.RSTR poskakování (=that jumping)

- if the noun is modified by an adjective to which it is hard to assign a verbal modification functor.

For example:
určitá.RSTR jednání parlamentu.ACT (=lit. certain negotiations (of) Parliament)

- if the noun is modified by a relative clause.

For example:
tato.RSTR hlasováni parlamentu.ACT, která se uskutečnila.RSTR včera. (=lit. these votings (of) Parliament that took_place yesterday) Fig. 6.18

NB! Agreeing adjectival modifiers (with the exception of possessive adjectives and pronouns) are not considered arguments; they are assigned adjunct functors; e.g.:
soudní.MANN rozhodnutí (=lit. court's decision) Fig. 6.19
!!! Non-valency modifications of nouns (referring to events) in the form of agreeing adjectives are assigned functors for verbal adjuncts consistently only in the case of verbal nouns (i.e. those ending with -ni or $-t i$ ) and mostly only in the case of the TWHEN modification. In other cases, the agreeing adjectival modifiers are often assigned the RSTR functor.

Figure 6.17. Representing the valency of nouns referring to events


Figure 6.18. Representing the valency of nouns referring to events

tato hlasování parlamentu, která se uskutečnila včera (=lit. those votings (of) parliament which REFL took place yesterday)

Figure 6.19. Representing the valency of nouns referring to events

soudní rozhodnutí (=lit. court's decision)

### 6.2.4.3.4. Pronouns in place of words with valency

Deictic words may stand in coreference relations with words that have valency requirements (usually nouns). Then, the deictic word inherits the valency properties of the co-referred word. Hence, valency modifications of these co-referred words may modify the deictic words.

These are mainly cases of relative pronouns (in relative clauses) co-referring with nouns with valency requirements. There is a grammatical coreference relation between the relative pronoun and the corresponding noun, which is marked in the tectogrammatical tree (see Section 9.2.2, "Coreference with relative elements"). However, there may be also cases of textual coreference.

The node for the co-referring pronoun is assigned the same functor as the co-referred word would get in its position (it can also be CPHR or DPHR). If the clause containing the co-referring pronoun contains a valency modification of the coreferred word, this valency modification depends on the co-referring pronoun node and it is assigned a functor according to the valency frame of the co-referred word. For those obligatory valency modifications of the co-referred word that are not present at the surface level (as modifications of the relative pronoun), new nodes are inserted into the structure only in the case they are involved in grammatical coreference relations.

The pronoun itself is assigned no valency frame. Only the co-referred word is assigned a valency frame.

Cf:

- Vliv, který.CPHR mají na situaci.PAT, je velký. (=lit. Influence which (they) have on situation is big)

The relative pronoun ktery' in the relative clause refers to the noun vliv (=influence) which has the following valency frame: $\operatorname{ACT}(.2 ; \cdot \mathrm{u}) \operatorname{PAT}(\mathrm{na}+4)$. There is a grammatical coreference relation between the relative pronoun ktery' and the noun vliv, which is marked in the tectogrammatical tree (see Section 9.2.2, "Coreference with relative elements").

The relative pronoun ktery' is assigned the CPHR functor (mit vliv (=have influence) is a complex predicate; see Section 6.9.3, "Complex predicates"). The prepositional phrase na situaci (=on the situation) is the Patient of the noun vliv; its node depends on the node for the relative pronoun ktery' and its functor is PAT. A new node with the \# PersPron is inserted into the structure as a dependent
node of the node for the noun $v l i v$; there is a textual coreference relation marked between the node for the Patient na situaci and the newly established node (cf. Fig. 6.20).

- (Začináme upomínkami, těch bylo vloni asi osm set, a končíme soudnimi žalobami. (=We start with reminders, there were about eight hundred reminders last year, and end with legal actions.) Bylo jich.CPHR podáno na sedmdesát. (=lit. Was of_them lodged about seventy; i.e. there were about seventy of them)

The pronoun on refers to the noun žaloba (=legal action). There is a textual coreference relation between the pronoun on and the noun žaloba, which is marked in the tectogrammatical tree (see Section 9.2.2, "Coreference with relative elements"). The pronoun on is assigned the CPHR functor (podat žalobu (=take legal action) is a complex predicate; see Section 6.9.3, "Complex predicates").

More examples:
Zájem, který.CPHR rolnici projevují o kurzy. PAT , neni malý. (=lit. Interest which farmers show for courses is not small)

Válečnou sekeru, kterou.DPHR včera zakopali, dneska zase vykopali. (=lit. Battle-axe which (they) yesterday buried, today again took up)

Figure 6.20. Pronouns in place of words with valency


Vliv, který mají na situaci, je velký. (=lit. Influence which (they) have on situation is big)

### 6.3. Deep structure word order

Deep structure word order describes the organization of words in a sentence according to their increasing communicative dynamism. (see Section 10.3, "Communicative dynamism"). Consequently, the deep structure word order differs in some cases from the surface structure word order, especially when the surface structure word order is determined by grammatical rules (e.g. preposed agreeing attributes are usually more dynamic than their governing nouns and therefore they come second in the deep structure word order) or in the marked case of subjective order (see Section 10.1.1, "Surface word order").

The deep structure word order is represented by the organization of the nodes in the tree: each node within a tree has a fixed position. All tectogrammatical tree nodes are organized linearly (from the left to the right) in a way respecting the projectivity condition (see Section 10.3.4, "Projectivity of tectogrammatical trees").

For more details see Chapter 10, Topic-focus articulation.

### 6.4. Verbal and non-verbal clauses

A sentence (represented by a tectogrammatical tree) is formed by one or more clauses.
The following types of clauses are distinguished w.r.t. their in-/dependency:

## - independent clauses.

Independent clauses are such clauses the effective root nodes of which are not dependent on any part of any other clause.

In the tree, the effective root node(s) of the represented sentence is (are) the effective root node(s) of the independent clause(s). However, it is also possible for the effective root node of an independent clauses to be lower in the tree (which is the case with e.g. parentheses, see Section 6.4.3, "Connecting verbal and non-verbal clauses").

Independent clauses can be both verbal and non-verbal.

- dependent clauses.

Dependent clauses are such clauses the effective root nodes of which are dependent on a part of another clause.

Dependent clauses are mainly verbal clauses. But also non-verbal clauses can be dependent clauses in certain cases (see Section 6.4.3, "Connecting verbal and non-verbal clauses").

The following types of clauses are distinguished according to the governing node of the clause:

- verbal clauses.

Verbal clauses are such clauses the governing node (predicate) of which is a finite verb form (but also a non-finite verb form and other forms with the function of a verbal predicate; see Section 6.4.1, "Verbal clauses").

Verbal clauses can be dependent as well as independent.

## - non-verbal clauses.

Non-verbal clauses are such clauses the governing node of which is not a verb.
Non-verbal clauses are usually independent. They are only dependent in special cases (see Section 6.4.3, "Connecting verbal and non-verbal clauses").

The present section is devoted to the way it is determined whether a given clause is verbal (Section 6.4.1, "Verbal clauses") or non-verbal (Section 6.4.2, "Non-verbal clauses") and it describes the basic rules for connecting them by means of dependency and non-dependency relations (Section 6.4.3, "Connecting verbal and non-verbal clauses").

### 6.4.1. Verbal clauses

Non-verbal clauses are explicitly defined (see Section 6.4.2, "Non-verbal clauses"). All other clauses are considered verbal.

The effective root node of a verbal clause is a node representing the governing predicate (which is usually a verb) of the clause. If there is no such verb expressed in the surface structure of the sentence, nor is the verb ellided (i.e. the node for the verb cannot be copied) and no punctuation mark can be considered the governing predicate either (see below), the effective root node of the verbal clause is represented by a newly established node with the t-lemma \#EmpVerb (see also Section 6.12.1.1, "Ellipsis of the governing verb").

The effective root node of an independent verbal clause has the functor PRED (see also Section 7.1.1, "PRED"). If the independent verbal clause is a parenthesis, its effective root node has the functor PAR (see Section 7.1.5, "PAR"). The effective root nodes of dependent verbal clauses are assigned functors decribing their dependency relations w.r.t. their governing nodes.

The effective root node of a verbal clause (the predicate) can be a node representing:

## - a finite verb form.

The most common case of a verbal clause is the case in which the predicate is a finite verb form or when the verb is ellided (see Section 6.12.1.1.1, "Textual ellipsis of the governing verb").

Examples:
Proč o tom uvažujeme. PRED ? (=Why do we think about it?)
(Pražští studenti se sejdou na Vyšehradě.) Brněnští \{ se sejdou. PRED \} na Petrově. (=(The Prague students will meet at Vyšehrad.) Those in Brno will meet at Petrov)

## - an interjection.

The effective root node of a verbal clause can also be a node representing an interjection - in case the interjection has the role a verbal predicate in the clause.

Examples:
$\underline{H r r}$.PRED na ně. (=Now for them!)
Zvolal: $\underline{H r r}$.PAT na ně. (=He exclaimed: Now for them!)

## - infinitive or participle.

A node representing an infinitive or participle is the effective root node of a verbal clause in case the infinitive or participle occupy the position of the finite verb form in the clause (i.e. they play the role of a verbal predicate).

Examples:
Kam jít. PRED ? (=lit. Where to_go?) Fig. 6.21
Ale proč o tom uvažovat.PRED ! (=lit. But why about it to_think!) Fig. 6.22

Sparta poražena.PRED! (=Sparta defeated!) Fig. 6.23
Být.PRED tak o deset let mladši. (=lit. To_be so by ten years younger)
Nemluvit.PRED! (=lit. Not_to_speak!)
Deset let poslouchat.PRED totéž. (=lit. Ten years to_listen the_same)
Nevíme, kam jít.PAT (=We don't know where to go)
For the rules for annotation of dependent infinitival and participial constructions see Section 6.5.1.1, "Dependent infinitival constructions" and Section 6.5.1.2, "Dependent participial constructions".

Infinitival (as well as participial) constructions usually express certain modal meanings (the construction is a wish, exclamation etc.) Cf.:

- Ale proč o tom uvažovat. (=lit. But why about it to_think!)
$=$ Why should we think about it.
- Deset let poslouchat totéž. (=lit. Ten years to_listen the_same)
$=I$ have to listen to the same things for ten years.
!!! The modal meanings of infinitival and participial constructions have not been captured in PDT so far: the nodes representing the infinitive or participle have the decl value in their deontmod grammateme (see Section 5.5.10, "The deontmod grammateme (deontic modality)")
- punctuation.

The effective root of a verbal clause is a node representing a punctuation mark in those cases when no verb is present in the clause (and it is not just ellided) and, simultaneously, if the punctuation plays the role of the predicate. Usually a simple verb could be inserted into such constructions (typically the verb být (=be)) and it is also possible to determine the syntactic functions of the individual dependent lexical units w.r.t. the absent verb; in this, this kind of construction differs from (superficially similar) cases of coordination or apposition (e.g.: Josef Novák, Praha; see also Section 6.4.2, "Non-verbal clauses").

Examples:
Doprava: vlastni. [\#Colon.PRED] (=lit. Transportation: own) Fig. 6.24
Mladost - radost. [\#Dash.PRED] (=lit. Youth - pleasure)
Rozhodčí: Ulrich. [\#Colon.PRED] (=Referee: Ulrich)
Obrázek: 4. [\#Colon.PRED] (=lit. Picture: 4)
Zvolal: Mladost - radost. [\#Dash.PAT] (=lit. (He) exclaimed: Youth - pleasure)
(režie: Stiller) [\#Colon.PAR] (=lit. (director: Stiller))
NB! A node representing a punctuation mark is only considered the effective root node of a clause if it really has this function. If the construction that is considered verbal contains punctuation marks but none of them can be taken to be the predicate (e.g. V Praze, v pět hodin. (=in Praha, at five $o^{\prime}$ clock); cf. Fig. 6.26), the effective root node of the clause is a newly established node with the t-lemma substitute \#EmpVerb, not a node for the present punctuation mark.

## - three dots.

The effective root node of a verbal clause can also be a node representing three dots; this happens in those cases when the clause (introduced by a connective) is left unfinished. If there are no three dots used in such a sentence, the effective root node is a newly established node with the t-lemma substitute \#EmpVerb.

Examples:
Jenže... \{\#Period3.PRED\} (=But...) Fig. 6.27
A přece... \{\#Period3.PRED\} (=And still...)
Řekl, že ... \{\#Period3.EFF\} (=He said that...)

## - a newly established node for an empty verb (the \#EmpVerb t-lemma).

A newly established node for an empty verb (\#EmpVerb) is the effective root node of a verbal clause in those cases in which there is no verb present in the clause (and it is not just ellided) but in which the individual modifications occur in such forms like there was a verb in the clause. Usually a simple verb could be inserted into such constructions; however, this possibility is not a necessary condition for interpreting these constructions as verbal.

Examples:
\{\#EmpVerb.PRED\} Nač ten spěch? (=lit. Why the hurry?) Fig. 6.25
\{\#EmpVerb.PRED\} V Praze, v pět hodin. (=In Praha, at five o'clock) Fig. 6.26
\{\#EmpVerb.PRED\} Vodu! (=Water!)
\{\#EmpVerb.PRED\} Samozřejmě. (=Of course)
(Nač ten spěch?) (=lit. (Why the hurry?)) \{\#EmpVerb.PAR\}
Zvolal: Nač ten spěch? \{\#EmpVerb.PAT\} (=lit. (He) exclaimed: Why the hurry?)
These clauses, in which there is no verb present in the surface structure and it is not ellided either cannot be, however, considered non-verbal (according to the definition in Section 6.4.2, "Nonverbal clauses"), are called constructions with an empty verb.

For more on ellipsis of the main verb, see Section 6.12.1.1, "Ellipsis of the governing verb".
Fragmentation. Also those cases are considered verbal clauses (usually with an ellided verb) in which a modification having morphological characteristics of a dependent expression is left behind, i.e. is separated from the rest of the clause. If the governing node of the separated expression is a node corresponding to the syntactic nominative, the separated expression is represented as a non-verbal nominative - clause (see Section 6.4.2, "Non-verbal clauses"). Cf.:

- (Do práce dojiždím.) Až do Prahy. (=(I commute to work.) As far as to Praha)
$=($ Do práce dojiždím.) \{dojíždět.PRED $\}$ až do Prahy.
- (Přišel Petr, Pavel, Honza.) Jirka. (=lit. (Came Petr, Pavel, Honza.) Jirka.)
$=($ Přišel Petr, Pavel, Honza.) Jirka.DENOM
!!! Cases of fragmentation are not marked in any special way in PDT.

Figure 6.21. Verbal clause


Kam jít? (=lit. Where to_go?)
Figure 6.22. Verbal clause


Ale proč o tom uvažovat! (=lit. But why about it to_think!)

Figure 6.23. Verbal clause


Sparta poražena! (=lit. Sparta defeated!)
Figure 6.24. Verbal clause


Doprava: vlastní. (=lit. Transportation: own)

Figure 6.25. Verbal clause


Nač ten spěch? (=lit. Why the hurry?)
Figure 6.26. Verbal clause


V Praze, v pět hodin. (=lit. In Praha, at five o'clock)

## Figure 6.27. Verbal clause

```
Q
root
    O
    #Period3.enunc
    f_PRED
    qcomplex
O
jenže
t_PREC
atom
```

Jenže... (=But...)

### 6.4.2. Non-verbal clauses

Non-verbal clauses are:

- nominative clauses.

The governing node of a nominative clause is a noun in the nominative (and other forms with the same function; see further).

For example:
Praha.

- vocative clauses

The governing node of a vocative clause is a noun in the vocative.
For example:
Milá Pavlíno! (=Dear Pavlina!)

- interjectional clauses.

The governing node of an interjectional clause is an interjection or a yes-no particle.
For example:
Ach. (=Oh)
Ano. (=Yes)

Nominative clauses. The effective root node of a nominative clause is a node representing the governing noun in the (syntactic) nominative.

If the nominative clause is an independent clause, the effective root node gets the DENOM functor (see Section 7.1.2, "DENOM"). If the independent nominative clause is a parenthesis, its effective root node has the PAR functor (see Section 7.1.5, "PAR").

In those special cases when the nominative clause is a dependent clause, the effective root node gets a functor according to the relation of the clause to its governing node. These are cases of the nominative clause used as direct speech (see Section 8.3, "Direct speech") or the nominative of identity (see Section 8.8, "Identifying expressions"). See also Section 6.4.3, "Connecting verbal and non-verbal clauses".

The governing node of a nominative clause is not necessarily a noun in the nominative; it can also be another expression with the same function. The effective root node of a nominative clause can be a node representing:

- a noun in the nominative.

Examples:
Důležitá událost.DENOM (=lit. Important event) Fig. 6.28
Branky.DENOM , body.DENOM , vteřiny.DENOM (=lit. Goals, points, seconds) Fig. 6.29

- traditional adjectives, numerals, pronouns in the nominative.

These are expressions belonging to semantic nouns at the tectogrammatical level; their sempos attribute is assigned one of the values for semantic nouns (see Section 5.3.1, "The sempos attribute").

Examples:
Vltavská.DENOM
1989. DENOM

On.DENOM a ona.DENOM (=He and she)

- genitive following a numeral.

These are cases in which the governing node is the node representing the counted object (the noun in the genitive), not the numeral in the nominative (see Section 8.10.1.1, "Numerals with the role of an attribute (RSTR)").

Example:
10 let.DENOM (=10 years.GEN)

- an abbreviation.

Examples:
čtk.DENOM
Václav N. DENOM . junior.

- meta-language uses of certain expressions and foreign-language expressions.

For the annotation rules, see Section 8.9, "Foreign-language expressions" and Section 8.8, "Identifying expressions".

Example:
van Beethoven. [ van_Beethoven.DENOM]

- a newly established node for a foreign-language expression (the \#Forn t-lemma).

For the annotation rules for foreign-language expressions, see Section 8.9, "Foreign-language expressions".

Example:
New York \{\#Forn.DENOM\}

- a newly established node for an identifying expression (the \# Idph t-lemma).

For the annotation rules for identifying expressions, see Section 8.8, "Identifying expressions".
Example:
Jiráskovo Proti všem \{\# I dph.DENOM\} (=Jirásek's Proti všem)

## - a newly established node for the governing noun.

The governing node (syntactic nominative) can be ellided in the surface form of the sentence. Then, following the rules in Section 6.12.1.2, "Ellipsis of the governing noun", a new node is inserted into the structure in the position of the effective root node of the nominative clause. In case of grammatical ellipsis the newly established node has the \#EmpNoun t-lemma.

Example:
(Zázrak? Omyl?) Ani jedno.DENOM, ani druhé \{\#EmpNoun.DENOM\} (=(Miracle? Mistake?) lit. Neither one, nor the_other)

NB! In cases of ellipsis, it is necessary to consider carefully whether the ellided element (governing node) is a noun or verb. In unclear cases, the preferred option is the ellipsis of a verb.

NB! Key words without morphology are taken to be nominative clauses. Key words in a sequence of key words, separated by punctuation or connectives, are represented either as being in coordination, or apposition (cf. Fig. 6.29). These sequences are to be distinguished from constructions in which a punctuation mark between two nouns in the nominative case is a predicate in fact and which are thus considered verbal (e.g. Mladost - radost, cf. Section 6.4.1, "Verbal clauses").

Vocative clauses. The effective root node of a vocative clause is a node representing the vocative.
The effective root node of a vocative clause has the functor VOCAT (see Section 7.1.3, "VOCAT"); an exception are the cases in which the vocative clause is in the position of the nominative of identity (see Section 8.8, "Identifying expressions"). See also Section 6.4.3, "Connecting verbal and nonverbal clauses".

Examples:
Jirko.VOCAT (=Jirka!) Fig. 6.30
Občane.VOCAT , chceš dýchat čistý vzduch a mit také teplo? (=Citizen! Do you want to breathe fresh air...?)

Zeptali se: Občane.VOCAT , chceš dýchat čistý vzduch a mít také teplo? (=They asked: Citizen! ..) nápis Občane. ID (=The sign: Citizen!)

Interjectional clauses. The effective root node of an interjectional clause is a node representing an interjection or particle (ano (=yes), ne (=no), nikoli (=no)).

The effective root node of an interjectional clause has the functor PARTL (see Section 7.1.4, "PARTL"); an exception are the cases in which the interjectional clause is in the position of the nominative of identity (see Section 8.8, "Identifying expressions"). See also Section 6.4.3, "Connecting verbal and non-verbal clauses".

Examples:
Pardon.PARTL Fig. 6.31
Ano.PARTL (=Yes)
Aha. PARTL (=I see)
Haló.PARTL , tady jsem. (=Hello, here I am)
nápis Aha.ID (=the notice: I see)
NB! If the interjection has the function of a verbal predicate, the clause is considered verbal (see Section 6.4.1, "Verbal clauses").

For negative and affirmative particles (ano, ne, nikoli) see Section 8.13, "Expressions of negation and affirmation".

## Figure 6.28. Nominative clause

```
O
\
n.denot
fem.sg
b
düležitý
f_RSTR
adj.denot
pos.neg0
```

Důležitá událost. (=lit. Important event)

Figure 6.29. Nominative clause


Branky, body, vteřiny. (=lit. Goals, points, seconds)
Figure 6.30. Vocative clause


Jirko! (=lit. Jirka!)
Figure 6.31. Interjectional clause

```
O
root
O
pardon.enunc
t_PARTL
atom
```

Pardon.

### 6.4.3. Connecting verbal and non-verbal clauses

Verbal and non-verbal clauses can be combined in two ways: either by a dependency relation or by a non-dependency relation (paratactic connection).

Non-dependency. We distinguish several cases in which verbal and non-verbal clauses are combined in non-dependency relations:

- paratactic connection. The clauses are connected in a paratactic connection - coordination or apposition - if none is dependent on each other.

For the annotation rules regarding paratactic structures, see Section 6.6, "Parataxis".
The following cases are considered paratactic connections:

- verbal clause + verbal clause.

Examples:
Kočka je.PRED [is_member=1] savec, ale savcem je. PRED [is_member=1] i velryba. (=The cat is a mammal but the whale is a mammal as well)

Vime, že kočka je.PAT [is_member=1] savec a že savcemje.PAT [is_member=1] i velryba. (=We know that the cat is $\bar{a}$ mammal and the whale is a mammal as well)

- nominative clause + nominative clause.

Example:
Jan Novák.DENOM [is_member=1] , Brno.DENOM [is_member=1] Fig. 6.32
Na konec dopisu napsal: Jan Novák.EFF [is_member=1] , Brno.EFF [is_member=1] (=He wrote at the end of the letter: Jan Novák, Brno)

- vocative clause + vocative clause.

Example:
Milý Jirko.VOCAT [is_member=1], milý Petře.VOCAT [is_member=1] ! (=Dear Jirka, dear Petr!)

- interjectional clause + interjectional clause.

Example:
Cha.PARTL [is_member=1], cha.PARTL [is_member=1]. Fig. 6.33

- verbal clause + nominative clause.

Example:
Recenze.DENOM [is_member=1] knihy: Novou knihou jsou.PRED [is_member=1] Rozbité obrazy. (=Review: A new book is Rozbité obrazy) Fig. 6.34

A paknapsal: Recenze.EFF [is_member=1] knihy: Novou knihoujsou.EFF [is_member=1] Rozbité obrazy. (=And then he wrote: Review: A new book is Rozbité obrazy)

- vocative clause + interjectional clause.

Example:
$\underline{\text { Ach.PARTL [is_member=1] , Jirko.VOCAT [is_member=1]! (=Oh, Jirka!) }}$

- special non-dependency relations. A non-dependency connection of a verbal or nominative clause with an interjection or vocative clause is not considered a paratactic connection but rather a special non-dependency relation.

The effective root node of the interjectional or vocative clause is represented as dependent on the effective root node of the verbal or nominal clause. The fact that these are not real cases of dependency can be deduced from the used functor, i.e. PARTL or VOCAT.

The following cases, then, are represented in this way:

- verbal clause + interjectional clause.

Examples:
Ejhle.PARTL , to byla.PRED právě ta kapička. (=Oh, this was the droplet) Fig. 6.35
Zvolal: Ejhle.PARTL , to byla.PAT právě ta kapička. (=He cried: Oh, this was the droplet)

- verbal clause + vocative clause.

Examples:
Pane.VOCAT , nehodlám. PRED tu zůstat déle. (=Sir, I am not going to stay here any longer) Fig. 6.37

Odpověděl: Pane.VOCAT, nehodlám.EFF tu zůstat déle. (=He answered: Sir, I am not going to stay here any longer)
!!! At the moment, there is no way to distinguish cases where the noun in the vocative is identical in reference with the subject of the verbal clause (e.g.: Pane, vyslyš mě. (=Lord, answer my prayers)) from cases where there is no such identity in reference (e.g.: Pane, nehodlám tu zuistat déle. (Sir, I am not going to stay here any longer)).

- nominative clause + interjectional clause.

Examples:
Ach.PARTL , ta prožluklá jména.DENOM (=Oh, those bloody names!) Fig. 6.36
Zvolal: Ach.PARTL , ta prožluklá jména.PAT (=He cried: Oh, those bloody names!)

- nominative clause + vocative clause.

Example:
Jirko.VOCAT , voda.DENOM! (=Jirka, water!)
Zavolal: Jirko.VOCAT , voda.PAT! (=He called: Jirka, water!)

- parenthesis. Parentheses also constitute cases of non-dependency relations.

The effective root node of a parenthetical clause is represented as dependent on the node which is most directly linked to the parenthesis. The fact that this is no dependency relation can be seen from the functor assigned to the effective root node of the parenthetical clause; i.e. either PAR for a verbal or nominative clause, or VOCAT or PARTL for a vocative or interjectional clause).

For the annotation rules regarding parentheses, see Section 6.7, "Parenthesis".
Dependency. The basic type of clause connection that makes use of dependency relations is:

- complex sentence. A complex sentence is a connection of two or more verbal clauses, based on a dependency relation. I.e. the combination:


## - governing verbal clause + dependent verbal clause.

The effective root node of the dependent clause is assigned a functor according to the type of the dependency relation it has w.r.t. the governing clause.

For more on the annotation of dependent verbal clauses, see Section 6.5, "Dependent verbal clauses".

Special cases of dependency relations:

- dependent direct speech. All types of clauses can be used as direct speech, i.e. can occur in an argument position of a verb of saying etc.

The effective root node of the direct speech is assigned the functor corresponding to the relevant argument of the governing verb - if the direct speech is expressed by a verbal or nominative clause. If the direct speech is represented by a vocative or interjectional clause, the effective root node of the direct speech is a node for an empty verb and the effective root node of the clause is represented as dependent on the node.

For the annotation rules regarding direct speech, see Section 8.3, "Direct speech".

- the nominative of identity. All types of clauses can occur in the position of the nominative of identity.

The effective root node of any clause in the position of the nominative of identity has always the ID functor.

For detailed description of the rules see Section 8.8.1, "Basic rules for the annotation of identifying expressions".

Figure 6.32. Paratactic connection of two nominative clauses

```
O
```



Jan Novák, Brno.
Figure 6.33. Paratactic connection of two interjectional clauses


Cha, Cha.

Figure 6.34. Paratactic connection of a nominative and verbal clause


Recenze knihy: Novou knihou jsou Rozbité obrazy. (=lit. Review (of) book: New book is Rozbité obrazy)

Figure 6.35. Connection of an interjectional and verbal clause


Ejhle, to byla právě ta kapička. (=lit. Oh, this was just the droplet)
Figure 6.36. Connection of an interjectional and nominative clause


Ach, ta prožluklá jména. (=lit. Oh, those bloody names)

Figure 6.37. Connection of a vocative and verbal clause


Pane, nehodlám tu zuistat déle. (=lit. Sir, am_not_going here to_stay longer)

### 6.5. Dependent verbal clauses

The basic types of connecting verbal and non-verbal clauses by means of dependency and non-dependency relations are discussed in Section 6.4.3, "Connecting verbal and non-verbal clauses". The present section discusses the annotation of cases in which two verbal clauses are connected in a dependency relation (in a complex sentence).

In a complex sentence, the following are distinguished:

- governing clause.

The governing clause is a clause a modification of which (or the whole content of which) is modified by another clause.

- dependent clause.

A dependent clause is a clause modifying a modification (or the whole content) of another clause.
The effective root node of a dependent clause depends on the effective root node of the modified modification. If the dependent clause modifies the content of the whole governing clause, its effective root node depends on the effective root node of the governing clause.

Types of dependent verbal clauses. There are three types of dependent verbal clauses:

- content clause. A content clause stands for an argument of a modification in the governing clause (e.g. a verb, event noun etc.).

The effective root node of a content clause is assigned an argument functor.
A content clause can be connected by means of a subordinating conjunction, but also by a relative pronoun or adverb.

Examples of content clauses connected by means of subordinating conjunctions:
Řekl, $\leq$ že $>$ přijde.EFF (=He said that he was coming)

Otázka, $\leq z d a>$ přijde.PAT , nebyla zodpovězena. (=The question whether he was coming was not answered)

Examples of content clauses connected by means of relative pronouns or adverbs:
Zeptal se, kdo přijde. PAT (=He asked who was coming)
Otázka, $\underline{k d o} \underline{\text { prijde. PAT , nebyla zodpovězena. (=The question who was coming was not answered) }}$
Nevím, kam šel.PAT (=I don't know where he went)
The relative elements introducing content clauses (unlike with relative clauses) have no coreferred node in the governing clause. There is no coreference involved in these cases.

- adverbial clause. Adverbial clauses express especially temporal meanings, location/direction, manner and other circumstances of the governing clause or a modification of the governing clause.

The effective root node of an adverbial clause is assigned an adjunct functor. The effective root node of an adverbial clause usually depends on a verb (or a nominalization). In certain special cases (e.g. consecutive clauses, see Section 8.7, "Constructions with a dependent consecutive clause", dependent comparative clauses, see Section 8.4 , "Constructions with the meaning of "comparison"", dependent clauses with the meaning of a restriction, see Section 8.6.1, "Meaning of "restriction""), it can also depend on a different node.

Adverbial clauses can be introduced by a subordinating conjunction or relative adverb.
Examples of adverbial clauses connected by means of a subordinating conjunction:
$\leq K d y z ̌\rangle$ bude. COND hezky, puojdeme ven. (=If it is nice, we'll go out)
Nestihl to dokončit, $\leq$ protože $>$ nemél.CAUS dost času. (=He didn't manage to finish it because he didn't have enough time)

Examples of adverbial clauses connected by means of a relative pronoun or adverb:
Šel, kam ho nohy nesly.DIR3 (=He went where his feet took him)
Odejdu, $\underline{k d y}$ chci.TWHEN (=I'll leave when I want to)

- relative clause. Relative clauses modify a noun (phrase) in the governing clause.

The effective root node of a relative clause has the RSTR functor and depends on the effective root node of the noun phrase it modifies.

Relative clauses are introduced by relative pronouns or adverbs. The only exception are the relative clauses introduced by the connective $c o$; see Section 6.5.2.1, "Dependent clauses with the connective "co"".

Examples of relative clauses:
Otázka, která nebyla zodpovězena.RSTR , si žádá odpověd'. (=A question which was not answered calls for answering)

Misto, kam šel.RSTR , mi není známo. (=I don't know the place he went to)
Relative elements introducing relative clauses corefer with the noun they modify. There is a grammatical coreference relation between the relative pronoun and the modified noun (see also Section 9.2, "Grammatical coreference").

The following sections describe some rules for the annotation of dependent verbal clauses:

- the annotation of verbal clauses in which the finite verb form is missing at the surface level (see Section 6.5.1, "Dependent verbal clauses without a finite verb form"),
- distinguishing content and relative clauses (see Section 6.5.2, "Content vs. relative clauses"),
- clauses with so-called supporting expressions (see Section 6.5.3, "Supporting expressions"),
- false dependent clauses (see Section 6.5.4, "False dependent clauses").


### 6.5.1. Dependent verbal clauses without a finite verb form

Clauses that are considered verbal are described thoroughly in Section 6.4.1, "Verbal clauses". The present section offers more precise rules for the annotation of certain dependent verbal clauses that lack a finite verb form in their surface structure. These are:

- dependent infinitival constructions (see Section 6.5.1.1, "Dependent infinitival constructions"),
- dependent participial constructions (see Section 6.5.1.2, "Dependent participial constructions"),
- transgressive (gerund) constructions (see Section 6.5.1.3, "Transgressive (gerund) constructions"),
- constructions with adjectives connected by a subordinating conjunction (see Section 6.5.1.4, "Constructions with adjectives connected by a subordinating conjunction").

Ellipsis of the governing verb of a dependent clause. Dependent verbal clauses with the ellipsis of the governing verb are analyzed according to the rules in Section 6.12.1.1, "Ellipsis of the governing verb".

Example:
Řekl: Nač \{\#EmpVerb.EFF\} ten spěch? (=He said: Why the hurry?) Fig. 6.38
Oslava se vydařila, protože Jirka hrál.CAUS na kytaru a Hana \{ hrát.CAUS\} na klavir. (=The party was good because Jirka played the guitar and Hanka the piano)

Figure 6.38. Dependent clause with ellipsis of the governing verb


Ǩekl: Nač ten spěch? (=lit. (He) said: Why the hurry?)

### 6.5.1.1. Dependent infinitival constructions

If there is an infinitive in place of a finite verb form in a dependent clause, the node for the infinitive is the effective root node of the dependent clause.

Infinitival constructions can be both valency modifications of a word in the governing clause (a content clause) or they can express various adverbial meanings (an adverbial clause). A special case is an infinitival construction expressing a condition (see Section 6.5.1.1.1, "Condition expressed by an infinitive"). Special rules apply in case of frozen infinitival constructions - see Section 6.5.1.1.2, "Frozen infinitival constructions".

The infinitive is assigned a valency frame.
NB! Infinitival constructions often depend on a control verb or noun; the subject of the infinitive is then controlled by a valency modification of the verb or noun. The newly established node for the controllee has the t-lemma substitute \#Cor (see Section 9.2.4, "Control"). If there is no control involved, the newly established node for the subject of the infinitive has the \#Gen t-lemma. However, it can also have the \#PersPron t-lemma if it is possible to determine the reference of the subject from the context (cf. Table 9.4, "Subjects of infinitives: possible t-lemmas").

Possible modal meanings of the infinitival construction are encoded in the appropriate grammatemes (see Section 5.5.10, "The deontmod grammateme (deontic modality)").

## Examples:

Máš dvě možnosti, jak získat.PAT penize. (=You have two possibilities how to get money) Fig. 6.39

Rodiče se dozvěděli, jak s ditětem zacházet. PAT (=The parents learned how to treat the child) Fig. 6.40

Nevím, kam jút. $\cdot$ PAT ( $=I$ don't know where to go)
$\leq$ Jestliže $>$ odejít.COND, tak hned. (=lit. If to leave, so immediately; meaning: if we are supposed to leave...) Fig. 6.41

Infinitival constructions usually express modal meanings (the construction is a wish, exclamation etc.) Cf.:

- Nevím, kam jít.
$=I$ do not know where I shall/should/must go.
- Rodiče se dozvěděli,jak s dítětem zacházet.
$=$ The parents learned how they shall/should/must treat the child.
!!! The modal meanings of infinitival constructions have not been captured in PDT so far: the nodes representing the infinitive have the decl value in their deontmod grammateme (see Section 5.5.10, "The deontmod grammateme (deontic modality)")


## Figure 6.39. Dependent infinitival construction



Máś dvě možnosti, jak získat peníze. (=lit. (You) have two possibilities how to get money)

Figure 6.40. Dependent infinitival construction


Rodiče se dozvěděli, jak s ditětem zacházet. (=lit. Parents REFL learned how with child to_treat)
Figure 6.41. Dependent infinitival construction


Jestliže odejít, tak hned. (=lit. If to_leave then immediately)

### 6.5.1.1.1. Condition expressed by an infinitive

A special case of dependent infinitival constructions are infinitival constructions expressing a condition, which are connected to the governing clause without the use of a subordinating conjunction.

The infinitive gets the functor COND.
!!! The verbmod grammateme of the infinitive (see Section 5.5.9, "The verbmod grammateme (verbal modality)") should get the cdn value; nonetheless, the assigned value is ind so far.

There is no grammatical coreference involved. The newly established node for the subject of the infinitive has the t-lemma substitute \#Gen or \#PersPron. The subject of the infinitive can also be present on the surface.

Examples:
Nebýt.COND vás, nebyl bych tady. (=If it wasn't for you (lit. Not_to_be you), I wouldn't be here) Fig. 6.42

Já tam být.COND, tak se to vyřešilo. (=If I was there (lit. I to_be there), the problem would be solved) Fig. 6.43

Nenastat.COND ten problém, ještě bych tam pracoval. (=If it wasn't for the problem (lit. Not_to_happen the problem) I would still work there)
(Já/On) Nenapsat.COND tu knihu, nic by po něm nezůstalo. (=If I/he didn't write (=lit. Not_to_write) the book he would leave here nothing)

Být.COND tu Honza, tak jsme toho udělali, mnohem víc. (=If Honza had been here (lit. To_be here Honza) we would have done much more)

Figure 6.42. Condition expressed by an infinitive


Nebýt vás, nebyl bych tady. (=lit. Not_to_be you, not_was AUX (I) here)

Figure 6.43. Condition expressed by an infinitive


Já tam být, tak se to vyřešilo. (=lit. I there to_be, so REFL it solved)

### 6.5.1.1.2. Frozen infinitival constructions

Some infinitival constructions are lexicalized to such an extent that they are considered adverbs (sempos=adv), with limited valency requirements.

Frozen verbal (not only infinitival) constructions are often taken to be non-verbal idioms (phrasemes; see Section 6.8.2, "Verbal idioms").

The $t$-lemma of such a frozen infinitive is equal to its surface form (i.e. including e.g. the negative particle $n e$ ). The frozen infinitive gets a functor according to its position in the sentence.

Example:
Přijdu,co.DPHR nevidět.TWHEN (=I'll come very soon; lit. what not_to_see) Fig. 6.44

Figure 6.44. Frozen infinitival construction


Přijdu, co nevidět. (=lit. (I) will_come what not_to_see)

### 6.5.1.2. Dependent participial constructions

Regular (agreeing) dependent participial constructions are analyzed as:

- argument.

The effective root node of the participial construction gets an argument functor if it occupies a valency position. The argument position always corresponds to that of the traditional predicative complement, i.e. it is a dual dependency argument position Section 6.1.2, "Non-dependency edges").

Example:
Zůstává inspirován. PAT článkem. (=He remains (to be) inspired by the article)

- predicative complement.

If the participial construction occupies a non-valency position, it is not introduced by a connective and expresses no adverbial meanings, it is analyzed as a predicative complement.

For the annotation rules regarding predicative complements, see Section 6.10, "Predicative complement (dual dependency)".

Examples:
Profesor, inspirován.COMPL článkem, přednášel o nových problémech. (=The professor, inspired by the article, had a lecture on the new issues) Fig. 6.45

Profesor přednášel o nových problémech, inspirován.COMPLčlánkem .(=The professor had a lecture on the new issues, inspired by the article)

- adverbial clause.

Exceptionally, the participial construction can also have adverbial meanings, especially if introduced by a subordinating conjunction.

## Example:

Dům, ač zadlužen. CNCS, byl prodán velmi rychle . (=The house, although indebted, was sold very quickly) Fig. 6.46

The effective root node of the dependent participial construction always depends on a verb; its t-lemma is equal to the infinitive and it has an appropriate functor. The participle is assigned a valency frame. The subject of the participle is always in a grammatical coreference relation with the subject of the governing verb (see Section 9.2.3, "Coreference with verbal modifications that have dual dependency").

## Figure 6.45. Dependent participial construction



Profesor, inspirován článkem, přednášel o nových problémech. (=lit. Professor, inspired by_article, had_lecture on new issues)

Figure 6.46. Dependent participial construction


Dům, ač zadlužen, byl prodán, velmi rychle. (=lit. House, athough indebted, was sold very quickly)
Participial construction vs. adjective phrase. Participial constructions cannot be always distinguished from adjective phrases with the short forms of the adjective due to the surface identity of the participle and the short form of the adjective. These cases are usually treated as participial. An exception are the constructions expressing the resultant state (see Section 8.2.2.1, "Verbonominal predicate vs. periphrastic passive").

These cases are analyzed as adjective phrases. Cf.:

- Prezident, přesvědčen.RSTR, že vláda neplní své povinnosti, svolal tiskovou konferenci. [ t lemma=přesvědčený; sempos=adj. denot] (=The president, convinced that the government is not doing what it should...)
= Prezident se přesvědčil, že vláda neplní své povinnosti. (=The president convinced himself that the government is not doing what it should)

The construction does not have the meaning: "somebody convinced the president that ..", but: "the president convinced himself that...".

More examples:
Prezident zůstává přesvědčen.PAT, že vláda neplní své povinnosti. [ $\mathrm{t}-1 \mathrm{lemma}=$ přesvědčený; sempos=adj. denot] (=The president remains convinced that...)

Prezident svolal tiskovou konferenci, přesvědčen.COMPL, že vláda neplní své povinnosti. [ $\mathrm{t}-1 \mathrm{emma}=$ přesvědčený; sempos=adj. denot] (=The president called a press conference, convinced that...)

The effective root node of the adjective phrase has an argument functor - if it occupies a valency position. If it occupies a non-valency position, it has either the RSTR functor (if it is an attribute) or the COMPL functor (if it is a predicative complement); what is crucial is the position of the adjective phrase in the surface form of the sentence (see Section 6.10, "Predicative complement (dual dependency)").

It is necessary to decide whether a given form is an adjective or participle also in the positions after "být"(=be), see Section 8.2.2.1, "Verbonominal predicate vs. periphrastic passive".
!!! These decisions were made only for the tectogrammatical level. At the morphemic level, expressions like přesvědčen, unaven, připraven etc. are always considered verb forms.

### 6.5.1.2.1. Non-agreeing participial constructions

Non-agreeing (incongruent)participial constructions, so called discontinuous participles, are analyzed as conditional clauses.

The effective root node of the dependent construction (the node for the participle with the t-lemma equal to the infinitive) has the functor COND and the value of its is_parenthesis attribute is 1 . The value 1 is filled in the is_parenthesis attribute at all the nodes representing the expressions of the dependent construction.

The participle is assigned a valency frame. There is usually one valency modification missing from the arguments of the participle - it is expressed by the governing clause. If this is the case the newly established node for the missing valency modification has the t-lemma substitute PersPron. There is a coreference relation between the newly established node and the effective root node of the governing clause. If such a coreference relation is not possible, the nodes for the non-expressed arguments of the participle get the \#Gen t-lemma.

The way participial constructions are analyzed is parallel to the way constructions with an inversed syntactic relation are (see Section 6.7.3.1, "Inversed syntactic relation between clauses"). Because of its meaning the participial construction (its effective root node) gets the COND functor, not PAR, as is the case with the inversed syntactic relation. Only in those cases when the COND functor is not possible (due to semantic reasons), the effective root node of the participial construction is assigned the PAR functor.

Examples:
Upřimněrrečeno.COND , vybrala si špatného partnera. [is_parenthesis=1] (=Frankly speaking, she didn't choose the right partner) Fig. 6.47

Dobře počitáno.COND, nebyla to pravda. [is_parenthesis=1] (=lit. Well counted, wasn't it true) Fig. 6.48

Figure 6.47. Non-agreeing participial construction


Upřimně řečeno, vybrala si špatného partnera. (=lit. Frankly told, (she) chose REFL bad partner)
Figure 6.48. Non-agreeing participial construction


Dobře počitáno, nebyla to pravda. (=lit. Well counted, not_was it truth)

### 6.5.1.3. Transgressive (gerund) constructions

Agreeing (congruent) transgressives (the subjects of which are identical to the subjects of the governing verbs) are analyzed as predicative-complement constructions.

The effective root node of a transgressive construction (the node representing the transgressive) has the t-lemma identical to the infinitive, the COMPL functor and it always depend on a verb. The transgressive is assigned a valency frame (for the t-lemmas of the subject see also Section 9.2.3, "Coreference with verbal modifications that have dual dependency"). The subject of the transgressive is always in a grammatical coreference relation with the subject of the governing verb (see Section 9.2.3, "Coreference with verbal modifications that have dual dependency").

For the annotation rules regarding predicative complements, see Section 6.10, "Predicative complement (dual dependency)".

Example:
Odešel, maje.COMPL vztek na celýsvět (=He left, being mad at the whole world).

### 6.5.1.3.1. Frozen transgressive constructions

Frozen non-agreeing transgressives (the subject of the transgressive does not agree with the subject of the governing) are considered adverbs (sempos=adv) with limited valency requirements.

The t-lemma of a frozen transgressive is its surface form (and not the infinitive). The frozen transgressive gets a functor according to its position in the sentence.

Frozen verbal (not only transgressive) constructions are often taken to be non-verbal idioms (phrasemes; see Section 6.8.2, "Verbal idioms").

Especially the following expressions can be found as frozen transgressives:
takřka (=almost)
takříkajíc (=so_to_speak)
$\underline{\text { stoje }}(=$ standing $) ;$ leže ( $=$ lying) $; \underline{\text { kleče }}$ (=kneeling); seděe $(=$ sitting); vstoje (=standing); vleže (=lying); vkleče (=kneeling); vsedě (=sitting)
vstávaje (=getting_up); lehaje (=lying_down)
chtě nechtě.DPHR (=willy nilly)
chtic nechtic.DPHR (=willy nilly)
soudic (=judging); soudě co.PAT podle čeho.CRIT (=judging sth according to sth)
soudic (=judging); soudě co.PAT podle čeho.CRIT (=judging sth according to sth)
nehledićc (=disregarding); nehledě $k$ čemu.РAT (=disregarding the fact that...)
nehledic; nehledě na co.PAT (=disregarding the fact that...)
nemluvě o čem.PAT (=not_to_mention sth)
vycházejíc; vycházeje z čeho.PAT (=supposing that...)
zahrnujíc; zahrnuje co.PAT kam.DIR3 (=including sth somewhere)
nedbajíc; nedbaje čeho.РAT (=disregarding sth)
ne/počitajic; ne/počítaje co.PAT kam.DIR3 (=not_counting sth)
vvimouc; vviímajic; vyiímaje co.PAT z.DIR1 (=excepting sth from sth)
Examples:
Soudě.COND podle ministra zahraničí, je to špatný výkon. (=Judging from what the Foreign Secretary says, it is a bad performance) Fig. 6.49

Spotřeba je mnohem větší, o cenách ani nemluvě.CNCS (=The consumption is much higher, not to mention the prices) Fig. 6.50

Frozen transgressives used as prepositions. Some transgressives have lexicalized to such a degree that it is difficult to assign a functor to them - they can only be interpreted with the modification they form a unit with. They are considered secondary prepositions although their position with respect to the noun (phrase) is not strictly given. These are:
vyjma+4 (RESTR) (=except)
končíc+7 (TTILL) (=ending with)
konče +7 (TTILL) (=ending with)
počinajíc+7 (TSIN) (=starting with)
počinaje+7 (TSIN) (=starting with)
Expressions like počínaje +7 , počinajíc +7 , konče +7 , končíc +7 can also be used as operators (see Section 8.11, "Mathematical operations and intervals").

Example:
Pozvali všechny přibuzné $\leq \underline{\text { vpima }} \mathbf{>}$ jeho bratra RESTR (=They invited all relatives, except for his brother) Fig. 6.51

## Figure 6.49. Frozen transgressive construction



Soudě podle ministra zahraničí, je to špatný výkon. (=lit. Judging according_to minister (of) foreign_affairs is it bad performance)

Figure 6.50. Frozen transgressive construction


Spotřeba je mnohem větší, o cenách ani nemluvě. (=lit. Consumption is much bigger, about prices even not_to_speak)

Figure 6.51. Transgressives as prepositions


Pozvali všechny přibuzné, vyjma jeho bratra. (=lit. (They) invited all relatives, except his brother)

### 6.5.1.4. Constructions with adjectives connected by a subordinating conjunction

If an adjective modifying some other modification is connected (to the modification) by a subordinating conjunction, the conjunction + the adjective are considered a dependent verbal clause in which the verb is not expressed on the surface.

Thus, a new node is inserted into the structure in the position of the verb (\#EmpVerb) and it gets a functor reflecting the meaning of the conjunction. The node representing the adjective depends on the empty verb as its Patient. The whole clause modifies another adjective or an entire noun phrase.

Examples:
Má sviou hluboký, <přestože> \{\#EmpVerb.CNCS\} zkarikovaný.PAT smysl. (=It has got its deep, although twisted meaning) Fig. 6.52

Není moudré rozházet si to $\leq$ byt' $>s\{\#$ EmpVerb.CNCS\} potenciálním. PAT významným politikem. (=It is not wise to antagonize an important politician, though just a potential one) Fig. 6.53

Mĕřit něco platným, <byt’> \{\#EmpVerb.CNCS\} spleteným.PAT zákonem. (=To use a valid, though bad law)
levné, $\leq$ protože $>\{\# E m p V e r b . C A U S\}$ nepotřebné.PAT zboži (=cheap-because useless - goods)
Figure 6.52. Adjective connected by a subordinating conjunction


Má sviơ hluboký, přestože zkarikovaný smysl. (=lit. (It) has its deep, though caricatured meaning)

Figure 6.53. Adjective connected by a subordinating conjunction


Neni moudré rozházet si to byt's potenciálním významným politikem. (=lit. (It) not_is wise to_make_wrong REFL it though with potential important politician)

### 6.5.2. Content vs. relative clauses

With some dependent clauses introduced by a relative pronoun it is necessary to decide whether the given clause is a relative or content clause. This situation arises especially in the following two cases:

- the dependent clause potentially modifies the pronoun ten: this pronoun is either a supporting expression and the dependent clause is a content clause, or else, ten stands in place of a noun and the dependent clause is a relative clause. Cf .:
- Přemýšlel o tom, kdo přijde. (=lit. (He) thought about that who is_coming)
- $=$ He thought about the person who was coming.

In this case, the dependent clause is a relative clause.

- = He was thinking about (the question) whether this one or that one was coming).

With this interpretation, the dependent clause is a content clause.
For more on the competition between content and relative clauses potentially modifying ten, see Section 6.5.3.1, "Correlative pairs with the supporting expression "ten"".

- the dependent clause modifies a noun and either stands in the position of one of its valency modifications (content clause) or it just says something about the noun (specifies a quality/property; relative clause).

If a dependent clause introduced by a relative pronoun modifies a noun with valency requirements, we use the definitions of content and relative clauses in Section 6.5, "Dependent verbal clauses" to determine which type we are dealing with in the particular case: content clauses occupy the position of one of the noun's arguments; relative clauses only further specify the noun. Cf.:

- Otázka, která nebyla položena.RSTR, nemůže být zodpovězena. (=The question which wasn't asked cannot be answered)

The dependent clause is a relative clause.

- Otázka, která malba je.PAT nejvydařenější, nemůže být zodpovězena. (=The question which painting is the best cannot be answered)

The dependent clause is a content clause.

- Informace, které jsme ziskali.RSTR, nám nepomohly. (=The information we got didn't help us)

The dependent clause is a relative clause.

- Informace, které úvěry jsou. PAT výhodné, nám nepomohly. (=The information which bank loans are better didn't help us)

The dependent clause is a content clause.
In unclear cases, the knowledge of the context is decisive. Cf.:

- Informace, která je..RSTR nejdůležitější, nesmí být zapomenuta. (=lit. Information which is the_most_important mustn't be forgotten)
$=$ The most important information must not be forgotten.
With this interpretation, the dependent clause is a relative clause.
- Informace, která je. PAT nejdůležitější, nesmí být zapomenuta.
$=$ The information which thing is the most important must not be forgotten.
With this interpretation, the dependent clause is a content clause.
For the consequences of distinguishing content from relative clauses for the pronouns "ktery" and "jaký" see Section 8.1.2, "Pronouns in the role of a syntactic adjective or noun".


### 6.5.2.1. Dependent clauses with the connective "co"

The connective $c o$ is used with content, relative as well as adverbial clauses.
Distinguishing content and relative clauses with the connective $c o$ follows the rules in the first paragraphs of Section 6.5, "Dependent verbal clauses" and Section 6.5.2, "Content vs. relative clauses". It is not possible to use the information regarding the part-of-speech character of the connective. Co can be
either considered a subordinating conjunction or relative pronoun. If $c o$ is a modification of the dependent clause main verb, it is a relative pronoun; if not, it is a subordinating conjunction.
"Co" introducing an adverbial clause If co introduces an adverbial clause, it is considered a subordinating conjunction.

For example:
$\leq C o\rangle$ odešli.TSIN , je tu klid. (=Since they left, it's been so calm here)
"Co" introducing a relative clause If $c o$ introduces a relative clause, it can belong to two different part-of-speech categories:

- it is a relative element.
$C o$ is a relative pronoun if it corefers with the noun the dependent clause modifies. There is a grammatical coreference relation between co and the noun in the governing clause (marked in the tree).

Examples:
Mluvil o těch, co.ACT přišli.RSTR (=He was talking about those who came)
Dostal jsem knihu, co. PAT jsem už četl.RSTR (=I got a book which I had read before)
Člověk, co.ACT kráčí.RSTR po chodniku, je můj známý. (=The man who is walking on the pavement is someone I know)

Žena, co. PAT potkal.RSTR na schodech, nosí krátké sukně. (=The woman he met on the stairs wears short skirts)

V okamžiku, co.TWHEN jsem ho spatřil.RSTR, upadl na zem. (=At the very moment I saw him he fell on the ground)

- $c o$ is a subordinating conjunction.

Co is a subordinating conjunction in those relative clauses in which there is a pronoun coreferring with the modified noun in the dependent clause (in the appropriate form). Co is, then, not a modification of the verb but it rather just connects the clauses (and is not assigned a separate node, just like other subordinating conjunctions). The relative clause is introduced by a subordinating conjunction in this case, despite the definition of relative clauses in Section 6.5, "Dependent verbal clauses"!

Examples:
Ten kluk, $\leq \operatorname{coD} \geq$ ho.PAT Jirka potkal.RSTR , bydlív naší ulici. (=lit. That boy what/that him Jirka met lives in our street)

Dostal jsem knihu, $\leq$ co $>$ jsem ji.PAT už četl.RSTR (=lit. (I) got book what/that (I) have it already read)

Schránku, $\leq c o>$ do ní.PAT hodil.RSTR dopis, už vybrali. (=lit. Post-box.ACC what/that into it (he) threw letter (they) already emptied)

Žena, $\leq c o>j i . \mathrm{PAT}$ potkal.RSTR na schodech, nosí krátké sukně. (=lit. Woman what/that (he) her met on stairs wears short skirts)
"Co" introducing a content clause. Co introducing content clauses is always a relative pronoun; it is always a modification (of the verb) in the dependent clause.

Examples:
Přemýšlela, co. PAT si vezme.PAT na sebe. (=She was thinking about what she was going to wear)
Neuměla vysvětlit, co.PAT udělala.PAT (=She couldn't explain what she did)
NB! With content clauses, co often combines with the suppporting pronoun ten (see Section 6.5.3.1, "Correlative pairs with the supporting expression "ten""), e.g.:

Přemýšlela <o tom>, co. PAT si vezme.PAT na sebe. (=lit. (She) was_thinking about that what (she) is_going_to_wear --)

Neuměla vysvětlit $<$ to>, co.PAT udělala.PAT (=lit. (She) couldn't explain that what (she) did)
NB! Ten preceding a content clause is to be distinguished from ten substituting the noun modified by a relative clause (see also Section 6.5.3.1, "Correlative pairs with the supporting expression "ten'"'). Cf.:

- Mluvil o těch.PAT, co.ACT přišli.RSTR (=He talked about those who came)

Ten stands for the noun modified by a relative clause. The effective root node of the relative clause depends on ten.

- Neuměla vysvětlit $\leq$ to $>$, co. PATudělala.PAT (=She wasn't able to explain what (lit. that what) she had done)

The pronoun ten is a supporting expression and the dependent clause is a content clause (its effective root node depends on the main verb of the governing clause).

### 6.5.3. Supporting expressions

Dependent clauses can be connected not only by means of conjunctions or relative elements but the governing clause can also contain a so called supporting expression. Supporting expressions are pronominal expressions referring to the following dependent clause which show the function (functor) of the dependent clause (by being used in a specific case or prepositional phrase); e.g.:

Znepokojil se $\leq$ tím $>$, <že $>$ nepřišla.MEANS (=He was worried by the fact (that.INSTR) she hadn't come)
jednání $\leq$ o tom $>$, co.PAT budeme dělat.PAT (=lit. discussion on that what (we) were_going to_do)
If the function of the dependent clause is obvious even without the supporting expression, it is usually optional. Cf.:

- Přemýšlel $\leq 0$ tom $>, \leq z d a \geq$ tam půjde.PAT (=lit. (He) was_thinking about that whether (he) there will_go)
- Přemýšlel, $\leq z d a \geq$ tam pưjde.PAT (=lit. (He) was_thinking whether (he) there will_go)

If the function of the dependent clause is not obvious, the use of the supporting expression is obligatory. Cf.:

- $\leq$ Podle toho $>$, co.EFF o něm vime.CRIT, to není vhodný kandidát. (=lit. According_to that what (we) about him know, it isn't good candidate)
- Mluvil $\leq$ o tom $>$, kdo.ACT s nim spolupracuje.PAT (=lit. (He) was talking about that who with him cooperates)

The possibility or necessity of using the supporting element follows from the functor of the dependent clause (in the case of adverbial clauses) or from the surface form specification in the valency frame of the governing verb (in the case of content clauses).
!!! Valency frames do not contain the information regarding the optionality/obligatoriness of the supporting expression in the current version of PDT. The im-/possibility to express an argument by a dependent clause is not specified either.

Supporting expressions are not assigned a separate node in the tree (they are hidden). The reference to a supporting expression is in the a/aux.rf attribute of the effective root node of the dependent clause.

The effective root node of the dependent clause is assigned a functor depending on the supporting expression and the connective and depends on the effective root node of the governing clause.

Correlative pairs. A supporting expression + connective form a correlative pair. These correlative pairs can be divided into two groups depending on whether the second part is a relative pronoun (adverb) or a subordinating conjunction:

- supporting expression + conjunction.

In this case, the whole correlative pair is hidden: the a/aux.rf attribute of the effective root node of the dependent clause contains the references to both the supporting expression and the subordinating conjunction.

- supporting expression + relative element.

In this case only the supporting expression is hidden: the a / aux.rf attribute of the effective root node of the dependent clause contains a reference to it. The relative element is always represented by a separate node.

Rhematizer adjacent to the supporting expression. If the governing clause contains a rhematizer (next to the supporting expression), it is represented as a left sister of the effective root node of the dependent clause in the tree; e.g.:

Přijde jen.RHEM $\leq t e h d y>, \leq k d y z ̌>m u$ ustoupišs.TWHEN (=He's only coming in case you give in to him)

The following subsections are devoted to the description of constructions with individual types of supporting expressions; these are also distinguished from constructions in which there are similar pronominal expressions but those are not considered supporting expressions. There are the following basic types of correlative pairs:

- correlative pairs with the supporting expression "ten" (see Section 6.5.3.1, "Correlative pairs with the supporting expression "ten'""),
- correlative pairs with the supporting expression "takový" (see Section 6.5.3.2, "Correlative pairs with the supporting expression "takový""),
- correlative pairs with pronominal locative/directional adverbs as supporting expressions (see Section 6.5.3.3, "Correlative pairs with pronominal locative/directional adverbs used as supporting expressions"),
- correlative pairs with pronominal temporal adverbs as supporting expressions (see Section 6.5.3.4, "Correlative pairs with temporal pronominal adverbs as supporting expressions"),
- correlative pairs with other pronominal adverbs as supporting expressions (see Section 6.5.3.5, "Correlative pairs with other pronominal adverbs used as supporting expressions"),


### 6.5.3.1. Correlative pairs with the supporting expression "ten"

The most common supporting expression is the demonstrative pronoun ten. The pronoun ten is considered a supporting expression only if it precedes a content or adverbial clause (not a relative clause; for the distinction see Section 6.5.2, "Content vs. relative clauses"). If the pronoun ten precedes a relative clause it is a regular modification, represented by a separate node in the tree, and the effective root node of the dependent clause depends on it.

Examples of sentences with the supporting use of "ten":
Neuměla vysvětlit $\leq$ to $>$ co. PAT udělala.PAT (=She wasn't able to explain what (lit. that what) she had done) Fig. 6.54

Bavil se $\leq$ tím>, $\leq \check{z} e>$ přišla.MEANS (=He was amused by the fact that (lit. by_that that) she came) Fig. 6.55

Koupili dvě sady lega $s \leq$ tím>, <že $>$ dají.ACMP každému synovi jednu. (=They bought two sets of lego, planning to give one to each of their sons; lit. with that that they give...)

Přemýšlel $\leq 0$ tom $>, \leq z ̌ e>$ tam půjde. PAT (=He was thinking about going there; lit. about that that he...)

Unclear (homonymous) cases are analyzed with the help of context: the dependent clause either is a content clause and ten is a supporting expression, or it is a relative clause and ten is represented by a separate node in the tree. Cf .:

- Přemýšlel o tom, kdo přijde. (=He was thinking about the one who was coming)
$=$ He was thinking about the person who was coming.
With this interpretation, the dependent clause is a relative clause, its effective root node has the RSTR functor and depends on ten.
- Přemýšlel o tom, kdo přijde. (=He was thinking about who was coming)
$=$ He was thinking about (the question) whether this one or that one was coming.
With this interpretation, the dependent clause is a content clause, its effective root node has the PAT functor and depends on přemýšlet; the pronoun ten is a supporting expression in this case and is not assigned a separate node.

Correlative pairs "čím" -"tím". A special type of correlative pair with ten is the pair čím - tím, e.g.:
Čím.DIFF je.DIFF vino starší, $\leq$ tím $\geq$ je lepši. (=The older the wine the better)
This type of construction is described in Section 8.5, "Specific constructions with the meaning of "difference"".

Cleft structures. With so called cleft sentences, ten is not considered a supporting expression but it is rather a full lexical item, represented by a separate node in the tree; the relative clause depends on it and its effective root node has the RSTR functor.

Examples:
Je to.PAT Izrael.ACT, kdo brzdí.RSTR mirový proces (=It is Izrael who is slowing down the peace process).

Byli to. PAT českoslovenští občané.ACT, kteří hynuli.RSTR v koncentračních táborech. (=It was Czechoslovak citizens who died in the concentration camps)

Figure 6.54. The supporting expression "ten"


Neuměla vysvětlit to, co udělala. (=lit. (She) couldn't explain that what (she) did)
Figure 6.55. The supporting expression "ten"


Bavil se tím, že přišla. (=lit. (He) was_amused REFL by_that that (she) came)

### 6.5.3.2. Correlative pairs with the supporting expression "takový"

The expression takový is a supporting expression usually when preceding dependent predicative and relative clauses, which are mostly introduced by jaký.

Examples:
Přidělili nám vedouciho $\leq$ takového $>$, jaký.ACT se jim hodil.RSTR (=They gave us such a boss they found convenient for them) Fig. 6.56

Podpora jeho strany je $\leq$ taková>, jaká.PAT opravdu je.PAT (=His party is getting the support it is getting) Fig. 6.57

Dostal jsem knizzzu <takovou>, jakou .PAT jsem chtěl.RSTR (=I got a book I wanted; lit. book such which (I) AUX wanted)

In those constructions in which takový precedes a relative clause (on its own, without modifying a noun), it is necessary to consider the possibility that it plays a role of a noun ( see Section 8.1.2, "Pronouns in the role of a syntactic adjective or noun"):

- "takový" is a syntactic noun

If takový plays a role of a noun, it is not hidden like supporting expressions and the relative clause depends on it.

Example:
Jsou tací.ACT , kteří rádi hladovějí.RSTR (=There are such (people) who like to starve)

- "takový" is a syntactic adjective.

If takový plays a role of an adjective it is considered a supporting expression and the relative clause depends on a newly established (usually copied) node for a noun.

## Example:

Máme hodně studentů, ale potřebovali bychom <takové> \{ student.PAT\}, kteří by byli.RSTR vzdělaní v nějakém ekonomickém oboru (=...we would need such students that would be educated in...)

Figure 6.56. The supporting expression "takovy'"


Přidělili nám vedoucího takového, jaký se jim hodil. (=lit. (They) assigned us boss such which REFL to_them was_convenient)

Figure 6.57. The supporting expression "takový"


Podpora jeho strany je taková, jaká opravdu je. (=lit. Support (of) his party is such what (it) really is)
"Takový" is not a supporting expression. Takový is not considered a supporting expression when preceding a consecutive clause introduced by the conjunction $\check{z} e$. In this kind of construction, the effective root node of the dependent clause has the functor RESL and depends on takový (see also Section 8.7, "Constructions with a dependent consecutive clause").

Examples:
Vedoucí je takový.PAT, že ho obdivujeme.RESL (=The boss is such that we admire him)
On je vedoucí.PAT takov́́.COMPL, že jim ho závidime.RESL (=He is such a boss that we envy them)

### 6.5.3.3. Correlative pairs with pronominal locative/directional adverbs used as supporting expressions

Pronominal locative and directional adverbs (tam, odtud, tudy) form correlative pairs mainly with relative elements ( $k d e$, kam, odkud, kudy); only marginally with conjunctions. There are e.g. the following pairs:

- pronominal locative/directional adverbs + relative elements:
- the role of the pronominal adverb and the relative element is identical:

```
tam - kam (=there - where.dir)
tam - kde (=there - where.loc)
odtud - odkud (=from there - from where)
```

tudy - kudy (=that way - which way)

- the role of the pronominal adverb differs from the role of the relative element:

$$
\begin{aligned}
& \text { tam - kudy (=there }- \text { which way } \\
& \text { tam }- \text { odkud (=there }- \text { from where })
\end{aligned}
$$

- locative/directional pronominal adverbs in a correlative pair with a conjunction::

$$
\begin{aligned}
& \text { tam -co }(=\text { there }- \text { that }) \\
& \text { tudy }-\operatorname{co}(=\text { that way }- \text { that })
\end{aligned}
$$

Locative and directional pronominal adverbs in the governing clause are only considered a supporting expression if the role of the relative adverb in the dependent clause is the same or if the dependent clause is introduced by a conjunction. Then, the effective root node of the dependent clause depends on the effective root node of the governing clause and is assigned a locative or directional functor (see Section 7.4, "Locative and directional functors").

Examples:
Šel jen $\langle$ tam $\rangle$, kam.DIR3 ho pozvali.DIR3 (=He only went (there) where he was invited) Fig. 6.58
Díval se $\leq$ odtamtud $>$, odkud.DIR1 se vždycky dívám. DIR1 já. (=He was looking from the same place (which) I always look from) Fig. 6.59

Šel $\leq$ tam $>$, kam.DIR3 ho nohy nesly.DIR3 (=He went (there) where his legs took him)
pozvánka $\leq$ tam $>$, kam.DIR3 nikdy nepojedeme.DIR3 (=an invitation to a place (lit. there) which (lit. where) we'll never go to)

Vidĕl jsem ho $\leq$ tam $>, \leq \mathrm{co}\rangle$ jsem ho potkal.LOC minule. ( $=$ I saw him at the same place (lit. there what) I met him last time)

Figure 6.58. Locative and directional pronominal adverbs used as supporting expressions


Šel jen tam, kam ho pozvali. (=lit. (He) went only there where (they) him invited)
Figure 6.59. Locative and directional pronominal adverbs used as supporting expressions


Dívala se odtamtud, odkud se vždycky divám já. (=lit. (She) looked REFL from_there from_where REFL always look I)

The locative/directional pronominal adverb is not a supporting expression. If the adverbial expressions have different functions (in the governing and dependent clauses), the pronominal adverb in the governing clause is not considered a supporting expression; each adverbial expression is represented by a separate node. The effective root node of the dependent clause depends on the node for the pronominal adverb in the governing clause and is assigned the RSTR functor.

Example:
Dívala se tam.DIR3, odkud.DIR1 ses ozval.RSTR (=She was looking in the direction from which (lit. there from_where) she heard you) Fig. 6.60

Figure 6.60. The locative/directional pronominal adverb is not a supporting expression


Divala se tam, odkud ses ozval. (=lit. (She) looked REFL there from_where (you) AUX_REFL made_noise)

### 6.5.3.4. Correlative pairs with temporal pronominal adverbs as supporting expressions

Temporal pronominal adverbs form correlative pairs both with relative elements and conjunctions. One can find especially the following correlative pairs:

- temporal pronominal adverb + relative element:
- the function of the pronominal adverb and the relative element is identical:

$$
\begin{aligned}
& \text { tehdy }-k d y \text { (then - when) } \\
& \text { dotehdy - dokdy (=until_then - until_when) }
\end{aligned}
$$

> odtehdy - odkdy (=from_then - from_when)
potud -pokud (=until_then-until_when)

- the function of the pronominal adverb differs from the function of the relative element:

$$
\begin{aligned}
& \text { odtehdy - kdy (=since_then - when) } \\
& \text { dotehdy -kdy (=until_that_time - when) }
\end{aligned}
$$

- temporal pronominal adverb + conjunction:

```
tehdy - když (=then - when)
odtehdy - když (=since_then - when)
dotehdy - když (=until_then - when)
predtím - než (=before - than)
poté - co (=after - that)
```

Temporal pronominal adverbs in the governing clause are only considered a supporting expression if the role of the relative adverb in the dependent clause is the same or if the dependent clause is introduced by a conjunction. Then, the effective root node of the dependent clause depends on the effective root node of the governing clause and is assigned a temporal functor (see Section 7.3, "Temporal functors").

Examples:
Šli tam $\leq$ tehd $y>, k d y$.TWHEN $u z ̌$ tam nikdo nebyl.TWHEN (=They went there (then) when nobody else was there) Fig. 6.61

Bydleli tam $\leq$ odtehdy $>$ odkdy.TS IN jim to bylo dovoleno.TSIN (=They lived there from the time (lit. since_then since_when) they were allowed to) Fig. 6.62

Udělala to $\leq$ předtím $>, \leq n e z ̌\rangle$ šla.TWHEN do nemocnice. (=She did it before (than) she went to the hospital)

Navštívíme vás jen $\leq t e h d y>, \leq k d y z ̌\rangle$ nás pozvete.TWHEN (=We only visit you (in that case) if you invite us)
naše pozvání jedině <tehdy>, <když> vy pozvete.TWHEN nás (=our invitation only in case (lit. then if) you invite us)

The supporting expression "poté". Also the expression poté is considered a supporting expression with a temporal meaning. If co forms a correlative pair with poté it is considered a subordinating conjunction (it introduces an adverbial clause; see also Section 6.5.2.1, "Dependent clauses with the connective "co"").

Example:
Odjela $\leq$ poté $>, \leq c o\rangle$ všechno vyřídila.TWHEN (=She left after (that what) she arranged everything)
The correlative pair poté - co, but also other correlative pairs, are sometimes part of collocations like: krátce předtím, než (=short time before..); dva dny poté, co (=two years after...). In accordance with the rules in Section 6.11.3, "Mutual relation of two or more locative/directional or temporal modifications", the dependent clause can also modify preceding temporal modifications (which is a nominal phrase in the accusative or adverb). Cf.:

- Odjela dva měsice.TWHEN $\leq$ poté $>, \leq c o>$ porodila.TWHEN (=She left two years after she gave birth)

The dependent adverbial clause introduced by the correlative pair poté -co modifies the temporal modification dva mésice (cf. Fig. 6.63).

More examples:

Vrátila se 5 minut.TWHEN $\leq$ poté $>, \leq c o \geq$ Jirka odešel.TWHEN (=She came back 5 minutes after Jirka left)

Odjela dva měsice.TWHEN $\leq$ od toho $>$, $k d y$.TWHEN porodila.TWHEN ( $=$ She left two months after she gave birth).

Figure 6.61. Temporal pronominal adverbs used as supporting expressions


Šli tam tehdy, kdy už tam nikdo nebyl. (=lit. (They) went there then when already there noone not_was)

Figure 6.62. Temporal pronominal adverbs used as supporting expressions


Bydleli tam odtehdy, odkdy jim to bylo dovoleno. (=lit. (They) lived there since_then since_when them it was allowed)

Figure 6.63. "Pote"" used as a supporting expression


Odjela dva měsice poté, co porodila. (=lit. (She) left two months after_that that (she) gave_birth)
The temporal pronominal adverb is not a supporting expression. If the dependent clause is introduced by a relative adverb and the function of the adverbial expressions in the governing and dependent clauses is different, the pronominal adverb in the governing clause is not considered a supporting expression. Each pronominal expression is represented by a separate node. The effective root node of the dependent clause has the RSTR functor and depends on the node for the pronominal adverb in the governing clause.

## Example:

Bydleli tam odtehdy.TS IN, kdy.TWHEN se jim narodila.RSTR dcera. (=They lived there since the time (=since_then when) their daughter was born) Fig. 6.64

Figure 6.64. The temporal pronominal adverb is not a supporting expression


Bydleli tam odtehdy, kdy se jim narodila dcera. (=lit. (They) lived there since_then when REFL to_them was_born daughter)

### 6.5.3.5. Correlative pairs with other pronominal adverbs used as supporting expressions

A range of other pronominal adverbs forming correlative pairs with relative elements and conjunctions are considered supporting expressions. It concerns especially the following pairs:

- pronominal adverb + relative element:

```
tak-jak (=so - how)
tolik - kolik (=so_much - how_much)
tolikrát - kolikrát (=so_many_times - how_many_times)
```

- pronominal adverb + conjunction:

```
proto - aby (=apprx. in_order - to)
proto - že (=apprx. so - that)
tak-aby (=apprx. so - to)
tak-že (=so - that)
tehdy - kdyby (=then - if)
```

Correlative pairs: pronominal adverb + relative element. In these correlative pairs, the pronominal adverb (the supporting expression) has the same function as the relative element in the dependent clause).

Examples:

Dostal $\leq$ tolik $>$ kolik.PAT chtěl.PAT $(=H e$ got as much as he wanted)
Correlative pairs: pronominal adverb + conjunction. In these correlative pairs, the conjunction introduces the dependent clause (a content or adverbial clause; not a relative clause) the function of which (expressed by the functor of its effective root node) is clearly given by the pronominal adverb in the governing clause for which it is the only role it plays, i.e. to refer to the dependent clause.

Examples:
Udělal něco $\leq$ proto $\rangle, \leq a b y\rangle$ přišla.AIM (=He did it for her to come) Fig. 6.65
Pracoval $\leq t a k\rangle,\langle a b y\rangle$ nikdo nic nenamital.MANN (=He worked (properly) so that noone could have any objections)

Mohla by jet $\leq$ tehdy $>, \leq k d y b y \geq$ nebyla nemocná.COND. (=She could go (in that case) if she weren't ill)

NB! The adverbial expressions tolik (=so_much), natolik (=to_such_a_degree), tak (=so) introducing dependent consecutive clauses are not considered supporting expressions; the effective root node of the dependent clause (with the functor RESL) depends on the node for such an expression (see also Section 8.7, "Constructions with a dependent consecutive clause").

Figure 6.65. Pronominal adverb used as a supporting expression


Udělal něco proto, aby přišla. (=lit. (He) did something in_order to (she) came)

Figure 6.66. Pronominal adverb used as a supporting expression


Udělal to tak, jak sis přál (=lit. (He) did it so how (you) AUX_REFL wished) .

### 6.5.4. False dependent clauses

Constructions with false dependent clauses are such connections of two clauses in which there is a semantic relation of coordination but in which, formally, one clause depends on the other.

By using a subordinating conjunction, a new meaning (aim, condition) is introduced into the clausal connection, which is not in fact present between the propositions. The decision of the author to use this form is respected in the annotation (i.e. the meaning/content is subordinated to the form here). The use of such a form has a certain stylistic effect.

The effective root node of a false dependent clause has a functor according to the used connective and depends on the effective root node of the governing clause.

If the connective is a conjunction which is gradually becoming a coordinating conjunction, the whole clausal connection is taken to be a paratactic connection. We mention these cases here since they are often considered to be cases of subordinate clauses, the connectives being subordinating conjunctions.

False dependent clauses are either relative (see Section 6.5.4.1, "False relative clauses") or conjunctional (see Section 6.5.4.2, "False dependent conjunctional clauses") clauses.

### 6.5.4.1. False relative clauses

False (dependent) relative clauses, introduced by relative pronouns or adverbs (který (=which), kde (=where)), are analyzed as dependent clauses whose effective root nodes depend on a noun and are assigned the RSTR functor.

Examples:
Spadl pod vlak, který ho přejel.RSTR (=He fell under a train, which ran him over) Fig. 6.67

Obvinili ředitelku za špatné zacházení se psy, kteřív útulku údajně hynou.RSTR hladem. (=... bad treatment of the dogs, which are dying)

Figure 6.67. False relative clauses


Spadl pod vlak, který ho přejel. (=lit. (He) fell under train, which him ran_over)

### 6.5.4.1.1. Constructions with the connectives "což", "přičemž", "načež", "pročež", "začež", "aniž"

Those clausal connections in which the second clause is introduced by the connectives: což, přičemž, načež, pročež, začě̌, aniž etc. (sometimes considered to be cases of false dependent clauses), are usually taken to be paratactic connections in PDT.

For the annotation rules regarding paratactic structures, see Section 6.6, "Parataxis".
The connectives což, přičemž, načež, pročež, začež, aniž etc. are divided into two groups depending on whether the connective is a modification of the dependent clause or not:

- connectives that are not modifications themselves and are turning into coordinating conjunctions:
přičemž
načež
začež
pročež
aniž
The nodes representing these connectives are paratactic structure root nodes. The semantic relation between the clauses is expressed by one of the functors used for paratactic connections (see Section 7.12, "Functors expressing the relations between the members of paratactic structures").


## Examples:

Nedohodli se, pročež.CSQ nastal nový boj. [nodetype=coap] (=They didn't reach an agreement, which was the reason to start a new fight) Fig. 6.68

Vyšel z domu, načež.CONJ začala bouřka. [nodetype=coap] (=He came out of the house and the storm began immediately)

Šel, přičemž.CONJ neviděl. [nodetype=coap] (=He was walking without seeing/and didn't see)

The connective "aniž". The connective aniž (=apprx. and_not) negates the predicate in the second clause. Therefore, a new node representing the syntactic negation is inserted into the structure (with the \#Neg t-lemma) - it depends on the effective root node of the paratactic structure and is assigned the CM functor (see also Section 8.16.1.2, "Conjunction modifiers"). Cf.:

- Dostal odměnu, aniž.ADVS se o ni zasloužil. [nodetype=coap] (=He got a reward without deserving it)
$=$ He got a reward but he didn't deserve it.
There is a newly established node for syntactic negation dependent on aniž in the tree, with the \#Neg t-lemma and the CM functor (cf. Fig. 6.69).
- connective which is a modification at the same time:
což
The connective což (also in the forms: bez čehož (=without which), čemuž (=to_which), za což (=for which)) is often a modification in the clause it introduces. The node representing což has a functor, then, according to its position in the clause. The root node of the paratactic structure is the node representing the comma. The effective root nodes of both clauses are assigned the same functor.

Examples:
Při reklamaci došlo $k$ chybě, za což.PAT se vám omlouváme. [\#Comma.CONJ] ( = There was an error in processing the complaint, for which we apologize) Fig. 6.70

Dostal jich jen 5, což.ACT je ostuda. [\#Comma.CONJ] (=He only got five, which is a shame) Fig. 6.71

NB! Clauses introduced by což do not have to refer to the whole preceding clause but can also refer just to a part of it. In such cases, there is a paratactic connection between the second clause and the part (of the first clause) it relates to. Often, the relation is that of apposition. Also here, the effective root nodes of both clauses are assigned the same functor.

Examples:
O práci přijdou všichni.ACT [is_member=1], kdo pracovali, což.ACT je.ACT [is_member=1] asi 46 lidí. [\#Comma.APPS] ( $=\bar{A}$ ll employees will lose their jobs, which is about $4 \overline{6}$ people) Fig. 6.72

Doufám, že problémy se budou projednávat $\underline{s}$ kvalifikovanými lidmi.ADDR [is_member=1] , což.ACT jsou.ADDR [is_member=1] predevším funkcionáři federálnich svazů. [\#Comma.APPS] (=I hope the problems will be discussed with competent people, which are especially ...)

For the grammatical coreference with $c o z ̌ ~ s e e ~ S e c t i o n ~ 9.2 .2 .2, ~ " C o r e f e r e n c e ~ o f ~ t h e ~ r e l a t i v e ~ e l e m e n t ~$ "což"".

Figure 6.68. Constructions with "pročež"


Nedohodli se, pročež nastal nový boj. (=lit. (They) not_reached_agreement REFL, for_which_reason started new fight)

Figure 6.69. Constructions with "aniž"


Dostal odměnu, aniž se o ni zasloužil. (=lit. (He) got reward and_not REFL about it deserved)
Figure 6.70. Constructions with "což"


Při reklamaci došlo $k$ chybě, za což se vám omlouváme. (=lit. With complaint happened to error for which REFL (we) you apologize)

Figure 6.71. Constructions with "což"


Dostal jich jen 5, což je ostuda. (=lit. (He) got of_them only five which is shame)

Figure 6.72. Constructions with "což"


O práci přijdou všichni, kdo pracovali, což je asi 46 lidí. (=lit. About job will_lose everybody who worked, which is approximately 46 people)

### 6.5.4.2. False dependent conjunctional clauses

False dependent conjunctional clauses are especially false purpose clauses introduced by the conjunction aby and false dependent conditional clauses introduced by jestliže, -li or když.

False purpose clauses. False purpose clauses with the conjunction $a b y$ are analyzed as dependent clauses and their effective root nodes are assigned the AIM functor.

Example:
Odešel, $\leq a b y>$ se už nevrátil.AIM (=He left to never come again) Fig. 6.73

False conditional clauses. If the conjunctions jestliže, $-l i$ or $k d y z ̌$ are used to express confrontation, the choice of the form is respected and the construction is analyzed as containing a dependent conditional clause (its effective root node is assigned the COND functor).

Example:
$\leq$ Jestliže $>$ Sparta v první třetině vyhrávala.COND, nakonec prohrála. (=While (lit. if) Sparta was winning in the first third, they lost in the end) Fig. 6.74

Figure 6.73. Constructions with false purpose clause


Odešel, aby se už nevrátil. (=lit. (He) left so_that REFL (he) already would_not_return)

Figure 6.74. Constructions with false conditional clause


Jestliže Sparta v první třetině vyhrávala, nakonec prohrála. (=lit. If Sparta in first third was_winning, finally (they) lost)

### 6.5.4.2.1. Constructions with the connectives "kdežto" and "takže"

The conjunctions kdežto and takže (sometimes considered to be subordinating conjunctions) are analyzed as coordinating conjunctions in PDT and the clauses they connect as coordination.

The connective "kdežto". The node representing kdežto is a paratactic structure root node and is assigned the CONFR functor (see also Section 7.12.1.2, "CONFR").

Example:
Svobodní mládenci mívají nepořádek kolem sebe, kdežto. CONFR ženatí mivají nepořádek v duši. [nodetype=coap] (=Bachelors often have a mess all around them whereas married men have a mess in their souls) Fig. 6.75

The connective "takže". The node representing takže is a paratactic structure root node and is assigned the functor CSQ (see also Section 7.12.1.5, "CSQ").

Example:
Udělalo se hezky, takže.CSQ jsme mohli jít ven. [nodetype=coap] (=The weather got really nice so we were able go out) Fig. 6.76

Figure 6.75. Constructions with the connective "kdežto"


Svobodní mládenci mívají nepořádek kolem sebe, kdežto ženatí mívají nepořádek v duši. (=lit. Single young_men have mess around themselves whereas married have mess in soul)

Figure 6.76. Constructions with the connective "takže"


Udělalo se hezky, takže jsme mohli jít ven. (=lit. Made REFL nice so (we) AUX could go out)

### 6.5.4.2.2. Constructions with the connective "zatímco"

The conjunction zatímco is analyzed as a subordinating conjunction that introduces clauses with the functor TPAR (see Section 7.3.7, "TPAR") or CONTRD (see Section 7.9.2, "CONTRD"). If this conjunction is used to express confrontation, the clause it introduces is not interpreted as a false dependent clause (like with the conjunction jestliže (=if)), but rather this meaning is taken to be one of the regular meanings of the conjunction and it is expressed by a special functor: CONTRD.

## Example:

$\leq$ Zatímco $>$ dole ve vrátnici bylo.CONTRD dusno, tady nahoře je.PRED ovzduší doslova nedýchatelné. (=While at the reception, the air was stuffy, here, upstairs, it is utterly impossible to breathe)

### 6.6. Parataxis

Non-dependency connections of two or more elements (modifications or clauses) which are on the same level and which depend on the same governing element in the same way are considered to be cases of parataxis )

The following types of paratactic connections are represented as paratactically connected elements:

- elements connected by coordination or apposition (see Section 6.6.2, "Coordination and apposition"),
- expressions referring to mathematical operations and intervals (see Section 6.6.3, "Connecting elements when expressing mathematical operations and intervals").

General annotation rules for paratactic connections are described inSection 6.6.1, "Representing parataxis in a tectogrammatical tree".

### 6.6.1. Representing parataxis in a tectogrammatical tree

At the tectogrammatical level we operate with two-dimensional trees even when representing paratactic connections; hence, we do not establish a special dimension for paratactic connections (however, a consequence is the violation of the dependency principle, see alsoSection 6.1.2, "Non-dependency edges").

Paratactic structure. Paratactic combination of two or more elements is represented as a paratactic structure in the tectogrammatical tree. Paratactic structure root node is a node representing a coordinating connective or operator. In those rare cases when there is no coordinating connective or a punctuation mark present in the surface structure, the paratactic structure root node is formed by a newly established node with t-lemma \#Separ (for more on coordinating connectives and operators see Section 8.16, "Co-ordinating connectives and operators"). The paratactic structure root node has the nodetype attribute filled with the value coap (see Section 3.3, "Paratactic structure root nodes").

A paratactic structure root node is a direct daughter of the node that governs the effective root nodes of the connected modifications or clauses.

Nodes representing paratactically connected elements (root nodes of the paratactically connected elements) are direct daughter nodes of the paratactic structure root node.

The root nodes of paratactically connected elements have the value 1 in the is_member attribute. Paratactically connected elements are thus distinguished from the nodes that represent a shared modifier of the paratactic elements. The root node of a shared modifier (see Section 6.6.1.1, "Shared modifier of paratactically connected elements" below) is also a direct daughter node of the paratactic structure root node but its is_member attribute value is not 1 . The values of the is_member attribute are presented in Table 6.3, "Values of the is_member attribute".

Table 6.3. Values of the is_member attribute
1 the node is the root node of a paratactically connected element

0 the node is not a root node of a paratactically connected element
If no value of the is_member attribute is assigned, the assumed value is 0 .
A paratactically connected element can be represented by an embedded paratactic structure. In such cases we distinguish between direct and terminal elements of a paratactic structure. By terminal members of a paratactic structure we understand the effective root nodes of paratactically connected modifications or clauses. By direct members of a particular paratactic structure we understand all such direct daughter nodes of the particular paratactic structure which have their is_member attribute filled with the value 1 . A direct member of a paratactic structure can be a terminal member at the same time; the root node of an embedded paratactic structure can also be a direct member (if any of the paratactically connected elements is a paratactic connection) but it can never be a terminal member. For more details on embedded paratactic structures see Section 6.6.1.4, "Embedded paratactic structures".

A direct daughter of a paratactic structure root node (nodetype=coap) can be, then, represented by:

- effective root node of a paratactically connected modification or clause (a terminal member of a paratactic structure), which has the is_member attribute filled with value 1 .
- root node of an embedded paratactic structure (a direct element of a paratactic structure), which has the is member attribute filled with the value 1.
- root node of a shared modifier (modifying the terminal members of a paratactic structure), which has the is_member attribute filled with the value 0 .

NB! Shared modifiers can also have the form of a paratactic structure. In such cases the root node of the shared modifier is a paratactic structure root node, however, the value of its is_member attribute is 0 .

- node representing a rhematizer of a shared modifier (see Section 10.6.4.1, "Rhematizers in paratactic structures"), i.e. a node with the RHEM functor. The value of its is_member attribute is also 0 .
- node representing an expression that modifies the meaning of the paratactic connection (of the connective; see Section 8.16.1.2, "Conjunction modifiers"), i.e. a node with the CM functor. The value of its is_member attribute is also 0 .

A schematic paratactic structure is presented in Fig. 6.77.
Figure 6.77. Paratactic structure


The meaning of the paratactic connection. At the tectogrammatical level, we also specify the meaning of the paratactic connection, i.e. what type of relation there is between the connected elements - it is expressed by the functor assigned to the paratactic structure root node. All functors (and their definitions) which can be assigned to a paratactic structure root node are listed in Section 7.12, "Functors expressing the relations between the members of paratactic structures".

Principle of representing the structure in the simplest way possible. Parataxis is frequently accompanied by ellipsis (for more on ellipsis see Section 6.12, "Ellipsis"). Paratactic structures are, in general, represented (in the tree) in the lowest position possible, and a shared modifier is often used (see Section 6.6.1.1, "Shared modifier of paratactically connected elements" below). Consequently, no newly established nodes for the elided modifications usually need to be added to the tree. We prefer the simplest structure possible, i.e. parataxis of sentence parts is prefered to parataxis of clauses (see Section 6.6.1.2, "Parataxis of sentence parts, parataxis of clauses and mixed parataxis").

Compare:

- Jirka potkal a pozdravil Marii (=lit. George met and greeted Mary).

Two inner participants Jirka (=George) and Marie (=Mary) depend as a shared modifier on the coordination of the verbs potkat (=to_meet) and pozdravit (=to_greet). Cf. Fig. 6.78.

Figure 6.78. Representing parataxis


Jirka potkal a pozdravil Marii. (=lit. George met and greeted Mary.)

### 6.6.1.1. Shared modifier of paratactically connected elements

A shared modifier of paratactically connected elements is such a dependent modifier (also in the form of a clause) that modifies each paratactically connected (terminal) element and that is expressed only once at the surface structure of the sentence.

A shared modifier of a paratactic structure can be any modification (i.e. an expressed or non-expressed argument or adjunct). Optional modifications are represented as shared modifiers only in semantically unambiguous cases (for more details see Section 6.12.3.1, "Textual ellipsis of a non-obligatory modification in paratactic structures").

Representing a shared modifier in the tectogrammatical tree. The root node of a shared modifier is represented as a direct daughter of the root node of the paratactic structure, the terminal members of which (the effective root node of) the shared modifier really depends on. The root node of the shared modifier differs from the root nodes of paratactically connected elements in its value of the is_member attribute, which is 0 .

## Cf:

- Marii jsem viděl a slyšel zpívat. (=lit. Mary (I) - heard and saw sing.)

The Patient Marii (=Mary), the predicative complement zpivat (=to_sing) and the non-expressed Actor are shared modifiers of the coordinated predicates vidět (=to_see) and slyšet (=to_hear). In the tree, the nodes representing these modifications will be represented as direct daughters of the paratactic structure root node, i. e. of the node representing the conjunction $a$ (=and). The value of their is member attribute is 0 . Cf. Fig. 6.79.

- \{\#PersPron.ACT\} Tu věc tí nedám, respektive nemohu dát. (=lit. That thing (I) (to) you will_not_give, actually (I) cannot give.)

The Patient věc (=thing), the Addressee $t i(=y o u)$ and the non-expressed Actor are shared modifiers of the predicates in apposition nedat (=not_to_give) and nemoci dát (=cannot_give). In the tree, the nodes representing these modifiers are represented as direct daughter nodes of the root node of the apposition, i.e. of the node which represents the comma. The value of their is_member attribute is 0 . Cf. Fig. 6.80.

- Jirka potkal Marii a pozdravil. (=lit. George met Mary and said_hello.)

The Actor Jirka (=George) is a shared modifier of the coordinated predicates potkat (=to_meet) and pozdravit ( $=$ to_say_hello). In the tree, the node representing the Actor is a direct daughter of the root node of the paratactic structure, i.e. of the node representing the conjunction $a$ (=and). The value of its is_member attribute is 0 .

The Patient Marie (=Mary) is a shared modifier of both predicates if the meaning is ... and George said hello to Mary, otherwise it is not a shared modifier and it merely depends on the predicate potkat (=to_meet) and the Patient of the predicate pozdravit (=to_say_hello) has the t-lemma \#PersPron (the meaning is, then, that George said hello to someone else who is known from the context), or it has the \#Gen $t$-lemma.

- červená čepice a šála (=lit. (a) red cap and scarf)

The free modification červený ( $=$ red) will be a shared modifier of both nouns if the meaning is that both the cap and the scarf are red. In the tree, the node representing this free modification is a direct daughter of the root of the paratactic structure, i.e. of the node representing the conjunction $a$ (=and). The value of its is_member attribute is 0 . Cf. Fig. 6.81.

If it is not clear from the context whether the scarf is red, the node representing the modification červený (=red) depends on the node representing the noun čepice (=cap) only, i.e. it is not represented as a shared modifier. Cf. Fig. 6.82.

- Večer jsem uklizel a sestra se dívala na televizi. (=lit. (In)_(the)_evening (I) - was_tidying_up and (the) sister - was_watching - TV.)

The temporal adjunct večer (=(in)_(the)_evening) represents the shared modifier of the coordinated predicates uklizet (= to_tidy_up) and divat se (=to_watch). In the tree, the node representing this modification is represented as a direct daughter of the root node of the paratactic structure, i.e. of the node representing the conjunction $a(=a n d)$. The value of its is_member attribtue is 0 .

NB! A shared modifier can be itself in the form of a paratactic structure. Example:

- Syna i dceru otec pochválil a matka odměnila. (=lit. (The) son and (the) daughter father praised and mother rewarded.)

The Patient syna a dceru (=(the) son and (the) daughter) is a shared modifier of the coordinated predicates pochválit (=to_praise) and odménit (=to_reward). The shared modifier will be represented as a paratactic structure. The root node of the shared modifier, i.e. the node representing conjunction $i$ (is_member=0), will be a direct daughter of the paratactic structure root node, i.e. of the node representing the conjunction $a(=a n d)$.

NB! A shared modifier can be modified by a rhematizer. The node representing the rhematizer of a shared modifier is represented as a left-side sister of the shared modifier (its root node). It is, therefore, also a direct daughter of the root of the paratactic structure. See also Section 10.6.4.1, "Rhematizers in paratactic structures".

NB! In embedded structures, the root node of the shared modifier is a direct daughter of the root of the (non)-embedded paratactic structure, the terminal members of which the shared modifier really depends on. See also Section 6.6.1.4, "Embedded paratactic structures".

NB! The principle of shared modification of paratactically connected elements is closely related to ellipsis. Therefore, see also Section 6.12.3, "Ellipsis and the principle of shared modification in paratactic structures".

Figure 6.79. Shared modifier of paratactically connected elements


Marii jsem viděl a slyšel zpívat. (=lit. Mary (I) - saw and heard sing.)
Figure 6.80. Shared modifier of paratactically connected elements


Tu věc ti nedám, respektive nemohu dát. (=lit. That thing (I) (to) you will_not_give, actually (I) cannot give.)

Figure 6.81. Shared modifier of paratactically connected elements


Figure 6.82. Modification not representing a shared modifier

červená čepice a šála (=lit. (a) red cap and scarf)
Cases in which the modification is not a shared modifier. If the modification which could potentially be a shared modifier needs a different value in any attribute with respect to any of the terminal members of the paratactic structure (e.g. the functor or the value of the $t$ fa attribute; i. e. a value different from what is required for the other terminal members), the particular modification is not represented as a shared modifier, but it is added to each element of a paratactic structure in the form of a newly established node with appropriate attributes. Cf.:

- zakladatel a prezident firmy (=lit. (the) founder and president (of) (the) firm)
$=$ zakladatel $\{\#$ PersPron.PAT\} a prezident firmy.APP (=lit. (the) founder and president (of) (the) firm)

The modification firma (=firm) cannot be a shared modifier of the coordinated nouns, because the noun president requires a modification with the functor APP, while the noun zakladatel (=founder) requires a modification with the functor PAT. The node representing the noun firma (=firm) is therefore represented as a node with the functor APP and it depends only on the node representing the noun president (=president). A newly established node with the functor PAT and with the $t$ lemma \# PersPron is inserted into the structure as depending on the node representing the noun zakladatel ( $=$ founder), and there is a textual coreference relation marked as leading from this node to the node representing the noun firma (=firm). Cf. Fig. 6.84.

NB! If the word order were prezident a zakladatel firmy (=lit. (the) president and founder (of) (the) firm) the representation of the structure would be different; see Section 6.12.3, "Ellipsis and the principle of shared modification in paratactic structures".

- Pavel bude pochválen a pojede do Prahy na soutěz. (=lit. Pavel will_be_praised and (he) will_go to Prague to (a) competition.)
= Pavel.. AT bude pochválen a $\{\#$ PersPron.ACT $\}$ pojede do Prahy na soutěž.
The modification Pavel cannot represent a shared modifier of the predicates pochválit (=to_praise) and jet ( $=$ to _go), because concerning the predicate pochválit (=to_praise) it functions as its Patient, while for the predicate jet ( $=t o \_$go) it is an Actor. Therefore, we establish a new node with the tlemma substitute \#PersPron and the fuctor ACT, and this newly established node will depend on the node representing the predicate jet (=to_go), and it will be connected to the node standing for the Patient Pavel by a coreference relation. Cf. Fig. 6.85.
- Přišel Jirka a posadil se. (=lit. Came George and sat_down -.)
$=$ Přišel Jirka.ACT [tfa=f] $a\{\#$ PersPron.ACT [tfa=t] posadil se.
The modification Jirka (=George) cannot be represented as a shared modifier of the predicates přijít (=to_come) and posaditse (=to_sit_down), because Jirka is a contextually non-bound expression in the first clause, while in the second clause it is a contextually bound expression. A newly established node with the t -lemma substitute \#PersPron and with the value $t$ in the attribute tfa will be inserted into the structure as depending on the node representing the predicate posadit se (=to_sit_down) and it will be linked to the Actor Jirka ( $\mathrm{tfa}=\mathrm{f}$ ) in the first clause by a coreference relation. Cf. Fig. 6.86.

NB! Cases when something is a shared modifier of all terminal members of a paratactic structure needs to be distinguished from the cases in which a modification modifies only one, or several terminal members. In such cases, the node representing the modification (in fact, the effective root node of this modification) is not a direct daughter of the root of the paratactic structure but it depends on one of the terminal elements. If the modification modifies more terminal members, but not to all of them, it occurs in the form of newly established nodes (the rules are described in Section 6.12.2, "Ellipsis of the dependent element") as depending on all the elements it modifies. Cf.:

- Tento stroj se vyráběl u nás, posilal se do zahraničí a tam ho teprve firmy prodávaly do továren. (=lit. This machine - was_produced by us, (it) was_sent - abroad and there it only firms sold to factories.)

The modification stroj (=machine) is not represented as a shared modifier of all the three predicates; it is the Patient of the predicate vyrábět (=to_produce) and posilat (=to_send), but not of the predicate prodávat (=to_sell). In the tree, the node representing the modification stroj (=machine) therefore depends on the first predicate as its Patient; the predicate posilat (=to_send) has a newly established node with the $t$-lemma substitute \#PersPron in its Patient position (this newly established node is linked by a coreference relation to the expressed Patient stroj (=machine)). Similarly, the general Actor of the first two predicates is not represented as a shared modifier. Cf. Fig. 6.83.

Figure 6.83. Modification not representing a shared modifier


Tento stroj se vyráběl u nás, posilal se do zahraničí a tam ho teprve firmy prodávaly do továren. (=lit. This machine - was produced by us, (it) was_sent - abroad and there it only firms sold to factories.)

Figure 6.84. Modification not representing a shared modifier

zakladatel a prezident firmy (=lit. (the) founder and president (of) (the) firm)

Figure 6.85. Modification not representing a shared modifier


Pavel bude pochválen a pojede do Prahy na soutěz. (=lit Pavel will_ be_praised and (he) will_go to Prague to (a) competition.)

Figure 6.86. Modification not representing a shared modifier


Přišel Jirka a posadil se. (=lit. Came George and sat_down -.)

### 6.6.1.2. Parataxis of sentence parts, parataxis of clauses and mixed parataxis

When annotating paratactic structures, it is necessary to distinguish between parataxis of sentence parts (constituents), parataxis of clauses and mixed parataxis:

## - parataxis of sentence parts.

Parataxis of sentence parts involves paratactic connections of two or more modifications, or clauses the effective root nodes of which are not verbs.

With parataxis of sentence parts, the terminal members of the paratactic structure are not verbs.
Examples:
Hlavní podezřelý.ACT [is_member=1], ředitel.ACT [is_member=1] zoologické zahrady zůstává na svobodě. [ \#Comma.APPS] (=lit. (The) main suspect, (the) director (of) (the) zoological garden remains at large.)

Je prezidentem jen diky mým taktickým.RSTR [is_member=1] a.CONJ diplomatickým.RSTR [is_member=1] schopnostem. (=lit. (He) is president only due_to my tactical and diplomatic skills.)

Špičková cena.DENOM [is_member=1] a.CONJ špičkovývýkon.DENOM [is_member=1] (=lit. (a) top price and (a) first-rate performance)

## - parataxis of clauses.

Parataxis of clauses stands for paratactic connections of two or more modifications, or clauses the effective root nodes of which are verbs. These are mainly paratactic connections of verbal clauses (see Section 6.4.3, "Connecting verbal and non-verbal clauses").

With clausal parataxis, the terminal members of the paratactic structure are verbs.
Examples:
Vystoupím.PRED [is_member=1] na vánočním koncertě, objíždím.PRED [is_member=1] mimopražské premiéry našeho filmu a.CONJ tě̌̌ím. PRED [is_member=1] se na Vánoce. (=lit. (I) will_appear in (the) Christmas concert, (I) travel_around (the) outside_Prague premieres (of) our film and (I) look_forward - to Christmas.)

Vladimí Zubovobdivuje.PRED [is_member=1] herce a.CONJ portrétuje.PRED [is_member=1] je podle fotografii. (=lit. Vladimir Zubov admires actors and portrays them according_to (their) photographs.)

Jirka potkal.PRED [is_member=1] a.CONJ pozdravil.PRED [is_member=1] Marii. (=lit. George met and greeted Mary.)

Lékar̆ včera oznámil, že stav pacienta ję.EFF [is_member=1] stabilizovaný, že přimé ohrožení života je.EFF [is_member=1] zažehnané a.CONJ trvalé následky jsou.EFF [is_member=1] vyloučeny. (=lit. (The) doctor yesterday announced that (the) state (of) patient is stable, that direct danger (of) life are averted and continual effects are eliminated.)

Chystáme se nejen stavět.PAT [is_member=1] domy, ale.GRAD také rozšiřovat.PAT [is_member=1] ulice. (=lit. (We) are planning - not_only (to) build houses but also (to) expand streets)

- mixed parataxis.

Mixed parataxis concerns paratactic connections of two or more elements in which the effective root node of at least one of the connected elements is expressed by a verb and the effective root node of at least one of them is not expressed by a verb.

With mixed parataxis, at least one terminal member of the paratactic structure is a verb and at least one terminal member is not a verb.

## Examples:

Téma.DENOM [is_member=1] : Co právě dělám.PRED [is_member=1] [\#Colon.APPS] (=lit. Topic: What right_now (I) am_doing)

O zajímavých místech.PAT [is_member=1] mimo Prahu, jako.APPS je.PAT [is_member=1] třeba Litomyšl, Kutná Hora neb̄o Český Krumlov, zahraniční turisti většinou nevédí. (=lit. About interesting places outside Praha such_as - for instance Litomyšl, Kutná Hora, or Český Krumlov foreign tourists usually do_not_know.)

Paratactic connection of elements expressing mathematical operations and intervals is always a case of parataxis of sentence parts (this type of paratactic connection is not discussed in detail in this section).

In accordance with the principle of the simplest structure possible (see Section 6.6.1, "Representing parataxis in a tectogrammatical tree"), parataxis of sentence parts is always preferred to clausal parataxis. Nevertheless, it is not always possible to represent several potentially paratactic modifications in the form of parataxis of sentence parts. In all cases in which potentially paratactically connected modifications do not meet the conditions for being considered parataxis of sentence parts, we interpret the structure in terms of clausal parataxis, i.e. the nodes representing the governing predicates of each of these modifications are added into the tectogrammatical tree by means of newly established nodes with the t-lemma substitute \#EmpVerb or with the help of copied nodes (the rules are described in Section 6.12.1.1, "Ellipsis of the governing verb").

Conditions for interpreting the structure in terms of parataxis of sentence parts. The following conditions have to be met in order to interpret the structure in terms of parataxis of sentence parts:

- agreement in fuction,
- agreement in form.

Agreement in function means primarily agreement in functors of the terminal members of the paratactic structure. Nevertheless, modifications with different functors can also be connected in coordination or apposition. However, these are always functors of a particular semantic group (e.g. modifications with different temporal functors). Therefore, there are only incomplete rules as to the possible functors of the terminal members of paratactic structures (see Section 6.6.1.3, "Functors of the terminal members of a paratactic structure").
!!! It is assumed that it is possible to list all combinations of functors that can cooccur in coordination or aposition. Such a list, however, has not been made yet.

Agreement in form is not obligatory; it is the agreement in function that is decisive.
It is not possible to represent potentially paratactically connected modifications as parataxis of sentence parts in those cases in which there are rhematizers or modifications modifying an omitted predicate cooccuring with some (but not all) of the connected elements. Cf.:

- Přišel Petr a asi i Pavel. (=lit. Came Petr and perhaps also Pavel.)
$=$ Přišel Petr a asi přišel i Pavel. (=lit. Came Petr and perhaps came also Pavel.)

The Actors Petr and Pavel cannot be represented as parataxis of sentence parts; the expression asi (=perhaps) modifies a non-expressed (elided) predicate. What is true for Petr, is not true for Pavel. Therefore, we interpret the structure in terms of clausal parataxis. Cf. Fig. 6.87.

- Navštívíme hrad, zámek a možná i jeskyni. (=lit. (We) shall_visit (a) castle, (a) manor, and perhaps also (a) cave.)
=Navštívime hrad, zámek a možná navštivíme i jeskyni. (=lit. (We) shall_visit (a) castle, (a) manor, and perhaps (we) shall_visit also (a) cave.)

The Patients hrad (=castle), zámek (=manor) and jeskyně (=cave) cannot be represented in the form of coordination of sentence parts - there is the expression možná (=perhaps), modifying a non-expressed (elided) predicate. What applies to the castle and manor, does not apply to the cave. Therefore, only the Patients hrad (=castle) and zámek (=manor) are interpreted as members of parataxis of sentence parts, the Patient jeskyně (=cave) depends on a newly established node representing the predicate navštivit (=to_visit), which is in coordination with the expressed predicate. Cf. Fig. 6.88.

When analyzing cases of parataxis of sentence parts and clauses (possibly with an elided verb) with expressions that can be considered either rhematizers, or conjunction modifiers (see Section 10.6.1.3, "Homonymy: rhematizer - conjunction modifier"), it is the word order position of the homonynous expression what matters:

- If the homonymous expression occurs directly after the connective in the surface structure, it is taken to be a conjunction modifier and the paratactic structure is analyzed as parataxis of sentence parts. Compare:
- Přišel Petr a taky Pavel. (=lit. Came Petr and also Pavel.)

In the tree, Petr and Pavel will be represented in terms of parataxis of sentence parts. The node representing the expression taky ( $=$ also) is a conjunction modifier (functor $=\mathrm{CM}$ ).

- Přišel Petr, ale ne Pavel. (=lit. Came Petr but not Pavel.)

In the tree, Petr and Pavel will be represented in terms of parataxis of sentence parts. The node representing the particle $n e(=n o t)$ is a conjunction modifier (functor $=C M$ ). For annotation rules of the particles ano (=yes), ne (=no) and nikoli (=not) see alsoSection 8.13, "Expressions of negation and affirmation".

For the annotation rules concerning conjunction modifiers see Section 8.16.1.2, "Conjunction modifiers".

- If the homonymous expression occurs in the position of (elided) verb in the surface structure, it is considered a rhematizer, and the paratactic structure is analyzed in terms of clausal parataxis. Compare:
- Přišel Petr a Pavel taky. (=lit. Came Petr and Pavel too.)
$=$ Přišel Petr a Pavel přišel taky. (=lit. Came Petr and Pavel came too.)
In the tree, the structure is represented as a clausal coordination. The node representing the expression taky ( $=$ too) is a rhematizer (functor=RHEM).
- Přišel Petr, ale Pavel ne. (=lit. Came Petr but Pavel not)
$=$ Přišel Petr, ale Pavel nepřišel. (=lit. Came Petr but Pavel did_not_come.)
Therefore, in the tree, the structure is represented as a clausal coordination. The node representing the particle $n e$ is a rhematizer (functor=RHEM). For the annotation rules for constructions
with the particles ano (=yes), ne (=not) and nikoli (=not) see alsoSection 8.13, "Expressions of negation and affirmation".

For the annotation rules for rhematizers see Section 10.6, "Rhematizers".
Figure 6.87. Parataxis of clauses


Přišel Petr a asi i Pavel. (=lit. Came Petr and perhaps also Pavel.)

Figure 6.88. Parataxis of clauses


Navštívíme hrad, zámek a možná i jeskyni. (=lit. (We) shall_visit (a) castle, (a) manor and perhaps also (a) cave.)

Mixed parataxis. There are especially two cases that are analyzed in terms of mixed parataxis:

- paratactic connection of an independent verbal clause and an independent nominative clause.

Example:
Poznámka.DENOM[is_member=1] : Více informacínajdete.PRED [is_member=1] na straně 56. [ \#Colon.APPS] (=lit. Note: More information (you) will_find on page 56.)

For more on connecting verbal and non-verbal clauses see also Section 6.4.3, "Connecting verbal and non-verbal clauses".

- Paratactic connection of a dependent modification and a dependent verbal clause.

Examples:
Oznámil svou prohru.EFF [is_member=1] a.CONJ že se rozvádí.EFF [is_member=1] (=lit. (He) announced his defeat and that (he) was_getting_divorced.)

Ziskal pět bodů.PAT [is_member=1], cožje.PAT [is_member=1] minimum. (=lit. (He) got five points, which is (the) minimum.) [ \#Comma.APPS]

O zajímavých mistech.PAT [is_member=1] mimo Prahu, jako.APPS je.PAT [is_member=1] třeba Litomyšl, Kutná Hora nebo Český Krumlov, zahraniční turisti většinou nevědí. (=lit. About interesting places outside Prague such_as - for instance Litomyšl, Kutná Hora, or Český Krumlov foreign tourists usually do_not_know.)

Appositions with the conjunction jako (=such_as) form a frequent case of mixed paratactic structures (see Section 6.6.2.1.3, "Apposition with the conjunction "jako"").

For more on constructions with the relative pronoun $\operatorname{což}$ (=which) see Section 6.5.4.1.1, "Constructions with the connectives "což", "přičemž", "načež", "pročež", "začež", "aniž"".

### 6.6.1.3. Functors of the terminal members of a paratactic structure

Particularly those elements that have the same function (functor) enter into paratactic structures. However, the functors of the terminal members paratactic structures can also differ, in which the following holds:

- functors of operators expressing mathematical operations and intervals are always identical.
- functors of the terminal elements in cases of clausal parataxis are always identical
- in cases of parataxis of sentence parts, the terminal elements can have different functors only in the case of coordination or apposition of non-obligatory free modifications. This is mainly the case when adverbs and prepositional phrases are in coordination or apposition.

Examples:
pracovní doba osmihodinová.RSTR [is_member=1] a.CONJ bez přestávky.ACMP [is_member=1] (=lit. working hours eight-hour and without (a) break) Fig. 6.89
čistá.RSTR [is_member=1] pracovní doba, tj..APPS bez přestávky.ACMP [is_member=1] (=lit. net working hours, i.e. without (a) break) Fig. 6.90

Udělali to s súžasem.ACMP [is_member=1], tedy dobře.MANN[is_member=1][\#Comma.APPS] (=lit. (They) did it with astonishment therefore well.) Fig. 6.91

NB! It is impossible for two valency modifications (even if they have the same functor) to be represented as constituent coordination or apposition (parataxis of sentence parts) if they belong to two different valency frames. In such case, the paratactic structure needs to be represented as clausal coordination or apposition. Cf.:

- Poslal dopis domů.DIR3 a dědečkovi.ADDR (=lit. (He) sent (a) letter home and (to) (the) grandfather.)
$=$ Poslal dopis domů a poslal dopis dědečkovi. (=lit. (He) sent (a) letter home and (he) sent (a) letter (to) (the) grandfather.)

The verb poslat (=to_send) has two valency frames, one of them requires an Addressee while the other requires a modification with a directional meaning; the construction will be represented as clausal parataxis. Cf. Fig. 6.92.

NB! It is also impossible for an argument and adjunct to be connected in constituent coordination or apposition. These cases are also represented as clausal coordination or apposition with the ellipsis of the governing verb.

- In the case of mixed parataxis of a non-verbal modification and a dependent verbal clause, the value of the functor of the effective root node of the non-verbal member is determined on the basis of the node's relation to its governing node. The effective root node of the verbal clause has always the same functor as the terminal element not representing a verb.

In the case of mixed parataxis of a non-dependent verbal clause and a non-dependent nominative clause, the functors of the terminal members of the paratactic structure are determined with the help of the rules described in Section 6.4, "Verbal and non-verbal clauses".

Figure 6.89. Functors of the terminal members of a paratactic structure

pracovní doba osmihodinová a bez přestávky (=lit. working hours eight-hour and without (a) break)
Figure 6.90. Functors of the terminal members of a paratactic structure

čistá pracovní doba, tj. bez přestávky (=lit. net working hours, i.e. without (a) break)

Figure 6.91. Functors of the terminal members of a paratactic structure


Udělali to s úžasem, tedy dobře. (=lit. (They) did it with astonishment, therefore well.)
Figure 6.92. Functors of the terminal members of a paratactic structure


Poslal dopis domu a dědečkovi. (=lit. (He) sent (a) letter home and (to) (the) grandfather.)

### 6.6.1.4. Embedded paratactic structures

Paratactic structures can also be embedded: an entire paratactic structure can be a member of another paratactic structure.

In such a case, a direct daughter of a paratactic structure can be a root node of another (i.e. the embedded) paratactic structure. The root node of an embedded structure has the attribute is _member filled with the value 1 .

Compare:

- Akela, náčelník zdejšich skautů, a Medvěd, náčelník spráateleného střediska, zasedli k táborovému ohni. (=lit. Akela, (a) chieftain (of) local scouts, and Medvěd, (a) chieftain (of) (a) befriended group sat_down to (a) campfire -.)
$=$ coordination of two appositions.
The direct daughters of the root node of the paratactic structure (i.e. of the node representing the conjunction $a(=a n d)$ ) are the root nodes of the embedded appositional structures (i.e. the nodes representing the commas). The value of their is_member attribute is 1. Cf. Fig. 6.93.
- Stroj funguje, ale ne optimálně, a proto ho musíme bud' opravit, nebo koupit nový. (=lit. (The) machine works but not optimally and therefore it (we) must either mend or buy (a) new (one).)
$=$ coordination of two embedded coordinations.
The direct daughters of the root of the (non-embedded) paratactic structure (i.e. of the node representing the conjunction $a(=a n d)$ ) are the root nodes of the embedded paratactic structures (i.e. the nodes representing the conjuctions ale (=but) and nebo (=or)). The value of their is_member attribute is 1. Cf. Fig. 6.94.

Shared modifier with embedded paratactic structures. A shared modifier modifies all terminal members of the relevant (modified) paratactic structure. Hence, it also modifies the terminal members of all embedded paratactic structures.

Therefore, it is always necessary to decide which root node of which paratactic structure is the appropriate mother of the shared modifier, i.e. which terminal members of which embedded paratactic structures are really modified. Cf.:

- Petr celý den pracoval na své disertaci a připravoval se na zkoušku z angličtiny, ale večer už nedělal nic. (=lit. Petr all day was_working on his thesis and (he) was_studying - for (the) exam in English but in_the_evening already (he) was_not_doing anything.)

The last clause is coordinated with the coordination of the first two clauses. The Actor Petr is a shared modifier of all the three governing predicates; therefore, it is represented as a direct daughter node of the conjunction ale (=but). Cf. Fig. 6.95.

- Petr celý den pracoval na své disertaci a připravoval se na zkoušku z angličtiny, zato Honza nedělal nic. (=lit. Petr all day was_working on his thesis and (he) was_studying - for (the) exam in English while Honza was_not_doing anything.)

The last clause is coordinated with the coordination of the first two clauses. The Actor Petr is a shared modifier only of the governing predicates in the embedded structure. Therefore, it is represente as a direct daughter of the node for the conjunction $a(=a n d)$. Cf. Fig. 6.96.

Shared modifiers can often indicate levels within paratactic structures. However, this is not crucial. For example, in the sentence Tento stroj se vyráběl u nás, posilal se do zahraničí a tam ho teprve firmy prodávaly do továren (=lit. This machine - was_produced by us, (it) was_sent - (to) abroad and there it only firms sold to factories.), discussed above (see Section 6.6.1.1, "Shared modifier of paratactically connected elements"; cf. Fig. 6.83 ), no such levels are found.

Figure 6.93. Embedded paratactic structures


Akela, náčelnik zdejšich skautů, a Medvěd, náčelnik spřáteleného střediska, zasedli k táborovému ohni. (=lit. Akela, (a) chieftain (of) local scouts, and Medvěd, (a) chieftain (of) (a) befriended group sat_down to (a) campfire -.)

Figure 6.94. Embedded paratactic structures


Stroj funguje, ale ne optimálně, a proto ho musime bud'opravit, nebo koupit nový. (=lit. (The) machine works but not optimally and therefore it (we) must either mend or buy (a) new (one).)

Figure 6.95. Shared modifiers with embedded paratactic structures


Petr celý den pracoval na své disertaci a připravoval se na zkoušku z angličtiny, ale večer už nedělal nic. (=lit. Petr all day was_working on his thesis and (he) was_studying - for (the) exam in English but in_the_evening already (he) was_not_doing anything.)

Figure 6.96. Shared modifiers with embedded paratactic structures


Petr celý den pracoval na své disertaci a připravoval se na zkoušku z angličtiny, ale Honza nedělal nic. (=lit. Petr all day was_working on his thesis and (he) was_studying - for (the) exam in English while Honza was_not_doing anything.)

### 6.6.2. Coordination and apposition

Only those connections are considered coordination or apposition that are formally paratactic, i.e. those making use of coordinating connectives (each connective is considered either coordinating, or subordinating on the basis of certain formal and semantic criteria; for more details on coordinating connectives see Section 8.16.1, "Co-ordinating connectives").

Concerning hypotactic connections with a potential meaning of coordinating functors (see Section 7.12.1, "Functors for coordination"), we respect the fact that the speaker has chosen the hypotactic form and we do not assign the sentence a paratactic structure. Semantically equivalent connections, one in a paratactic and the other one in a hypotactic form, therefore, have two different but equivalent functors, one for a paratactic connection and the other for a hypotactic connection. Cf.:

- Pospichal, ale.ADVS přesto nám pomohl. (=lit. (He) was_in_a_hurry but yet (he) us helped.)
- $\leq$ Přestože > pospichal.CNCS, pomohl nám. (=lit. Although (he) was_in_a_hurry but yet (he) helped us.)
- <Zatímco> loni ceny zboži klesaly.CONTRD, letos se zvyšují. (=lit. While last_year prices (of) goods were_decreasing, this_year-(they) are_increasing.)
- Loni ceny zboži klesaly, á.CONFR letos se naopak zvyšují. (=lit. Last_year prices (of) goods were_decreasing, and this_year - on_the_contrary (they) are_increasing.)

False dependent clauses and expressions like tatineks maminkou (=lit. daddy with mummy) are also not represented as coordination. The annotation of false dependent clauses is described in Section 6.5.4, "False dependent clauses", the annotation rules for expressions like tatinek s maminkou (=lit. daddy with mитту) are in Section 6.11.1.1, "Ambiguous relations with adjuncts expressed by prepositional phrases".

As for apposition, only the so-called loose apposition, separated by a comma is considered apposition; e.g.:
český král, Karel (=lit. (the) Czech king, Karel)
hlavní město, Praha (=lit. (the) capital -, Prague)
If the connection is not loose (no comma; e.g.: českýkrál Karel (=lit. Czech king Karel); hlavní město Praha (=lit. (the) capital Prague); stalo se to v Praze na Vyšehradě (=lit. (it) happened -in Prague at Vyšehrad); v únoru v roce 1999 (=lit. in February in year 1999)), the expression is not considered apposition and the annotation follows different rules (see especially Section 6.11.3, "Mutual relation of two or more locative/directional or temporal modifications").

### 6.6.2.1. Special constructions represented as coordination or apposition

The following special constructions are also represented in the form of coordination or apposition:

- special constructions - coordination:
- coordinations with atd. (=etc.), apod. (=and the like), aj. (see Section 6.6.2.1.1, "Coordination with "atd.", "apod.", "aj."").
- special constructions - apposition:
- appositions with modifications additionally connected (by means of the following expressions: a to, a sice; see Section 6.6.2.1.2, "Apposition with an additional modification (connected by means of "a to", "a sice")"),
- appositions with the conjuction jako (=such as/like) (see Section 6.6.2.1.3, "Apposition with the conjunction "jako""),

Constructions connected by means of $\operatorname{což}(=w h i c h)$ are also considered paratactic (these constructions are described in Section 6.5.4.1.1, "Constructions with the connectives "což", "přičemž", "načež", "pročež", "začež", "aniž""); the same applies to certain special structures such as addresses, sport results, abbreviated forms in brackets following the full expression etc. These cases are described in Section 8.12, "Annotation of structured text".

### 6.6.2.1.1. Coordination with "atd.", "apod.", "aj."

Expressions (lists) ending with apod., atd., aj. or three dots are also represented as coordinations; the root nodes of these structures are assigned the CONJ functor.

The root node of such a paratactic structure is represented by the node representing the comma ( $t$ _lemma=\#Comma), or by a newly established node with the $t$-lemma \#Separ (if there is no comma present in the surface structure of the sentence). The node representing the abbreviation or three dots ( $t$ _lemma=\#Period3) is represented as a terminal member of the paratactic structure and its functor
is identical to the functors of the other terminal members; the value of its is_member attribute is also 1 .

Examples:
Obtěžoval ho hmyz.ACT [is_member=1] apod.ACT [is_member=1] \{\#Separ.CONJ\} (=lit. Bothered him insect, and_similarly.) Fig. 6.97

Rádi navštěvujeme hrady.PAT [is_member=1], zámky.PAT [is_member=1], skanzeny.PAT [is_member=1] apod..PAT [is_member=1] [\#Comma.CONJ] (=lit. (We) like visiting castles, manors, open-air_museums and_similarly.)
$V$ koupelně musí téct.PRED [is_member=1] teplá voda, v obývacím pokoji nesmí chybět.PRED [is_member=1] televize, kuchyněse neobejde. PRED [is_member=1] bez myčky na nádobíatd..PRED [is_member=1][\#Comma.CONJ] (=lit. In (the) bathroom has_toflow hot water, - (the) living room must_not lack television,(the) kitchen cannot_do without (a) dishwasher - - and_so_on.)

Naše škola nabizí řadu volitelných předmětů: cizí jazyky.PAT [is_member=1] , religionistiku. PAT [is_member=1], rodinnou výchovu.PAT [is_member=1] , aj..PAT [is_member=1] [\#Comma.CONJ] (=lit. Our school offers (a) range (of) optional courses: foreign languāges, religion, family education etc.)

Non-abbreviated form. If the expression does not occur in its abbreviated form but in the full one ( $a$ podobně (=lit. and similarly), a tak dále (=lit. and so on), a jiné (=lit. and others)), the paratactic structure root node is represented by the node for the conjunction $a(=a n d)$. The remaining parts of the expression (podobně (=similarly), jiné (=others), tak dále (=so on)) are represented as a terminal member of the paratactic structure. If the remaining part consists of more words (tak dále (=so on)) it is represented as a non-verbal idiomatic expression (see Section 6.8.1, "Non-verbal idioms").

## Example:

Obtězoval ho hmyz.ACT [is_member=1] a.CONJ podobně.ACT [is_member=1] (=lit. Bothered him insect, and_similarly) Fig. 6.98

Figure 6.97. Coordination with "apod."


Obtěžoval ho hmyz apod. (=lit. Bothered him insect, and_similarly.)
Figure 6.98. Coordination with the full form of the abbreviation ("a podobně)"


Obtěžoval ho hmyz a podobně. (=lit. Bothered him insect, and_similarly.)

### 6.6.2.1.2. Apposition with an additional modification (connected by means of "a to", "a sice")

Additional modifications connected by means of a to, a sice are considered to be verbal clauses with the governing verb elided; such a clause is connected in apposition (the meaning is that of specification, giving a concrete example).

These constructions are represented as clausal parataxis (see Section 6.6.1.2, "Parataxis of sentence parts, parataxis of clauses and mixed parataxis"), as apposition of two predicates. The node representing the governing verb of the preceding clause is copied into the second clause.

Dependent modifications of the predicate in the first clause can be usually represented as shared modifiers.

If the additional modification is a valency modification, it is represented by a node with the t-lemma \#Gen in the subtree of the first clause.

The paratactic structure root node is represented by the nodes for the connectives $a$ to ( t _lemma=a_to) or a sice ( t _lemma=a; sice is assigned a separate node with the functor CM ; see Section 8.16.1, "Coordinating connectives").

Compare:

- Ve zdravotnictví přidávali, a to lékařům. (=lit. In health_services (they) raised_salaries, and that (those) (of) doctors.)
$=V e$ zdravotnictví přidávali, a to přidávali lékařům. (=lit. In health_services (they) raised_salaries, and that (they) raised_salaries (of) doctors.)

In the second clause, there is ellipsis of the governing predicate přidávat (=to_raise_(one's)_salary). There is a relation of apposition between the expressed predicate of the first clause and the elided predicate of the second clause. Since the additional modification (the Addressee lékařum (=to_doctors)) is a valency one, the absent Addressee of the predicate in the first clause is represented by a newly established node ( $t \_l e m m a=\# G e n$ ). The Patient, absent in the surface structure, is represented as a shared modifier of both predicates. Cf. Fig. 6.99.

Other examples:
Studenti se sjedou.PRED [is_member=1] na demonstraci, a to.APPS \{ sjet_se.PRED [is_member=1]\} do Prahy. (=lit. Students will_gather for (a) demonstration, and that to Prague.)

České dráhy chtěejí pronajímat.PRED [is_member=1] \{\#Gen.ADDR\} prostory v železničnich stanicích, a.APPS sice $\{$ pronajímat. PRED [is_member=1] \} vždy jednéfirmé.ADDR (=lit. (The) Czech railways want_to rent (the) space of railway stations, and that always (to) one firm.)

Asyndetically connected additional modifications. Modifications connected simply by means of a punctuation mark followed by a rhematizer are represented in a way similar to additional modifications connected by a to, a sice.

The node representing the governing verb of the preceding clause is copied into the second clause. The node representing the rhematizer depends on the node representing the verb as the left-side sister of the additional modification.

The root node of the appositional structure is represented by the node for the comma (t_lemma=\#Comma).

Examples:

Společnost spravuje.PRED [is_member=1] 80 budov, převážně.RHEM \{ spravovat.PRED [is_member=1]\} v Tokiu. (=lit. (The) company administers 80 buildings, mainly in Tokio.) Fig. 6.100

Ve zdravotnictví přidávali.PRED [is_member=1] \{\#Gen.ADDR\}, zejména.RHEM \{ přidávat.PRED [is_member=1]\} lékařům. (=lit. In health_services (they) raised_salaries, especially (those) (of) doctors.)

NB! If there is no comma in the construction (e.g. Společnost spravuje 80 budov převážně v Tokiu. (=lit. (The) company administers 80 buildings, mainly in Tokio.)), there is no apposition in the construction.

Figure 6.99. Apposition with an additional modification connected by "a_to"


Ve zdravotnictví přidávali, a to lékařům. (=lit. In health_services (they) raised_salaries, and that (to) doctors.)

Figure 6.100. Apposition with an additional modification


Společnost spravuje 80 budov, preveážně v Tokiu. (=lit. (The) company administers 80 buildings, mainly in Tokio.)

### 6.6.2.1.3. Apposition with the conjunction "jako"

Within mixed appositions (a noun and a clause), a special type of construction is represented by a construction with the conjunction jako (=such_as/like).

There are two basic situations:

## - the conjunction "jako" is followed by a clause with the verb "být".

If the conjunction jako (=such_as/like) is followed by a clause the governing verb of which is být (=to_be), a mixed apposition of a noun and this verb is represented in the tree. The node representing the verb být (=to_be) has the same functor as the node representing the non-verbal terminal member of the apposition (i.e. the node representing a noun).

The verb být (=to_be) is a copula in such cases (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)"), therefore, the node representing the nominal part of the verbonominal predicate (functor=PAT) is copied under the node for být (=to_be); this nominal part is the first member of the apposition.

Compare:

- Váže těžké kovy, jako je plutonium. (=lit. (It) binds (to) heavy metals such_as - plutonium.)

In the tree, there is a mixed apposition: between the node representing the noun kovy (=metals) and the node representing the verb být (=to_be). The modification kovy (=metals) represents the Patient of the verb vázat (=to_bind). The node representing the verb být (=to_be) has also the PAT functor. The newly established node for the nominal part of the predicate (this node is a copy of the node representing the noun kovy (=metals)) depends on the node for být (=to_be). Cf. Fig. 6.101.

Other examples:

Nechybí osobnosti.ACT [is_member=1], jako.APPS byli.ACT [is_member=1] A. Loos, J. Hoffmann \{osobnost.PAT\} (=lit. (There)_(is) _no)_lack (of) personalities like A. Loos, J. Hoffmann.)

Vzruch přinášejí skladby.ACT [is_member=1] s nervní kytarou, jako.APPS je.ACT [is_member $=1]$ divoké Kiss $\{$ skladba. $\operatorname{PAT}\}$ (=lit. Excitement bring compositions with (a) nervous guitarre such_as - wild Kiss.)

## - the conjunction" jako" is not followed by a clause with "být".

If there is no verb být (=to_be), it is necessary to identify the elements between which there is the apposition relation.

The conjunction "jako" is followed by a noun phrase with its governing element in the nominative.. If the conjunction jako (=such_as/like) is followed by a noun phrase with its governing element in the nominative form, there is a mixed apposition in the tree: between the node representing the noun and a newly established node for an empty verb (the empty verb substitutes for the elided verb být (=to_be), t_lemma=\#EmpVerb). The newly established node has the same functor as the node representing the first member of the apposition. The node representing the expressed modification in the nominative depends on the node for the empty verb and its functor is ACT. Cf.

- Přijeli do měst, jako Praha, Brno a Ostrava. (=lit. (They) came to towns like Prague, Brno, Ostrava.)

In the tree, there is a mixed apposition of the node representing the prepositional phrase $d o$ měst (=lit. to towns) and the newly established node representing an empty verb. The prepositional phrase do měst (=lit. to towns) is a modification with a directional meaning, it is assigned the functor DIR3, the node representing the empty verb is assigned the same functor: DIR3. The nodes representing the modifications Praha, Brno and Ostrava depend on the node representing the empty verb and they are assigned the ACT functor. Cf. Fig. 6.102.

NB! No node representing the nominal part of the verbonominal predicate is inserted into the structure under the empty verb ( $t$ _lemma=\#EmpVerb)!

The conjunction "jako" is not followed by a noun phrase the governing element of which has the nominative form. If the conjunction jako (=such_as/like) is followed by a prepositional phrase or a noun phrase (in a non-prepositional case form) in the form identical to that of the other member of the apposition, the structure is interpreted as apposition of sentence parts. Cf.

- Přijeli do měst, jako do Prahy, Brna, Ostravy. (=lit. (They) came to towns such_as to Prague, Brno, Ostrava.)

In the tree, there is apposition of sentence parts between the prepositional phrase do měst (=in towns) and the coordination of the prepositional phrases do Prahy, Brna a Ostravy (=lit. to Prague, Brno, Ostrava). The terminal members of the apposition will be represented by four nodes: do měst (=to towns), do Prahy (=to Prague), do Brna (=to Brno), do Ostravy (=to Ostrava). Cf. Fig. 6.103.

Other examples:
Organizoval kulturní akce.PAT [is member=1] ,jako.APPS třeba poláčkovskou konferenci.PAT [is_member=1] v Rychnově. (=lit. (He) organized cultural events such_as for_example (the) (on)_Poláček conference in Rychnov.)

The root node of the apposition is always the conjunction jako (=such_as/like).

Figure 6.101. Mixed apposition with the conjunction "jako"


Váže těžké kovy, jako je plutonium. (=lit. (It) binds to heavy metals such_as - plutonium.)

Figure 6.102. Mixed apposition with the conjunction "jako"


Přijeli do měst, jako Praha, Brno a Ostrava. (=lit. (They) came to towns such_as Prague, Brno and Ostrava.)

Figure 6.103. Apposition of sentence parts with the conjunction "jako"


Přijeli do měst, jako do Prahy, Brna, Ostravy. (=lit. (They) came to towns such_as to Prague, Brno, Ostrava.)

### 6.6.3. Connecting elements when expressing mathematical operations and intervals

Also some connections of elements expressing mathematical operations and intervals are represented in the form of a paratactic structure - even if such a connection has a hypotactic form (see Section 8.16.2, "Operators").

Compare:

- Můžě̌ ziskat od pěti po deset bodů. (=lit. (You) can get from five to ten points.)

The interval pět - deset (=lit. five - ten) is represented as a paratactic structure in the tectogrammatical tree, even though hypotactic means are used. The root node of the paratactic structure is represented by the node for the operator od -po (=lit. from - to) ( t _lemma=od_do; functor=OPER ). The nodes representing the members of the interval ( t _lemma=pět, $\mathrm{t}_{-}$lemma=deset) are the terminal elements of the paratactic structure. The value of the is_member attribute is $1 . \mathrm{Cf}$. Fig. 6.104.

These constructions are described in detail in Section 8.11, "Mathematical operations and intervals".

Figure 6.104. Expressing an interval


Můžeš ziskat od pěti po deset bodů. (=lit. (You) can get from five to ten points.)

### 6.7. Parenthesis

Parenthesis is such a sequence of words that does not belong to the basic level of the text but it rather interrupts it by inserting additional information, explanation, evaluating remarks etc. Parenthesis is usually differentiated from the basic text level by certain typographic means (dashes, brackets), and can but does not have to take part in the syntactic relations of the sentence.

Examples:
10.20 Prodaná nevěsta (záznam představení divadla Drak) (=10.20 The Bartered Bride (TV recording of the performance))

Vymazal tak Holand’ana Oelmana (7575 bodi̛) ze světových tabulek. (=He deleted Oelman (7575 points) from the tables)

Přestože byl Telegraf z českých novin duchovně snad nejvice spjat s vládní politikou - především s ODS, nerozpakoval se ostře kritizovat některé její kroky z poslední doby. (=Although Telegraf was very closely linked to the government politics - especially ODS - ...)

On byl vždycky přisný (učitel). (=He's always been strict (as a teacher)) Fig. 6.105
Přišel tam Petr ( $\underline{\text { Pavel }) . ~(=P e t r ~(a n d ~ P a v e l) ~ c a m e) ~ F i g . ~} 6.106$
Parenthesis is marked in the tree with the help of the is_parenthesis attribute. All nodes representing the individual parts of a parenthesis are assigned the 1 value (in the attribute; see also Table 6.4, "Values of the is_parenthesis attribute"). The reason for marking all the parts is the so called
"discontinuous, incomplete" parenthesis - these are those cases when only a part of a subtree is a (part of a) parenthesis.

## Table 6.4. Values of the is_parenthesis attribute

0 node representing an expression that is not part of a parenthesis
1 node representing an expression that is part of a parenthesis
If the is_parenthesis attribute is assigned no value, the 0 value is assumed.
There are the following types of parenthesis:

- parenthesis proper (see Section 6.7.1, "Parenthesis proper"),
- lexicalized parenthesis (see Section 6.7.2, "Lexicalized parenthesis").


## Figure 6.105. Discontinuous parenthesis



On byl vždycky přisný (učitel). (=lit. He was always strict (teacher))

Figure 6.106. Discontinuous parenthesis


Přišel tam Petr (a Pavel). (=lit. Came there Petr (and Pavel))
NB! Most segments in brackets are analyzed as parentheses. An exception are cases when the brackets contain the full wording of an abbreviation, or the other way round; e.g.:

ODS (Občanská demokratická strana)
Občanská demokratická strana (ODS)
These cases are analyzed as cases of apposition. The nodes representing the expressions in brackets do not have the 1 value in the is_parenthesis attribute (see also Section 6.6, "Parataxis").

### 6.7.1. Parenthesis proper

Parenthesis proper is a parenthesis used just in a given context (situation).
This type can be further classified:

## - parenthesis integrated in the syntax of the sentence.

If the parenthesis is syntactically integrated in the sentence, its effective root node is assigned a functor according to the type of dependency (it has w.r.t. its governing node).

Examples:
On byl vždycky přisný (učitel.PAT ). (=lit. He was always strict (teacher)) Fig. 6.105
Podmětem (jestliže vyjadřuje.COND činnost), může být i infinitiv. (=The subject (if it expresses an activity) can also be an infinitive) Fig. 6.107

Pavel Novák (z Prahy.DIR1 ). (=P.N. (from Praha)) Fig. 6.41
Vidím náš dům (a naši zahradu.PAT ). (=I can see our house (and our garden))

Mužstvo (které loni zvittězilo.RSTR ) skončilo až třetí. (=The team (which won last year) took third place)

## - parenthesis not integrated in the syntax of the sentence.

If the parenthesis is not syntactically integrated in the syntax of the sentence, it is analyzed as an independent clause (see Section 6.4, "Verbal and non-verbal clauses"). The annotation varies with the clause type:

- if the syntactically non-integrated parenthesis is a verbal clause (the PRED functor) or a nominative clause (the DENOM functor), the effective root nodes of the parenthesis are assigned the PAR functor.

Examples:
Pavel Novák (Praha.PAR ). Fig. 6.109
Mužstvo skončilo až třetí (loni bylo.PAR první). (=The team took only third place (last year they won)) Fig. 6.110

Žádná města (jen \{ hrát.PAR\} Praha) nehrála tak významnou úlohu. (=No towns (only Praha) played such an important role) Fig. 6.111

Přijel na chatu (čekali.PAR ho a těsili se.PAR). (=He came to the cottage (they had been waiting for him and looking forward to seeing him)) Fig. 6.112

The root node of a syntactically non-integrated parenthesis, whose effective roots are assigned the PAR functor, is assigned a value in the sentmod attribute (see Section 5.7, "The sentmod attribute").

- if the syntactically non-integrated parenthesis is a vocative clause (the VOCAT functor) or an interjectional clause (the PARTL functor), the effective root nodes of the parenthesis are assigned the appropriate functors, i.e. VOCAT or PARTL (and not PAR). If the vocative or interjectional clause is clearly a parenthesis (it is marked by brackets or dashes, for example), all the nodes of the parenthesis are assigned the 1 value in the is_parenthesis attribute.

The effective root nodes of vocative and interjectional clauses are never assigned the PAR functor. They are assigned the VOCAT or PARTL functor even if they occur lower in the structure (see also Section 6.4.3, "Connecting verbal and non-verbal clauses").

Example:
Zase nesehnal práci (ach.PARTL ). [is_parenthesis=1] (=He didn't find a job again (oh dear))

The root node of a parenthesis is represented as immediately dependent on the node the parenthesis most directly relates to.

Parentheses can also be found used on their own (then, they are always typographically marked, usually by using brackets). For example:
(strana 4) (=(page 4)) Fig. 6.113
(Pardon!) Fig. 6.114
(av, čtk) Fig. 6.115

If the independent parenthetic clause is a verbal or nominative clause, its effective root node has the PAR functor (cf. Fig. 6.113 and Fig. 6.115). If it is a vocative or interjectional clause, its effective root node has the VOCAT or PARTL functor (cf. Fig. 6.114).

Figure 6.107. Parenthesis integrated in the syntax of the sentence


Podmětem (jestliže vyjadřuje činnost), může být i infinitiv. (=lit. Subject (if expresses activity) can be also infinitive)

Figure 6.108. Parenthesis integrated in the syntax of the sentence


Pavel Novák (z Prahy). (=lit. Pavel Novák (from Praha))

Figure 6.109. Parenthesis not integrated in the syntax of the sentence

```
O
9
Novák.enunc
f_DENOM
n.denot 
anim.sg
person_name.
b
    Pavel Praha.enunc
    f_RSTR f_PAR_P
    n.denot n.denot
    anim.sg fem.sg
    person_name
```

Pavel Novák (Praha).
Figure 6.110. Parenthesis not integrated in the syntax of the sentence


Mužstvo skončilo až třetí (loni bylo prvni). (=lit. Team ended only third (last_year was first))

Figure 6.111. Parenthesis not integrated in the syntax of the sentence


Žádná města (jen Praha) nehrála tak významnou úlohu. (=lit. No towns (only Praha) not played such important role)

Figure 6.112. Parenthesis not integrated in the syntax of the sentence


Přijel na chatu (čekali ho a tě̌̌ili se). (=lit. (He) came to cottage ((they) waited for_him and looked forward to REFL))

Figure 6.113. Independent parenthetic clause

(strana 4) (=lit. (page 4))

Figure 6.114. Independent parenthetic clause

```
O
root
o
pardon.enunc
f_PARTL_P
atom
```

(Pardon!)
Figure 6.115. Independent parenthetic clause

(av, $\check{c} t k)$
Parenthesis introduced by a coordinating connective. A special subtype of syntactically integrated parenthesis are cases when there is coordination in the sentence and one of the coordinated expressions is marked as a parenthesis. For example:

Přišel tam Petr (a Pavel). (=Petr (and Pavel) came there) Fig. 6.106
Věc se vyřeší (nebo taky nevyřeši). (=The thing will be solved (or it will not)) Fig. 6.116
Kup rohliky (a máslo). (=Buy some rolls (and butter))
Those members of a paratactic connection that are a parenthesis are analyzed in accordance with the rules for paratactic structures (see Section 6.6.1, "Representing parataxis in a tectogrammatical tree"), i.e. they depend directly on the root node of the paratactic structure. All nodes that are part of a parenthesis have the 1 value in the is_parenthesis attribute. If the connective (i.e. the paratactic structure root node) is also part of the parenthesis, it also has the value 1 in the is_parenthesis attribute.

This way of representing coordinated parenthetic expressions is only used if the parenthesis is clearly integrated in the syntax of the sentence. The following examples are analyzed as syntactically non-integrated parentheses:
$V$ dobrých zahraničnich restauracich (a nemusí to být vždy nejdražši) by se tohle nikdy nestalo. (=In good restaurants in other countries (and these don't have to be the most expensive ones), this would never happen) Fig. 6.117

Čína je nyní, a já doufám, že i nadále bude, důležitý partner USA. (=China is (and I hope it also will be) an important partner of the USA)

Takoví lidé, a patří mezi ně i pan předseda, nemají ve vedení co dělat. (=Such people (and the chair is one of them) should not be in the management)

In the examples above, the segments introduced by coordinating connectives are represented as parentheses syntactically non-integrated in the sentence. The effective root node of the parenthesis is assigned the PAR functor, the connective gets the PREC functor and depends on the node with the PAR functor.

Figure 6.116. Parenthesis integrated in the syntax of the sentence


Věc se vyřeši (nebo taky nevyřeši). (=lit. Thing REFL solves (or also not_solves))

Figure 6.117. Parenthesis not integrated in the syntax of the sentence

$V$ dobrých zahraničnich restauracích (a nemusí to být vždy nejdražší) by se tohle nikdy nestalo. (=In good foreign restaurants (and not_have_to it be always the_most_expensive) would REFL this never happen)

### 6.7.2. Lexicalized parenthesis

Lexicalized parenthesis is a lexicalized, set parenthesis, which is turning into a mere particle. Lexicalized parentheses are formed by a finite verb form, which can have a residue of its valency requirements.

Examples:

To se, nedej bůh, snad nestane. (=This will, I pray, never happen) Fig. 6.119
To vite, dnes čas utiká tak rychle. (=Time fies, you know)
The effective root node of lexicalized parentheses are assigned the ATT functor (nodetype=atom). The t-lemma is the frozen present form, not the infinitive (see also Section 4.2, "The relation between a node's $t$-lemma and $m$-lemma and between its $t$-lemma and word form"). If there are any nodes modifying the effective root node of the lexicalized parenthesis, the get the DPHR functor (multi-word lexicalized parentheses are treated as non-verbal idioms; see Section 6.8.1, "Non-verbal idioms"). All nodes that are part of a (lexicalized) parenthesis have the 1 value in the is_parenthesis attribute.

The effective root node of a lexicalized parenthesis depends immediately on the effective root node of the clause the parenthesis is inserted in.

Expressions like bohudiky (=thank_God), zajisté (=sure), pochopitelně (=naturally) are not analyzed as parenthetic; they are usually assigned the ATT functor but the value of their is_parenthesis attribute is usually 0 .

Figure 6.118. Lexicalized parenthesis


Dnes je, myslím, středa. (=lit. Today is, I_think, Wednesday)
Figure 6.119. Lexicalized parenthesis


To se, nedej bůh, snad nestane. (=lit. This REFL, not_give God, hopefully not_happen)

### 6.7.3. Special cases of parenthesis

In the present subsection, two special cases are discussed, which are also analysed as cases of parenthesis:

- constructions with the inversed syntactic relation between the clauses (see Section 6.7.3.1, "Inversed syntactic relation between clauses"),
- the speaker's comments such as "aby bylo jasno (=let's get this clear)" (see Section 6.7.3.2, "The speaker's comments such as "aby bylo jasno""').

Cases of two parentheses, one being part of the other (parenthesis in parenthesis), are not treated in any special way.

### 6.7.3.1. Inversed syntactic relation between clauses

Cases of inversed syntactic relation between clauses are such constructions in which the inserted clause (Soud, zdá se, nemyslí si o tom nic. (=The Court, it seems, does not take a stand on this)) or the clause introduced by the connective jak (Soud, jak se zdá, nemyslí si o tom nic. (=The Court, it seems, does not take a stand on this)) is in fact the governing clause. Usually, one argument is missing among the modifications of the verb in the original governing clause, which is expressed by the original content clause. Constructions with the connective $j a k$ and constructions without it are synonymous. The connective jak does not carry any meaning exactly because there is the inversed syntactic relation. Both types of construction are thus analyzed in the same way (the possible connective jak is not assigned a separate node at the tectogrammatical level).

The original governing clause is represented as a parenthesis. Its effective root node has the PAR functor and depends on the effective root node of the original content clause. The missing argument of the verb in the original governing clause is represented by a newly established node with the t-lemma substitute \#PersPron and an appropriate functor. There is a textual coreference relation between the newly established node and the effective root node of the original content clause (see also Section 9.3, "Textual coreference"). All nodes of the subtree representing the original governing clause are assigned the value 1 in the is_parenthesis attribute.

Examples:
Soud, zdá se.PAR, nemyslí si o tom nic. (=The Court, it seems, does not take a stand on this)
Soud, $\leq j a k>$ se mi zdá.PAR, nemyslí si o tom nic. / Soud, zdá se.PAR mi, nemyslí si o tom nic. (=The Court, (as) it seems to me, does not take a stand on this) Fig. 6.120
$\leq$ Jak $>$ známo.PAR , odešel. (=As we all know, he left) Fig. 6.121
$\leq$ Jak $>$ řekl.PAR Karel, stalo se to již včera. (=As Karel said, it happened already yesterday) Fig. 6.122

In some cases, none of the arguments of the verb (in the original governing clause) has to be missing. The argument (which is in fact the original content clause) can also be expressed by the pronoun ten. For example:

Jak to řekl Karel, stalo se to již včera. (=As Karel put it, it happened already yesterday)
In such cases, no new node with the \#PersPron t-lemma is inserted into the structure; there is a coreferential relation between the node for the pronoun and the effective root node of the original content clause.

Figure 6.120. Inversed syntactic relation between clauses


Soud, jak se mi zdá, nemyslí si o tom nic. (=lit. Court, as REFL to_me seems, not_thinks REFL about it nothing)

Figure 6.121. Inversed syntactic relation between clauses


Jak známo, odešel. (=lit. As known, (he) left)

Figure 6.122. Inversed syntactic relation between clauses


Jak řekl Karel, stalo se to již včera. (=lit. As said Karel, happened REFL it already yesterday)

### 6.7.3.2. The speaker's comments such as "aby bylo jasno"

Clauses introduced by the conjunction aby in constructions like Aby bylo jasno, já jsem tu pánem. (=Let's get this clear: I am the boss here), which are a type of comment, are parenthetic in nature.

Such comments are very close to lexicalized parentheses; they get the PAR functor and all nodes of the relevant subtree are assigned the value 1 in the is_parenthesis attribute. The conjunction $a b y$ is not assigned a separate node.

Examples:
$\leq A b y>$ bylo.PAR jasno, já jsem tu pánem. (=Let's get this clear: I am the boss here) Fig. 6.123
Voda se kupodivu, $\leq$ abych $>$ tak řekl.PAR, umoudřila. (=The water settled down, so to speak)
$\leq$ Abych $>\check{r}$ ekl. PAR pravdu, mně se to ani trochu nelibi. (=To tell you the truth, I don't like it here at all)

Já mu totiž, <abych> se přiznal.PAR , nevěřil. (=To be frank, I didn't believe him)
$\leq$ Abyste $\geq$ mi rozumél. PAR , já jsem to tak nechtél. (=Don't be mistaken, I didn't want it)
These comments should not be confused with false purpose clauses like Odešel, aby se už nevrátil. ( $=$ He left not to come again), which are analyzed as dependent clauses with the AIM functor assigned to their effective root nodes (see also Section 6.5.4.2, "False dependent conjunctional clauses").

Figure 6.123. Comments of the type "Aby bylo jasno"


Aby bylo jasno, já jsem tu pánem. (=lit. So_that (it) was clear, I am here boss)

### 6.8. Idioms (phrasemes)

Idioms/phrasemes (idiomatic/phraseologic constructions) are combinations of two or more words with a fixed lexical content, which together constitute one lexical unit with a metaphorical meaning (which cannot be decomposed into the meanings of its parts).

Each idiomatic expression has two parts:

- the governing part.

The governing element of the connected elements is the governing part of the phraseme (idiom).
Two groups of idiomatic expressions are distinguished depending on the type of the governing part:

- non-verbal idioms (Section 6.8.1, "Non-verbal idioms").

The governing element (effective root) of the idiom is not a finite verb form.

- verbal idioms (Section 6.8.2, "Verbal idioms").

The governing element (effective root) of the idiom is a finite verb form.

## - the dependent part.

The dependent part of the idiom is constituted by all the other expressions that are part of the idiom.
Representing idioms in the tectogrammatical trees. Idioms are always represented by two nodes the mother node and its direct daughter. The mother node represents the governing part of the idiom and its functor is assigned according to the position of the whole idiom in the sentence structure. The dependent part of the idiom is represented by its daughter with the functor DPHR (nodetype=dphr; see Section 3.6, "Nodes representing the dependent parts of idiomatic expressions") indicating the fact
that this node together with its mother node constitute an idiom. The t-lemma of the node with functor DPHR consists of all the dependent parts of the idiom (including the prepositions) conjoined by underscore characters in the order in which they occurred in the surface form of the sentence (see Section 4.3, "T-lemmas of multi-word (complex) lexical units").
!!! We can only capture as idioms those expressions which are represented by at least two nodes in the tectogrammatical tree. One-word (one-node) idioms are not represented as idioms in the tree. For example in the combination chlapec k pohledání ( $=\mathrm{a}$ boy to look for) the prepositional phrase gets the functor RSTR, and it is not indicated that this is an idiom.
!!! We take an idiom to be one lexical unit even though we represent it as two nodes in the tectogrammatical tree. Ideally, the idiom would be represented by a single node in the tree. However, this solution is only used for the dependent part of the idiom so far.

### 6.8.1. Non-verbal idioms

By the term non-verbal idiom we mean an idiom the governing part of which is not a regularly inflected verb. The governing part of a non-verbal idiom can be a verb, but then the verb does not occur in the given combination in its whole paradigm, it is always a more or less petrified verb form (e.g.: stiuj co stůj (=at any cost); chtě nechtě (=willy nilly)). The dependent parts of the idiom have no further modifications.

Non-verbal idioms are represented in the tree according to the rules specified above - Section 6.8, "Idioms (phrasemes)". The only problematic issue can be deciding which part of the idiom is the governing part.

The governing part of a non-verbal idiom. In case the governing part cannot be determined on the basis of syntax, the governing part is the first part of the non-verbal idiom (in the surface word order).

## Examples:

Zavřeli mě pro nic.CAUS za nic.DPHR (=lit. (They) arrested me for nothing for nothing; meaning: they did not have a reason to arrest me) Fig. 6.124

Chtě.CNCS nechtě.DPHR museli jsme kufr otevřit. (=Willy nilly, we had to open the suitcase.) Fig. 6.125

Široko.LOC daleko.DPHR nebylo vidět žádnou policii. (=Far and wide, one could see no police.) Fig. 6.126

Hledá investici šitou.COMPL na míru.DPHR (=He is looking for the right investment ; lit. investment sewn to measure) Fig. 6.127
konec konců.DPHR (=after all; lit. end (of) ends)
zuby nehty.DPHR (=tooth and nail)
chyba lávky.DPHR (=certainly not)
jádro pudla.DPHR (=the heart of the matter; lit. core (of) poodle)
stuij co stůj.DPHR (=at any cost; lit. cost what cost)
pozdě bycha honit.DPHR (=it is no good crying over spilt milk)
!!! Non-verbal idioms are assigned special valency frames in the valency lexicon (see Section 6.2.2.2, "Valency frames of idiomatic expressions (phrasemes) and complex predicates"); nevertheless not every instance of a non-verbal idiom has a corresponding valency frame. So far only those non-verbal idioms have a valency frame (for all their occurences) that contain a semantic noun ending with -ni or $-t i ́$ in their governing part.
!!! All non-verbal idioms that occured in PDT are listed in the appendix (see Appendix 4, Non-verbal idiomatic expressions).
!!! We do not represent as idioms those non-verbal collocations that have regular inflection, e.g.: horký.RSTR brambor (=a thorny problem; lit. hot potato).

## Figure 6.124. Non-verbal idiom



Zavřeli mě pro nic za nic. (=lit. (They) arrested me for nothing for nothing)

Figure 6.125. Non-verbal idiom


Chtě nechtě museli jsme kufr otevřit. (=lit. Willy nilly (we) had_to AUX (the) suitcase open)

Figure 6.126. Non-verbal idiom


Široko daleko nebylo vidět žádnou policii. (=lit. Wide far not_was to_see no police)

Figure 6.127. Non-verbal idiom


Hledá investici šitou na míru. (=lit. (He) is_looking_for investment sewn to measure)

### 6.8.2. Verbal idioms

By the term verbal idiom we mean an idiom, the governing part of which is a verb (usually a definite verb form), which can occur in the idiom in its whole paradigm.

Verbal idioms are a special type of multi-word predicates (see Section 6.9, "Multi-word predicates").
Verbal idioms are represented in the tectogrammatical tree according to the rules specified above Section 6.8, "Idioms (phrasemes)". The governing part of a verbal idiom is always formed by a verb.

Examples:
Dával.PRED mi neustále najevo.DPHR svou převahu. (=He has been always showing me his superiority)
Fig. 6.128
Házeli.PRED nám klacky pod nohy.DPHR (=They were putting obstacles in our way) Fig. 6.129
Běhal. PRED mu mráz po zádech.DPHR (=It was giving him the creeps)
Šel.PRED mu přikladem.DPHR (=He was an example to him)
Vše běží.PRED jako na drátkách.DPHR (=Everything is running smoothly)
The governing verb of an idiom can also require a modification which is not part of the idiomatic meaning. The node representing this modification is assigned an argument functor then.

Verbal idioms (that occurred in PDT) are captured in the valency lexicon by special valency frames. The exact requirements concerning the form of the dependent parts of an idiom are also specified in the valency frame (for details see Section 6.2.2.2, "Valency frames of idiomatic expressions (phrasemes) and complex predicates").

Valency of the dependent part of an idiom. Nodes with the functor DPHR usually have no further modifications depending on them. All modifications are usually part of the idiom, and therefore are represented by a single node with the functor DPHR. Exceptionally, there can be non-valency modifications that are not part of the idiom, depending on the node with the functor DPHR. This concerns especially nodes representing restrictive attributes (the functors RSTR or APP) that can have different lexical content in different instances of the given idiom. The valency frame of the given idiomatic meaning of the verb contains the information which part of the idiom can be modified in this way. Compare:

- mít něco v trvalém užívání (=to have the permanent use of sth)

The adjective trvalý (=permanent) in the expression mít něco v trvalém užívání is not part of the idiom (it can be omitted, replaced with adjective dlouhodobý, krátký (=long-term, short) etc.), therefore the adjective trvaly' is represented as a node with the functor RSTR dependent on the node with the functor DPHR. Compare Fig. 6.131.

The valency frame for the verbal idiom mít v (nějakém) uživání (=to have the use of):
ACT(.1) DPHR(v-1[užívání.6]) PAT(.4). (v-1[stopa.P6[:u\#]])

- brát něco na lehkou váhu (=to take sth lightly; lit. to_take sth on light weight)

The adjective lehký (=light) in the expression brát něco na lehkou váhu is part of the idiom and therefore the node for the dependent part of the idiom (with the functor DPHR) has the t-lemma na_lehkou_váhu. Compare Fig. 6.130.

The valency frame for the verbal idiom brát na lehkou váhu (=to take sth lightly):
ACT(.1) DPHR(na-1[váha:4[lehký:\#]]) PAT(.4;že[.v];.c).
The words that are part of the dependent part of the idiom usually have specific valency behaviour: a word that has - in its unmarked use - valency requirements either loses its valency properties in the idiom, or its modifications are considered dependent on the governing verb. Therefore the node with the functor DPHR is never assigned a valency frame. Compare:

- Svatba je na spadnutí.DPHR (=The wedding could any time now)

The verbal noun spadnutí (=falling) completely loses its valency in the idiom svatba je na spadnutí.

- Mám vplánu. DPHR odejit. (=I am planning ot leave)

In the expression mám v plánu odejít we do not consider the infinitive odejit (=to leave) as dependent on the noun plán (=plan) (which is assigned the functor DPHR here), but we represent it as dependent on the governing verb mit (=to have) with the functor PAT. Compare Fig. 6.132.

The valency frame of the verbal idiom mit v plánu:
ACT(.1) DPHR(v-1[plán:S6]) PAT(.4;.f;že[.v]).
Borderline cases with verbal idioms. For details on borderline cases with verbal idioms see Section 6.9.4, "Borderline cases with multi-word predicates".

Figure 6.128. Verbal idiom


Dával mi neustále najevo svou převahu. (=lit. (He) was_giving me all_the_time clear his superiority)
Figure 6.129. Verbal idiom


Házeli nám klacky pod nohy. (=lit. (They) were_throwing us sticks under feet)

Figure 6.130. Verbal idiom


Neber studium na lehkou váhu. (=lit. Don't_take (your) study on light weight)
Figure 6.131. Verbal idiom


Ten byt má v trvalém užívání. (=lit. The flat (she) has in permanent use)

Figure 6.132. Verbal idiom


Mám v plánu odjet domů. (=lit. (I) have in plan to_go home)

### 6.9. Multi-word predicates

A multi-word predicate is defined as a case where the predicate as a lexical unit is represented at the surface level of the sentence not only by a finite verb form but where the predicate additionally incorporates, besides the meaning of the finite verb form, the meaning of further words - infinitive verb, noun, adverb (see also the general definition of multi-word lexical units: Section 4.3, "T-lemmas of multi-word (complex) lexical units").

Multi-word predicates comprise:

- verbal idioms.

Examples: vzít nohy na ramena (=to leg it), mít zelenou (=to get a green light).
Verbal idioms are described together with non-verbal idioms in Section 6.8, "Idioms (phrasemes)".

- verbonominal predicates (with the verb "být (=to be)").

Examples: být veselý (=to be cheerful), být vítězem (=to be victorious).
All constructions with the verb "být (=to be)" are fully described in Section 8.2, "Constructions with the verb "být" (=to_be)".

- modal and phase predicates (see Section 6.9.1, "Modal and phase predicates").

Examples: muset odejít (=to have to leave), začit pracovat (=to start working).

- quasi-modal and quasi-phase predicates (see Section 6.9.2, "Quasi-modal and quasi-phase predicates").

Examples: mit zájem studovat (=to be interested in studying), ztratit chut' studovat (=to lose the appetite for studying).

- complex predicates (see Section 6.9.3, "Complex predicates").

Examples: provést kontrolu (=to carry out a check), učinit rozhodnutí (=to make a decision).
On borderline cases of multi-word predicates see Section 6.9.4, "Borderline cases with multi-word predicates".

### 6.9.1. Modal and phase predicates

Modal (Section 6.9.1.1, "Modal predicates") and phase (Section 6.9.1.2, "Phase predicates") predicates are defined as expressions comprising a modal or phase verb combined with a substantive infinitive verb. The representation of these two types in the tectogrammatical tree differs.

### 6.9.1.1. Modal predicates

A modal predicate is defined as a multi-word predicate comprising a modal verb which (in addition to its grammatical meanings in the sentence) expresses the modal meaning of the predicate, and the infinitive of a substantive verb, carrying the main lexical meaning of the expression as a whole.

Modal predicates consist of:

- modal verb.

Modal verbs comprise:
dát se (=to be possible)
dovést (=to be capable)
hodlat ( $=$ to intend)
chtit (=to want)
mit (=to have)
moci (=to be able) / moct (=to be able)
muset (=to have (=to))
smět (=to be permitted)
umět (=to know how, to have the skill)

- substantive infinitive verb.

Basic method of annotation of modal predicates. A modal predicate is represented by a single node with the $t$-lemma of the substantive infinitive verb. Information on the modality of this predicate expressed by the modal verb is contained in the value of the deontic modality grammateme (deontmod; see Section 5.5.10, "The deontmod grammateme (deontic modality)").

Examples:
Petr $\leq$ chce $>$ přijít na koncert. [ deontmod=vol] (=Peter wants to come to the concert.) Fig. 6.133
Karel <musí> udělat zkoušky. [ deontmod=deb] (=Karel has to sit the exams.)
The following combinations are represented by the basic method (by copying the nodes) :

- (negated) modal verb + positive substantive infinitive verb.

Examples:
Karel $\leq$ může> ziskat knihu. [ deontmod=poss] (=Karel can obtain the book.)
Karel $\leq$ nemůže $>$ ziskat $k n i h u$. [deontmod=poss] (=Karel cannot obtain the book.)

- (negated) modal verb + coordination of positive substantive infinitive verbs.


## Examples:

Karel může ziskat a vrátit knihu. (=Karel can obtain the book and return it.)
Karel $\leq$ může> získat [deontmod=poss] a vrátit [deontmod=poss] knihu. (=Karel can obtain the book and return it.)

Karel nemůže získat a vrátit knihu. (=Karel cannot obtain the book and return it.)
Karel <nemůže> získat[deontmod=poss] a vrátit [deontmod=poss] knihu. (=Karel cannot obtain the book and return it.)

- a coordination of (negated) modal verbs + a positive substantive infinitive verb.

Examples:
Karel může a chce ziskat knihu. (=Karel can obtain the book and he wants to.)
Karel $\leq$ může $>$ \{ziskat\} [deontmod=poss] $a \leq$ chce $>$ ziskat [deontmod=vol] knihu. (=Karel can obtain the book and he wants to.)

Karel nemůže, ale chce ziskat knihu. (=Karel can't obtain the book, but he wants to.)
Karel $\leq$ nemůže $>$ \{ziskat $\}$ [deontmod=poss], ale $\leq$ chce $>$ ziskat [deontmod=vol] knihu. (=Karel cannot obtain the book, but he wants to.)

- a coordination of (negated) modal verbs + a coordination of positive substantive infinitive verbs.

Example:
Karel může a chce získat a vrátit knihu. (=Karel can obtain the book and return it and he wants to.)

Karel $\leq$ může $>$ \{ziskat\} [deontmod=poss] $a \leq$ chce> ziskat [deontmod=vol] a \{vrátit\} [deontmod=poss] a vrátit) [deontmod=vol] knihu. (=Karel can obtain the book and return it and he wants to.)

Karel nemůže, ale chce ziskat a vrátit knihu. (=Karel cannot obtain the book and return it, but he wants to)

Karel $\leq$ nemůže $>\{$ ziskat $\}$ [deontmod=poss], ale $\leq$ chce $>$ ziskat [deontmod=vol] a \{vrátit $\}$ [deontmod=poss], ale vrátit [deontmod=vol] knihu. (=Karel cannot obtain the book and return it, but he wants to)

Karel nemůže a nechce ziskat a vrátit knihu. (=Karel cannot obtain the book and return it, and he does not want to.)

Karel $\leq$ nemůže $>$ \{ziskat\} [deontmod=poss] $a \leq$ nechce $>$ získat [deontmod=vol] $a$ \{vrátit $\}$ [deontmod=poss] a vrátit) [deontmod=vol] knihu. (=Karel cannot obtain the book and return it, and he does not want to.)

Figure 6.133. Modal predicate


Petr chce přijít na koncert. (=lit. Peter wants to_come to (the) concert.)
Negation (see Section 6.9.1.1.1, "Negation of modal predicates") and co-ordination (see Section 6.9.1.1.2, "Parataxis with modal predicates") significantly complicate the representation of modal predicates. These complicated types are therefore described in more detail in the following sub-sections, with rules for the annotation of types which cannot be represented by the basic method of annotation. These are:

- all modal predicates with a negated substantive infinitive verb (see Section 6.9.1.1.1, "Negation of modal predicates"). That is, the combinations:
- (negated) modal verb + negated substantive infinitive verb.

Example:
Karel může neziskat knihu. (=Karel may not obtain the book.)
Karel nemůže neziskat knihu. (=Karel cannot fail to obtain the book.)
In this case the modal verb is always represented by a separate node (not by a grammateme).

- cases of layering of modal meanings in one modal predicate (see Section 6.9.1.1.3, "Layering of modal meanings"). That is, the combinations:
- Modal verb + modal verb + substantive infinitive verb.

Example:
Karel může <chtit> získat knihu. (=Karel may want to obtain the book.)
In this case the first modal verb is always represented by a separate node (not by a grammateme).

### 6.9.1.1.1. Negation of modal predicates

Naturally, the modal predicate can be negated. This negation can be realised either by the modal verb or by the substantive infinitive verb. The modal predicate can also be doubly negated: by negation of both of its parts.

Syntactic negation (expressed by the morpheme ne- in the case of a verb) is represented as a separate node with the t-lemma \#Neg and the functor RHEM. For detailed rules regarding the positioning of
this node in the tectogrammatical tree see Section 10.6.2, "Basic guidelines regarding the position of rhematizers in tectogrammatical trees".

The annotation of modal predicates is determined by the form of the substantive infinitive verb: whether it is positive or negative. In respect of negation we therefore divide modal predicates into two basic types of combination:

## - (negated) modal verb + positive substantive infinitive verb.

Examples:
Karel $\leq$ může> přijít $n a$ koncert. [ deontmod=poss] (=Karel can come to the concert.)
Karel $\leq$ nemůže> prijiit na koncert. [ deontmod=poss] (=Karel cannot come to the concert.) Fig. 6.134

Modal predicates with a positive form of the substantive infinitive verb are represented by the basic method (see Section 6.9.1.1, "Modal predicates").

The node representing syntactic negation of the modal verb is represented as a daughter node of the node representing the entire modal predicate.

- (negated) modal verb + negated substantive infinitive verb.


## Examples:

Karel může nepřijít na koncert. (=Karel may not come to the concert.) Fig. 6.135
Karel nemůže nepřijít na koncert. (=Karel cannot fail to come to the concert.) Fig. 6.136
In cases with a negative form of the substantive infinitive verb both the modal verb and the substantive infinitive verb are represented by separate nodes. In the grammateme deontmod the value decl is entered at both nodes. The node representing a substantive infinitive verb has the functor PAT and is dependent on the node representing the modal verb.

The node representing syntactic negation of the substantive verb is represented as a daughter node of the node representing the substantive infinitive verb. The node representing any syntactic negation of the modal verb is, as a rule, represented as a direct daughter node of the node representing the modal verb.

Figure 6.134. Negated modal predicate


Karel nemůže přijít na koncert. (=lit. Karel cannot come to (the) concert.)
Figure 6.135. Modal predicate with a negated substantive verb


Karel může nepřijít na koncert. (=lit. Karel may not_come to (the) concert.)

Figure 6.136. Modal predicate with a negated substantive verb


Karel nemůže nepřijít na koncert. (=lit. Karel cannot not_come to (the) concert.)

### 6.9.1.1.2. Parataxis with modal predicates

Complicated types of modal predicates occur in cases of co-ordination (occasionally apposition) of modal verbs or substantive infinitive verbs associated with modal verbs. Modal meaning is expressed only once for each of the co-ordinate substantive infinitive verbs at surface level, by a single occurrence of the modal verb. Similarly, substantive verbs are, as a rule, not repeated at surface level for each of the co-ordinate modal verbs.

All possible types, unless they involve negation of the substantive verb (see Section 6.9.1.1.1, "Negation of modal predicates"), are annotated by the basic method (see Section 6.9.1.1, "Modal predicates"). For positions where substantive verbs are unexpressed at surface level, new nodes are added in the tectogrammatical tree (by copying the nodes representing the verbs which are expressed).

The respective possible types (with no negated substantive infinitive verb) are therefore annotated as follows:

- a (negated) modal verb + a co-ordination of positive substantive infinitive verbs.

Examples:
Petr chce odpočivat a poslouchat hudbu. (=Peter wants to relax and listen to music.)
Petr $\leq$ chce $>$ odpočivat [deontmod=vol] a poslouchat [deontmod=vol] hudbu. (=Peter wants to relax and listen to music.) Fig. 6.137

Petr nechce přijít a zuistat. (=Peter does not want to come and stay.)
Petr $\leq$ nechce> přijít [deontmod=vol] a zůstat [deontmod=vol] (=Peter does not want to come and stay). Fig. 6.138

The combination of: a (negated) modal verb + a co-ordination of positive substantive infinitive verbs is interpreted as a co-ordination of two modal predicates with the same modal meaning (ex-
pressed only once at surface level, by a single occurrence of the modal verb). Each modal predicate is represented by a separate node with a t-lemma of the relevant substantive infinitive verb. In the grammateme deontmod the modality value corresponding to the expressed modal verb will be entered at each of these nodes (the attribute a/aux.rf contains a reference to the expressed modal verb embedded at both nodes). Cf. Fig. 6.137.

In the case of syntactic negation of a modal verb, the node representing syntactic negation is represented as a daughter node of both nodes representing the modal predicates (not as shared modifiers of these predicates; cf. Fig. 6.138).

- a co-ordination of (negated) modal verbs + a positive substantive infinitive verb.

Examples:
Karel může a chce ziskat knihu. (=Karel can obtain the book and he wants to.)
Karel $\leq$ může $>\{$ ziskat $\}$ [deontmod=poss] $a \leq$ chce $>$ ziskat [deontmod=vol] knihu. (=Karel can obtain the book and he wants to.)

Petr nemohl a nemůže přijít na koncert. (=Peter could not, and cannot, come to the concert.)
Karel $\leq$ nemohl $>\{$ prijijit $\}$ [deontmod=poss] $a \leq$ nemůže $>$ přijít [deontmod=poss] na koncert. (=Karel could not and cannot come to the concert.) Fig. 6.139

Najednou mohl i chtěl pokračovat. (=Suddenly he was able to continue, indeed he wanted to.)
Karel $\leq$ mohl $>$ \{pokračovat\} [deontmod=poss] $i \leq$ chtěl> pokračovat [deontmod=vol] (=Karel was able to continue; indeed he wanted to.)

The combination of: a co-ordination (of negated) modal verbs + a positive substantive infinitive verb is interpreted as a co-ordination of two modal predicates with different modal meanings or only with the various grammatical meanings of the substantive verb (which is expressed only once at surface level). Each modal predicate is represented by a separate node with the same t-lemma of the substantive infinitive verb. To represent one of the modal predicates, the node representing the expressed substantive verb is copied into the tectogrammatical tree. In the grammateme deontmod the modality value corresponding to the respective modal verb expressed will be entered at each of these nodes (in the attribute a/aux.rf a reference to one expressed modal verb is given for each node).

In the case of syntactic negation of a modal verb, the node representing the syntactic negation is represented as a daughter node of the node representing the modal predicate whose deontic modality value influences the negated modal verb.

- co-ordination (of negated) modal verbs + co-ordination of positive substantive infinitive verbs.

Examples:
Karel může a chce získat a vrátit knihu. (=Karel can obtain the book and return it, and he wants to.)

Karel $\leq$ mưže>\{ziskat\} [deontmod=poss] $a \leq$ chce> ziskat [deontmod=vol] a \{vrátit\} [deontmod=poss] a vrátit [deontmod=vol] knihu. (=Karel can obtain the book and return it, and he wants to.)

Takže to nemohli a nemohou potvrdit ani vyvrátit. (=So they could not and cannot confirm or deny it.)

Takže to $\leq$ nemohli $>$ \{potvrdit\} [deontmod=poss] $a \leq$ nemohou $>$ potvrdit [deontmod=poss] ani \{vyvrátit\} [deontmod=poss] a vyvrátit [deontmod=poss] (=So they could not and cannot confirm or deny it.) Fig. 6.140

The combination of: a co-ordination (of negated) modal verbs + a co-ordination of positive substantive infinitive verbs is interpreted as a co-ordination of co-ordinations (or as an apposition of co-ordinations and other variants) of two modal predicates with different modal or just grammatical meanings of the substantive verb (which is expressed only once at surface level). Thus in the sentence four modal predicates are interpreted. Each modal predicate is represented by a separate node with $\mathrm{a} t$-lemma of the relevant substantive infinitive verb. To represent one of a pair of modal predicates, the node representing the expressed substantive verb is copied into the tectogrammatical tree. In the grammateme deontmod, for each pair of nodes with the same t-lemma, the modality value will be entered that corresponds in each case to one expressed modal verb (the reference to one of the expressed modal verbs is embedded in the attribute a/aux. rf for two nodes in each case).

In the case of syntactic negation of a modal verb the node representing syntactic negation is represented as a daughter node of the node representing the modal predicate whose deontic modality value affects the negated modal verb. (The syntactic negation node is established for each modal predicate separately and is not represented as a shared modifier).

Figure 6.137. Parataxis with modal predicates


Petr chce odpočivat a poslouchat hudbu. (=lit. Peter wants to_relax and listen (to) music.)

Figure 6.138. Parataxis with modal predicates


Petr nechce přijít a zůstat. (=lit. Peter does_not_want to_come and stay.)
Figure 6.139. Parataxis with modal predicates


Petr nemohl a nemůže přijít na koncert (=lit. Peter could_not and cannot come to (the) concert.)

Figure 6.140. Parataxis with modal predicates


Takže to nemohli a nemohou potvrdit ani vyvrátit (=lit. So (they) it could_not and cannot confirm or deny.)

Co-ordination and a negated substantive infinitive verb. Occurrences of a negated substantive infinitive verb are annotated in a similar way, except that the modal predicate - the (negated) modal verb + the negated substantive infinitive verb - is always represented by two nodes: by a node representing the modal verb and a node representing the substantive infinitive verb (see Section 6.9.1.1.1, "Negation of modal predicates"):

- (negated) modal verb + co-ordination of substantive infinitive verbs, one (possibly all) of which is negated.

Cf:

- Petr má dovolenou, takže může odpočívat a nepracovat. (=Peter is on holiday, so he can relax and he does not have to work.)

This combination is interpreted as a co-ordination of two modal predicates with the same modal meaning expressed only once at surface level, by one occurrence of the modal verb. The modal predicate může odpočivat (=can relax) is represented by a separate node with a t-lemma of the relevant substantive infinitive verb (odpočívat (=to relax)). In the grammateme deontmod the modality value corresponding to the expressed modal verb will be entered at this node (deontmod=poss). The modal predicate může nepracovat (=does not have to work; lit. is able not to work) is represented by two separate nodes: by a node representing the modal verb (moci (=to be able)) and a node representing the substantive infinitive verb (pracovat (=to work)). In the attribute deontmod the value decl will be added for both nodes. The node representing syntactic negation of the infinitive nepracovat ( $=$ to not work) will be represented as a daughter node of the node representing this infinitive. Cf. Fig. 6.141.

- a co-ordination of (negated) modal verbs + negative substantive infinitive verb.

Cf:

- Petr mohl a může nepřijít na koncert. (=Peter might not have come to the concert and he may not come).

This combination is interpreted as a co-ordination of two modal predicates with different modal or just grammatical meanings of the substantive verb (which is expressed only once at surface level). Each modal predicate (=mohl nepřijít (=might not have come) and může nepřijít (=may not come)) is represented by two separate nodes: by nodes representing the expressed modal verb (moci (=to be able) and moci (=to be able)) and by nodes representing the substantive verbs which will have the same t-lemma of the expressed substantive infinitive verb (přijít (=to come) and prijijt (=to come)). To represent one of the modal predicates, the node representing the expressed substantive verb is copied into the tectogrammatical tree. In the grammateme deontmod the value decl will be entered at each of the nodes. The nodes representing syntactic negation of the infinitives nepřijít (=to not come) are represented as daughter nodes of the nodes representing these infinitives. Cf. Fig. 6.142.

- a co-ordination of (negated) modal verbs + a co-ordination of substantive infinitive verbs, one of which (possibly all of which) is negated.

Cf:

- Karel může a chce získat a nevrátit knihu. (=Karel can obtain the book and not return it, and this is what he wants.)

This combination is interpreted as a co-ordination of co-ordinations (possibly as apposition of co-ordinations and other variants) of two modal predicates with the various modal or only grammatical meanings of the substantive verb (which is expressed only once at surface level). Thus the four modal predicates (může ziskat (=can obtain), chce ziskat (=wants to obtain), může nevrátit (=may not return) and chce nevrátit (=wants to keep; lit. wants to not return)) are interpreted in the sentence.

Modal predicates with a positive substantive infinitive verb are represented by a signle node with the $t$-lemma of the appropriate substantive infinitive verb. In the grammateme deontmod at each node the modality value will be entered that corresponds in each case to one expressed modal verb.

Modal predicates with a negative substantive infinitive verb are represented by two separate nodes: by nodes representing modal verbs and nodes representing infinitives of substantive verbs. To represent one of a pair of modal predicates, the node representing the expressed substantive verb is always copied into the tectogrammatical tree. In the grammateme deontmod at each node the value decl is entered.

Nodes representing syntactic negation of the infinitives nevrátit (=not to return) are represented as daughter nodes of the nodes representing these infinitives.

Cf. Fig. 6.143.

Figure 6.141. Parataxis with modal predicates with a negated substantive verb


Petr má dovolenou, takže může odpočivat a nepracovat. (=lit. Peter has holiday, so (he) can relax and not_work.)

Figure 6.142. Parataxis with modal predicates with a negated substantive verb


Petr mohl a může nepřijít na koncert. (=lit. Peter could and can not_come to (the) concert.)

Figure 6.143. Parataxis with modal predicates with a negated substantive verb


Karel může a chce ziskat a nevrátit knihu. (=lit. Karel can and wants to_obtain and not_return (the) book.)

On similar rules regarding the positioning of the syntactic negation node in the tectogrammatical tree see Section 10.6.2, "Basic guidelines regarding the position of rhematizers in tectogrammatical trees".

### 6.9.1.1.3. Layering of modal meanings

Modal meanings can be also layered in modal predicates. The combination:

- modal verb + modal verb + substantive infinitive verb occurs.


## Examples:

Karel může chtit ziskat knihu. (=Karel may wish to obtain the book.)

The first modal verb in the sequence is always represented by a separate node with the $t$-lemma of (the infinitive of) that modal verb. In the deontic modality grammateme the value decl is entered at that node (the modal meaning of the first modal verb is not represented by a grammateme, but by its lexical meaning).

The second modal verb in the sequence and the substantive infinitive verb are represented (unless the substantive infinitive verb is negated) by a single node with the t-lemma of the substantive infinitive verb. The deontic modality grammateme contains a representation of the modal meaning carried by this second modal verb. The node representing the second modal verb in the sequence and the substantive infinitive verb has the functor PAT and is represented as a direct daughter node of the node representing the first modal verb.

Examples:

Petr $\underline{\text { může }}$ [deontmod=decl] $\leq$ chtit $>$ přijít. PAT [deontmod=vol] na koncert. (=Peter may want to come to the concert.) Fig. 6.144

Petr musí [deontmod=decl] <umět $>$ kreslit.PAT [deontmod=fac] (=Peter must be able to draw)

Petr $\underline{\text { mưže }}$ [deontmod=decl] $\leq$ nechtit $>$ prijiít. PAT [deontmod=vol] na koncert. (=Peter may not want to come to the concert) Fig. 6.145

Petr nemůže [deontmod=decl] <nechtit> přijít .PAT [deontmod=vol] na koncert. (=Peter cannot not want to come to the concert) Fig. 6.146

Musim $[$ deontmod=decl] $\leq$ dovést $>$ začít.PAT [deontmod=fac] přestat.PAT kouřit.PAT (=I must be capable of starting to give up smoking)

The above method is not used to represent the type with a negated infinitive of a substantive verb:

- (negated) modal verb + (negated) modal verb + negated infinitive of a substantive verb.

Examples:
Petr může chtit nepřijít na koncert. (=Peter may want to miss the concert)
Petr nemůže chtít nepřijít na koncert. (=Peter cannot want to miss the concert.) Fig. 6.147
Petr může nechtít nepřijít na koncert. (=Peter may not want to miss the concert.)
Petr nemůže nechtit nepřijít na koncert. (=Peter must want to miss the concert.) Fig. 6.148

In cases with a negated substantive infinitive verb both modal verbs and also the substantive infinitive verb are represented by separate nodes. In the grammateme deontmod the value decl is entered for all three nodes. The node representing the second modal verb in a sequence has the functor PAT and is represented as a direct daughter node of the node representing the first modal verb. The node representing the substantive infinitive verb also has the functor PAT and is dependent on the node representing the second modal verb:

Petr nemůže chtit.PAT neprijilit.PAT na koncert. (=Peter cannot want to miss the concert) Fig. 6.147 Petrnemůže nechtít.PAT neprijít.PAT na koncert. (=Peter must want to miss the concert.) Fig. 6.148

Figure 6.144. Combinations of modal verbs


Petr může chtít přijít na koncert. (=lit. Peter may want to_come to (the) concert.)
Figure 6.145. Combinations of modal verbs


Petr může nechtít přijít na koncert. (=lit. Peter may not_want to_come to (the) concert.)

Figure 6.146. Combinations of modal verbs


Petr nemůže nechtit přijít na koncert (=lit. Peter cannot not_want to_come to (the) concert.)

Figure 6.147. Combinations of modal verbs


Petr nemůže chtít nepřijít na koncert. (=lit. Peter cannot want to_not_come to (the) concert.)

Figure 6.148. Combinations of modal verbs


Petr nemůže nechtít nepřijít na koncert. (=lit. Peter cannot not_want to not_come to (the) concert.).
For similar rules regarding the positioning of the syntactic negation node in the tectogrammmatical tree see Section 10.6.2, "Basic guidelines regarding the position of rhematizers in tectogrammatical trees".

### 6.9.1.1.4. Closer specification of modal meanings

Modal meaning can be further specified by direct modification of the modal verb (not of the substantive infinitive verb) by an adverbial expression. For example:

On vážně.ATT nemohl přijít. (=Seriously, he was unable to come.) Fig. 6.149

## Zoufale.ATT chtěl reagovat. (=He desperately wanted to react.)

The difference between a modification relating only to the modal verb and a modification relating to the entire modal predicate (Musí to udělat pečlivě. MANN (=He must do it carefully)) is represented by various functors: As a rule, the node representing a modification relating only to the modal verb has the functor ATT; as a rule, the node representing the modification relating to the entire modal predicate has the functor MANN. (We are aware, however, that in certain cases the difference cannot be represented in this way.) The node representing the modification relating to the modal verb only is (in cases where the modal predicate is represented by a single node) represented as a node dependent on the node for the entire modal predicate.

Figure 6.149. Modification of a modal verb


On vážně nemohl přijít. (=lit. He seriously was_unable to_come.)

### 6.9.1.1.5. Ellipsis in modal predicates (borderline cases of modal predicates)

In Section 6.9.1.1.2, "Parataxis with modal predicates" ellipses in modal predicates caused by paratactic connections were described. However, ellipsis (ellipsis of the substantive infinitive verb) in modal predicates may also be interpreted outside paratactic constructions.

Ellipsis of the substantive infinitive verb with the meaning of "motion" in modal predicates. PDT represents as elliptical (as far as modal constructions are concerned) only cases where a substantive infinitive verb signifying motion is omitted in modal predicates such as:

Kdo se bojí, <nesmi> \{jit\} do lesa. [ deontmod=deb] (=Those who are afraid should not go into the forest.)
$\leq$ Mưžu $>\{$ \{iittjet $\}$ do kina? [ deontmod=poss] (=Can I go to the cinema?)
$\leq$ Musim $>$ \{jitt $/ j e t\}$ domí. [ deontmod=deb] (=I must go home.) Fig. 6.150
Chtěli jet na Slovensko, ale také <chtěli> \{jet\} do Prahy. [ deontmod=vol] (=They wanted to go to Slovakia, but they also wanted to go to Prague.) Fig. 6.151

These constructions are represented as modal constructions with ellipsis of the substantive verb (thus we do not consider the lexicalisation of this meaning). In place of the elided substantive infinitive verb, a new node is entered into the tectogrammatical tree, as a rule with the t-lemma \#EmpVerb, or the node representing the verb of "motion" is copied from the context.

NB! The node for the empty verb ( $t$ _lemma=\#EmpVerb) is a quasi-complex node (nodetype=qcomplex; see Section 3.8, "Quasi-complex nodes"), at which no grammatemes are entered (i.e. not even the deontmod) grammateme.

Figure 6.150. Modal predicate with ellipsis of the substantive verb of "motion"


Musim domů. (=lit. (I) must (go) home.)
Figure 6.151. Modal predicate with ellipsis of the substantive verb "of motion"


Chtěli jet na Slovensko a také chtěli do Prahy. (=lit. (They) wanted to go to Slovakia and also wanted to Prague.)

The following cases are not interpreted as ellipsis of the substantive infinitive verb in a modal predicate:

- modal verb + noun in the accusative

Example: chtit hračku (=to want a toy) ( Fig. 6.152).

- modal verb + dependent clause.

Example: chtit, aby přišli (=to want them to come).
In such cases the modal verbs are represented by separate nodes. The node representing a noun in the accusative or the effective root of a dependent clause is dependent on the node for the modal verb and it has the functor PAT (=cf. Fig. 6.152).

NB! Co-ordination can give rise to a combination of modal predicates represented by a single node with cases which are not represented as modal predicates. In such cases a similar approach is adopted, according to the rules in Section 6.9.1.1.2, "Parataxis with modal predicates". Cf.:

- Petr chtěl prosperovat, a aby se mu celkově dobře dařilo. (=Peter wanted to do well and to be successful in everything.)

In this construction we represent the co-ordination of the modal predicate chtit prosperovat $(=$ to want to do well) (represented by a single node with the t-lemma prosperovat (=to do well) and with the value vol in the grammateme deontmod) and the verb chtit (=to want) (represented by a newly established (copied) node with the t-lemma chtit (=to want)). The dependent clause aby se $m u$ dobře dařilo (=for him to be successful) is represented by a sub-tree having a root with the functor PAT (and t-lemma dařit_se (=to be successful)) dependent on the node for the verb chtit (=to want). Cf. Fig. 6.153.

Figure 6.152. Modal verb + noun in the accusative


Chci hračku. (=lit. (I) want (a) toy.)

Figure 6.153. Modal verb + dependent clause


Petr chtěl prosperovat, a aby se mu celkově dobře dařilo. (=lit. Peter wanted to_do_well and to REFL him in_general well was.)

### 6.9.1.2. Phase predicates

A phase predicate is defined as a multi-word predicate consisting of a phase verb which in the sentence, besides the grammatical meanings, expresses a phase of an event, and a substantive infinitive verb bearing the main lexical meaning of the expression as a whole.

In phase predicates we identify:

- a phase verb.

Phase verbs include: začít (=to begin), zahájit (=to initiate), přestat (=to cease), skončit (=to finish) etc.

## - a substantive infinitive verb.

No grammatemes have been established to represent a phase of an event. Phase predicates are therefore always represented by two nodes: a node representing a phase verb and a node representing a substantive infinitive verb. The substantive verb node has the functor PAT and is dependent on the phase verb node.

Example:
Začnu .PRED pracovat. PAT v pondělí. (=I will start work on Monday.) Fig. 6.154

Figure 6.154. Phase predicate


Začnu pracovat v pondělí. (=lit. (I) will_start to_work on Monday.)

### 6.9.2. Quasi-modal and quasi-phase predicates

Quasi-modal predicates and quasi-phase predicates are defined as combinations of a quasi-modal or quasi-phase verb (expressing the grammatical and modal or phase meanings) with a substantive infinitive verb carrying the main lexical meaning of the predicate.

Complex expressions synonymous with modal or phase verbs are represented as quasi-modal and quasi-phase verbs (see Section 6.9.2.1, "Quasi-modal and quasi-phase verbs").

Cf:

- modal predicate $\rightarrow$ quasi-modal predicate:
- muset odejít (=to have to leave) $\rightarrow$ mit povinnost odejit (=to have the obligation to leave),
- chtit pracovat (=to want to work) $\rightarrow$ mit záměr pracovat (=to have the intention of working),
- moci studovat (=to be able to study) $\rightarrow$ být schopen studovat (=to be capable of studying).
- phase predicate $\rightarrow$ quasi-phase predicate:
- začít pracovat (=to start working) $\rightarrow$ dostat chut' pracovat (=to get an appetite to work),
- přestat pracovat (=to stop working) $\rightarrow$ přijít o možnost pracovat (=to lose an opportunity to work).

A quasi-modal or quasi-phase predicate is formed by:

- a quasi-modal or quasi-phase verb,
- a substantive infinitive verb.

The substantive infinitive verb may also be nominalised and the main lexical meaning of the predicate is then expressed by a noun (frequently in the prepositional phrase). Cf:

- začit pracovat (=to start work) $\rightarrow$ dostat chut pracovat (=to get an appetite to work) $\rightarrow$ dostat chut' $k$ práci (=to get an appetite for work).

Consequently, quasi-modal and quasi-phase predicates are represented as three separate nodes. Quasimodal and quasi-phase verbs are represented, as a rule, as a complex predicate (by the functor CPHR; see Section 6.9.3, "Complex predicates").

The substantive infinitive verb (or its nominalisation) is usually a valency modification of the nonverbal part of the quasi-modal or quasi-phase verb, and so it is usually represented by a node dependent on the node with the functor CPHR and it has the functor of one of the arguments.

The fact that all the three components of the predicate belong together is not expressly reflected, nor is the infinitive assigned any deontic modality grammateme (see Section 5.5.10, "The deontmod grammateme (deontic modality)").

Examples:
Má povinnost. CPHR odejít. (=He has an obligation to leave.) Fig. 6.155
Dostal chut'.CPHR pracovat. (=He got an appetite to work) Fig. 6.156
Figure 6.155. Quasi-modal predicate


Má povinnost odejít. (=lit. (He) has (an) obligation to_leave.)

Figure 6.156. Quasi-phase predicate


Dostal chut' pracovat na projektu. (=lit. (He) got (an) appetite to_work on (the) project.)

### 6.9.2.1. Quasi-modal and quasi-phase verbs

Quasi-modal verbs are multi-word expressions synonymous with modal verbs, employing a semantically empty verb to express in particular the grammatical meanings of the clause, and a noun (or an adverb) to carry the modal meaning of the phrase.

Cf:

- modal verb $\rightarrow$ quasi-modal verb:
- moci (=to be able) $\rightarrow$ mít možnost (=to have the opportunity),
- chtit (=to want) $\rightarrow$ mit chut' (=to have an appetite).

With quasi-modal verbs it is possible to add to the meaning of modality ("adding a layer") the further meaning of phasality. Such complex verbal-nominal (or verbal-adverbial) collocations are then represented as quasi-phase verbs. What is important is that verbs forming the verbal component of quasiphase verbs acquire phasal meaning only in a verbal-nominal collocation. This newly acquired phasal meaning is distinguished from their original, "non-empty" meaning.

Quasi-modal verbs may be considered as quasi-phase verbs with the phase of progress of the event. Cf. examples of quasi-phase verbs indicating two further phases: start and end of an event:

- quasi-modal/quasi-phase verb for the phase of progress $\rightarrow$ quasi-phase verb for the start or end phase of an event:
- mit možnost (=to have the opportunity) $\rightarrow$ přijít o možnost (=to lose the opportunity),
- mit chut' (=to have an appetite) $\rightarrow$ dostat chut' (=to get the appetite) .

The linking of modal and phase meaning makes it difficult to find an adequate one-word synonymous term for quasi-phase verbs.

A quasi-modal or quasi-phase verb is formed by:

## - verbal component.

The verbal component is defined as the governing verb, which is semantically empty.

- non-verbal component.

The non-verbal component is defined as the dependent noun or adverb carrying the modal or phase meaning of the phrase.

According to the means of expression of the verbal and non-verbal components, three groups of quasimodal and quasi-phase verbs are identified, distinguished in the annotation rather due to the fact that the annotation rules developed gradually than to satisfy a need to distinguish these groups. These are:
a. a quasi-modal or quasi-phase verb whose verbal component is not formed by the verb "být (=to be)" and whose non-verbal component is formed by a noun.

## Examples:

mít schopnost (=to have the ability)
mit chut' (=to have an appetite)
mit potřebu (=to have a need)
mít šanci (=to have a chance)
mit plán (=to have a plan)
mit tendenci (=to have a tendency)
dát se do práce (=to get down to work)
dostat chut' (=to get an appetite)
dostat nápad (=to get an idea)
nabizi se možnost (=an opportunity presents itself)
pocítit potřebu (=to feel a need)
pojmout podezření (=to become suspicious)
sbirat odvahu (=to summon up courage)
vzbudit touhu (=to arouse a desire)
nenáleži (mu) právo (=(he) does not have the right)
nepřisluší (mu) oprávnění (=(he) has no justification)
pozbýt odvahu (=to lose courage)
přijít o možnost (=to lose the opportunity)

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zaniká povinnost (=the obligation expires)
ztratit chut' (=to lose the appetite)
ztratit možnost (=to lose the opportunity)
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This group of quasi-modal and quasi-phase verbs is represented by applying the same rules as for complex predicates (the group is defined as a sub-type of complex predicates): the nonverbal component (a noun) is represented by a node with the functor CPHR (on annotation rules for complex predicates see Section 6.9.3, "Complex predicates").
b. a quasi-modal or quasi-phase verb whose verbal component is formed by the verb "být (=to be)" and whose non-verbal component is formed by a modal adjective or noun.

Examples:
být schopen (=to be capable)
být povinen (=to be obliged)
být nutné (=to be necessary)
být možné (=to be possible)
být povinností (=to be an obligation)
být nutnost (=to be a necessity)
This group of quasi-modal (or quasi-phase) verbs is represented by applying the same rules as for verbonominal predicates. The non-verbal component (a noun or an adjective) is represented by a node with the functor PAT (on annotation rules for verbonominal predicates see Section 8.2.1.3, "Copula "být" (verbonominal predicate)").
c. a quasi-modal or quasi-phase verb whose verbal component is formed by the verb "být (=to be)" and whose non-verbal component is formed by a predicative modal adverb.

Examples:
být možno (=to be possible)
být nutno (=to be necessary)
být třeba (=to be necessary)
For the annotation of this group of quasi-modal (or quasi-phase) verbs the previously introduced functor CPHR has been used and for predicates formed by these quasi-modal verbs specific valency frames have been established - see Section 8.2.1.3, "Copula "být" (verbonominal predicate)".

Quasi-modal and quasi-phase verbs are frequently complex control predicates (see Section 9.2.4, "Control"; for group a) see also Section 9.2.4.4.1, "Infinitive dependent on the nominal part of a complex control predicate"; for group b) see also Section 9.2.4.4.4, "Infinitive dependent on the verbal part of a verbonominal control predicate" ; for group c) see also Section 9.2.4.4.4.6, ""Být" + predicative adverb").

### 6.9.3. Complex predicates

A complex predicate is a multi-word predicate (see Section 6.9, "Multi-word predicates") consisting of a semantically empty verb which expresses the grammatical meanings in a sentence, and a noun (frequently denoting an event or a state of affairs) which carries the main lexical meaning of the entire phrase.

A complex predicate forms a single complex lexical unit for which an appropriate synonymous expression can usually be found in the form of a one-word predicate. Cf.:

- one-word predicate $\rightarrow$ complex predicate:
- hovořit (=to talk) $\rightarrow$ vést rozhovor (=to carry on a conversation),
- plánovat $(=$ to plan) $\rightarrow$ mit plán (=to have a plan),
- ohližet se (na nékoho) (=to be considerate (towards somebody)) $\rightarrow$ brát ohledy (na nékoho) (=to be considerate (towards somebody)),
- nárokovat si (=to claim) $\rightarrow$ činit si nárok (=to make a claim),
- připravovat se (=to prepare (oneself)) $\rightarrow$ dělat přípravy (=to make preparations),
- připravovat se (=to prepare (oneself)) $\rightarrow$ konat přípravy (=to undertake preparations),
- dokázat (=to prove) $\rightarrow$ podat důkaz (=to offer proof),
- hlásit (=to announce) $\rightarrow$ podávat hlášení (=to make an announcement),
- snažit se (=to try) $\rightarrow$ projevit snahu (=to show willing),
- zajímat se (=to be interested) $\rightarrow$ projevit zájem (=to show interest),
- omezit (=to limit) $\rightarrow$ provést omezení (=to impose a limitation),
- zkontrolovat (=to check) $\rightarrow$ provést kontrolu (=to carry out a check),
- doufat v+4 (=to hope for) $\rightarrow$ skládat naděje v+4 (=to place one's hope in),
- rozhodnout (se) (=to decide) $\rightarrow$ učinit rozhodnutí (=to make a decision),
- přikázat (=to command) $\rightarrow$ vydat přikaz (=to issue a command).

The existence of an adequate synonymous expression involving a single-word predicate is not however a condition for considering a certain collocation of a semantically empty verb with a meaning-bearing noun to be a complex predicate.

In individual complex predicates we identify

- the verbal component of the complex predicate.

The verbal component of a complex predicate is defined as the governing, semantically empty, verb.

- the nominal component of the complex predicate.

The nominal component of a complex predicate is defined as a dependent noun carrying the main lexical meaning of the entire phrase.

The verbal component of a complex predicate may be nominalised, in which case there is a collocation of two nouns (for example: věnování pozornosti ( = paying attention); pozornost věnovaná dětem ( $=$ the attention paid to children)).
!!! Nominalisations of complex predicates are not represented in PDT (in the data their complexity is not signalled by a specific functor CPHR)
!!! In PDT it was necessary to represent in particular all complex predicates in constructions with control type 1 (see Section 9.2.4.4, "Type 1: Infinitive dependent on a verbal control predicate") and complex predicates whose nominal component has some valency modification of its own, the syntactic
status of which may result in non-projectivity of the construction (see Section 10.3.4, "Projectivity of tectogrammatical trees"). The list of complex predicates has therefore been strictly limited by these considerations. We are aware that the resulting annotation certainly does not represent all multi-word predicates which could be considered as complex predicates. It is probable that in PDT further potential complex predicates occur which have so far not been represented as complex predicates.

The sub-type of quasi-modal and quasi-phase verbs. The basis of complex predicates is multi-word predicates whose meaning does not contain a modal or phase meaning (cf. examples above). Quasimodal and quasi-phase verbs whose verbal component is formed by a verb other than the verb "být (=to be)" and whose non-verbal component is formed by a noun are also defined and represented as a sub-type of complex predicates (for example: mit schopnost (=to have the ability), dostat chut' (=to get an appetite); see Section 6.9.2.1, "Quasi-modal and quasi-phase verbs"). For the basic type of complex predicates and for the sub-type of quasi-modal and quasi-phase verbs the same annotation rules described in this section apply, so the two types are not further distinguished in the text.

### 6.9.3.1. Properties of verbal and nominal components of complex predicates

### 6.9.3.1.1. Properties of the verbal component of complex predicates

From a semantic standpoint the following properties are characteristic of the verbal component of complex predicates:

- the verbal component of a complex predicate represents the semantically empty use of a verb which has a meaning of its own when not used in the complex predicate (i.e. in its unmarked function); cf.:
- dostat knihu (=to get a book)
$=$ unmarked function of the verb dostat (=to get.)
- to get an order
$=$ complex predicate dostat rozkaz (=to get an order)
- the meaning of the entire complex predicate is determined by the meaning of the nominal component of the complex predicate, not primarily by the meaning of the verb, and the verbal component of the complex predicate in the sentence expresses mainly the grammatical meanings.
- individual verbs contained in the verbal component of the multi-word predicate are linked to each other by the verbal aspect (dostat (=to get), dostávat (=to get)) and by their synonymy (dostat (=to get), ziskat (=to acquire)); with quasi-phase verbs (see Section 6.9.2.1, "Quasi-modal and quasiphase verbs") it is the individual phases of the event that constitutes the link (dostat (=to get), mit (=to have), ztratit (=to lose)).


### 6.9.3.1.2. Properties of the nominal component of complex predicates

The following properties are characteristic of the nominal component of complex predicates:

- the nominal component of a complex predicate is represented in a majority of cases by deverbal nouns, but they may also be non-deverbal nouns; cf.:
- učinit rozhodnutí, přiznání, pokus, omezení, opatření, kontrolu (=to make a decision, admission, attempt, limitation, precaution, check);
- mít možnost, povinnost, schopnost, zodpovědnost, právo, šanci, přiležitost (=to have the opportunity, obligation, ability, responsibility, right, chance, opportunity).
- the nominal component consists in the majority of cases of an abstract noun; cases with concrete nouns are as a rule classified as unmarked, semantically non-empty uses of the verb; cf.:
- mit auto.PAT (=to have a car),
- mit možnost.CPHR (=to have an opportunity).

It is however necessary to consider whether the noun, which is primarily abstract, thus with the potential to form a complex predicate, is an abstract or concrete noun in a given clause. Cf.:

- V nejbližši době se ale bude údajně bourat zděná garáž, která nemá stavební povolení.PAT (=But in the very near future, apparently, the brick-built garage, which does not have planning permission, will be demolished.)

Mít povoleni (=to have permission) in the meaning of "dovolit (=to allow)" is a complex predicate, but in this case the meaning is different; the sentence does not mean that "the garage would not be allowed to be built", but rather that "no document exists to justify its existence".

- Nájemce může podle svých požadavků dostat nabidku. CPHR i po telefonu, popřípadě navštívit kanceláŕr společnosti a nabidky.PAT dostane vytištěné. (=According to his requirements, the tenant can also get an offer over the telephone, or visit the company's office and get offers in printed form, as the case may be.)

Dostat nabidku (=to get an offer) in the meaning of "nabídnout (=to offer)" is a complex predicate, but in the second part of the sentence the collocation does not have this meaning; clearly, a physical document is involved.

- nouns forming components of complex predicates frequently belong to some semantic class; for example:
- emotional states: důvěra (=trust), dojem (=impression), rozčarováni (=disappointment), soustrast (=sympathy), nadšení (=delight);
- nouns forming components of complex predicates, as a rule, form synonym sets, less frequently also antonym sets; cf.:
- kontakt (=contact), spojení (=union), styk (=connection), vztah (=relationship);
- dohoda (=agreement), smlouva (=contract), kontrakt (=contract);
- pokyn (=order), přikaz (=instruction), rozkaz (=command);
- souhlas (=agreement), svolení (=consent);
- pokuta (=fine), sankce (=sanction), trest (=punishment);
- series of antonyms: milost (=reprieve) vs. trest (=punishment); souhlas (=agreement) vs. zákaz (=prohibition).
- the nominal component is usually the same for several different verbal components (linked to each other by the verbal aspect, relation of synonymy, and in the case of quasi-phase verbs by the fact they represent different phases of the event); cf.:
- dostat chut' (=to get an appetite),
- mit chut' (=to have an appetite),
- ztratit chut' (=to lose the appetite).
- the nominal component of a complex predicate can take the following forms:
- non-prepositional accusative (in the majority of cases):
- mit potizz (=to have difficulty).
- nominative:
- padlo rozhodnutí (=a decision was made).
- non-prepositional instrumental:
- hořet nenávistí (=to burn with hatred).
- non-prepositional genitive:
- pozbýt vtipnosti (=to lose wittiness).
- prepositional phrase:
- dát se do práce (=to get down to work);
- přijít o možnost (=to lose the opportunity).
!!! The combination of a verb with a noun in the dative (propadnout apatii (=to succumb to apathy), podlehnout zmatku (=to fall into disarray)) is not at present represented as a complex predicate.


### 6.9.3.2. Basic annotation rules for complex predicates

A complex predicate is represented in the tectogrammatical tree by two nodes: by a node representing the verbal component of the complex predicate and by a node representing the nominal component of the complex predicate.

The node representing the verbal component of the complex predicate is assigned a functor according to the function of the entire complex predicate in the sentence structure.

The node of the dependent nominal component is assigned a special functor CPHR (compound phraseme, abbreviated "component of the complex predicate"), which signals that it is not a modification of the governing verb but only a component of a multi-word predicate (see also Section 4.3.3, "Multi-word lexical units analysed as such by means of special functors"). The node is represented as a direct daughter node of the verbal component.

Example:

## Vyvolala u něho nadšení.CPHR (=She aroused his enthusiasm) Fig. 6.157

Nodes with the functor CPHR are not members of paratactic structures; they are always direct daughter nodes of the nodes for the verbal component. A complex predicate is treated as a single lexical unit, so only entire complex predicates can be co-ordinated on a tectogrammatical level.

On valency frames of complex predicates see Section 6.9.3.3, "Valency frames of complex predicates", on representation of the valency of complex predicates see Section 6.9.3.4, "Representation of the valency of complex predicates in the tectogrammatical tree".

Figure 6.157. Complex predicate


Vyvolala u něho nadšení. (=lit. (She) aroused at him enthusiasm.)
The nominal component of a complex predicate represented by a pronoun. The nominal component of a complex predicate can also be represented at surface level by a pronoun referring to the noun which forms the complex predicate with the given verb. In such a case the functor CPHR is also assigned to the co-referring pronoun. The co-reference relationship also transfers to the pronoun the valency behaviour of the word it refers to. At surface level the valency modification of these co-referred words may then also be expressed. Then, they are represented by nodes which have functors assigned according to the valency frame of the co-referred word and which are dependent on the node for the co-referring pronoun. Cf.:

- Nejvyšši kontrolní úřad zásadně odmítá obvinění z úniku informací, jež .CPHR (= obvinění) vyslovila na svém středečním zasedání vláda. (=The supreme controlling authority categorically refutes the accusation of an information leak which the government made at its Wednesday session.)

The pronoun jenž (=which) refers to the noun obvinění (=accusation); vyslovit obvinění (=to make an accusation) is a complex predicate, so the pronoun jenž ( $=$ which) is assigned the functor CPHR.

- Myslím si, že běžné rozhovory, které.CPHR (= rozhovory) novinář přikladně s politiky.ADDR dělá, by této dodatečné úpravě nemély podléhat. (=I think that the routine discussions, which the journalist is holding with the politicians in an exemplary manner, should not be subject to this additional amendment.)

The pronoun ktery (=which) refers to the noun rozhovor (=discussion) with the valency frame: $\operatorname{ACT}(.2 ;, \mathrm{u})$ ? $\operatorname{PAT}(\mathrm{o}+6) \operatorname{ADDR}(\mathrm{s}+7)$; dělat rozhovor ( $=$ to hold a discussion) is a complex predicate, so the pronoun ktery (=which) is assigned the functor CPHR. The expression s politiky (=with the politicians) expresses the Addressee of the noun rozhovor (=discussion), and in the tree structure it will be dependent on the pronoun ktery' (=which).

On pronouns representing words with valency see also Section 6.2.4.3.4, "Pronouns in place of words with valency".

Cases in which the collocation is not a complex predicate. Cases in which a potential nominal component of a complex predicate is a dependent modification of another noun dependent on the potential verbal component are not represented as complex predicates. Cf .:

- Trochu. PAT problémů.MAT jsme měli s přepisem. (=A few problems were experienced with the transcription.)

Mít problém (=to have a problem) is a complex predicate, but mit trochu problémů (=to have a few problems) is not represented as a complex predicate and the verb mit (=to have) is assigned a valency frame with a Patient.

- Uzavřeli tento typ. PAT smlouvy.APP (=They concluded this type of contract)

Uzavřit smlouvu (=to conclude a contract) is a complex predicate, but uzavřit typ smlouvy (=to conclude a type of contract) is not represented as a complex predicate and the verb uzavřit (=to conclude) is assigned a valency frame with a Patient.

- Ziskal jedno.PAT ze základnich práv.DIR1 (=He acquired one of the basic rights)

Ziskat právo (=to acquire a right) is a complex predicate, but ziskat jedno z práv (=to acquire one of the rights) is not represented as a complex predicate and the verb ziskat (=to acquire) is assigned a valency frame with a Patient.

### 6.9.3.3. Valency frames of complex predicates

Both the verbal component and the nominal component of the complex predicate can have their own valency. This section describes the specific problems involved in forming valency frames for verbs and nouns involved in complex predicates. The representation of this valency in the tectogrammatical tree is described in Section 6.9.3.4, "Representation of the valency of complex predicates in the tectogrammatical tree".

### 6.9.3.3.1. The valency frame of the verbal component of complex predicates

For the establishment of valency frames for the verbal component of a complex predicate two basic rules are applied:

- the nominal component of the complex predicate (with the functor CPHR) is recorded as a member of the valency frame, as its valency modification.

In view of the fact that nouns involved in complex predicates constitute, as a rule, synonym and antonym sets (see Section 6.9.3.1.2, "Properties of the nominal component of complex predicates"), all complex predicates consisting of a single verb (in the verbal component) and of individual synonyms (or antonyms) are recorded in abbreviated form in a single valency frame. In the surfaceform specification of the nominal component of the complex predicate, the set of synonymous (or antonymous) nouns is given first of all in curly brackets and only after this enumeration there follows the record of the forms. The list of lemmas is completed by a comma and three dots, to indicate that the set of permissible lemmas is incomplete, comprising only the representative examples of this class so far collected. The valency frames of complex predicates of the verb učinit (=to perform/do/make) take the following form, for example:

- $\operatorname{ACT}(.1) \operatorname{CPHR}(\{$ dojem,...\}.4) $\operatorname{ADDR}(\mathrm{na}+4)$ (=impression);
- $\operatorname{ACT}(.1) \operatorname{CPHR}(\{$ konec, prrítrž,...\}.4) $\operatorname{ADDR}(.3)$ (=end, stop);
- $\operatorname{ACT}(.1) \operatorname{CPHR}(\{$ závěr, shrnutí...\}.4) $\operatorname{ORIG}(\mathrm{z}+2)$ (=conclusion, summary);
- $\operatorname{ACT}(.1) \operatorname{CPHR}(\{$ ústupek, nabídka,...\}.4) ? $\operatorname{ADDR}(.3)$ (=concession, offer);
- $\operatorname{ACT}(.1) \operatorname{CPHR}(\{r o z h o d n u t i ́, ~ p r o h l a ́ s ̌ e n i ́, ~ p r o v e ̌ r k a, ~ e x p e r t i ́ z a, ~ k o n t r o l a, ~ o m e z e n i ́, ~ o z n a ́ m e n i ́, ~$ zátah, pokus, krok, opatření, pokrok,...\}.4) (=decision, announcement, verification, expert assessment, check, restriction, announcement, go, attempt, step, precaution, progress,...).
- in the valency frame of a complex predicate no argument shifting takes place.

Valency frames of complex predicates are the only case of valency frames where the principle of argument shifting (described in Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)") is not adhered to in the record. The valency frame of a verb involved in a complex predicate is always assessed against the background of the valency frame for the unmarked use of this verb. This frame is constituted according to the rules described in Section 6.2, "Valency", including the rules regarding the shifting. In the case of a complex predicate one valency position (Actor or Patient) of this valency frame for the unmarked use of the verb becomes its nominal component and in the valency frame of the complex predicate it is assigned the functor CPHR. A new implementation of the principle of shifting (actually, its doubling) would blur the relationships between equivalent valency positions in the two valency frames. Cf.:

- Vedoucí.ACT dal podřizenému .ADDR výplatu. $\operatorname{PAT}$ (=The manager gave his subordinate his wages.)

The valency frame for one of the meanings of the predicate dát (=to give):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{ADDR}(.3)$.

- Vedoucí.ACT dal)podřizenému .ADDR přikaz .CPHR přijít. (=The manager gave his subordinate the order to come.)

The valency frame of the complex predicate dát přikaz (=to give an order):
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{p o v e ̌ ̌ ̌ e n i ́, ~ p o d p o r a, ~ s o u h l a s, ~ z p r a ́ v a, ~ i m p u l s, ~ o d p o v e ̌ d ', ~ m o z ̌ n o s t, ~ p r ̌ i ́ k a z, ~ n a d e ̌ j e, ~$ popud, příčina, právo, příležitost, signál, šance,...\}.4) $\operatorname{ADDR}(.3)$. (=trust, support, agreement, message, impetus, reply, opportunity, order, hope, stimulus, cause, right, opportunity, signal, chance,...)

- Interpret. ACT se zmocnil skladby. PAT velmi bravurně. (=The performer mastered the piece brilliantly.)

The valency frame for one of the meanings of the predicate zmocnit se (=to master) :
АСТ(.1) PAT(.2).

- Zmocnil se ho.PAT strach.CPHR (=He was overcome by fear.)

The valency frame of the complex predicate strach se zmocnil (=fear took charge):

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\(\operatorname{CPHR}(\{\) strach, nenávist,...\}.1) PAT(.2). (=fear, hatred,...)
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Other valency positions are, in the majority of cases, transferred from the valency frame for the unmarked (semantically non-empty) use to the valency frame of the verbal component of the complex predicate without change. They may, however, undergo modification. From this point of view, further valency modification of the verbal component of complex predicates may be divided between:

- valency modification which also applies to the given verb in its unmarked use (see Section 6.9.3.3.1.1, "The valency frame of the verbal component of the complex predicate corresponds to the unmarked use of the verb");
- valency modification acquired by the given verb only when it becomes a part of the complex predicate (see Section 6.9.3.3.1.2, "Changes in the valency frame of the verbal component of a complex predicate as against unmarked usage of the verb").
- in some cases, on becoming part of a complex predicate, a verb may lose the valency typical for its unmarked use (see Section 6.9.3.3.1.2, "Changes in the valency frame of the verbal component of a complex predicate as against unmarked usage of the verb").
6.9.3.3.1.1. The valency frame of the verbal component of the complex predicate corresponds to the unmarked use of the verb

In the majority of cases it is the case that a verb which is a component of a complex predicate has the same number of valency modifications as the same verb in its unmarked (semantically non-empty) use.

The nominal component of a complex predicate occupies, as a rule, the position of Patient or Actor of the original unmarked use of the verb. Any further valency modifications are as a rule assigned the same functors as under primary semantically non-empty usage. Cf.:

- Poskytují jim potravu.PAT (=They provide them with meals.)

The valency frame of the predicate in its unmarked use poskytovat (=to provide):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{ADDR}(.3$, pro +4).

- Poskytují jim pomoc.CPHR (=They give them assistance.)

The valency frame of the complex predicate poskytovat pomoc (=to give assistance):
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{$ dotace, informace, příspěvek, léčení, péče, činnost, možnost, ochrana, podpora, pomoc, záruka, rada-1, služba, půjčka, sleva,... \}.4) ADDR(.3). (=subsidy, information, contribution, treatment, care, activity, opportunity, protection, support, assistance, guarantee, advice- 1, service, loan, reduction,...)

- Dostal jsem od otce dárek. PAT (=I got a gift from my father.)

The valency frame of the predicate in its unmarked use dostat (=to get):
AСT(.1) PAT(.4,.c) ?ORIG(od +2,z+2).

- Dostal jsem od otce souhlas.CPHR (=I got my father's consent.)

The valency frame of the complex predicate dostat souhlas (=to get the consent):
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{$ šance, výpověd’, odškodnění, prostor, doporučení, informace, impuls, možnost, nabídka,návrh, odpověd', povolení, pokuta, přednost, příležitost, příslib, přístup, rada, slib, souhlas, ujištění, rozkaz, úkol, zákaz, zpráva,... \}.4) ?ORIG(z +2,od +2). (=chance, notice, compensation, space, recommendation, information, impetus, opportunity, offer, proposal, reply, permission, fine, priority, opportunity, pledge, approach, advice, promise, agreement, assurance, order, task, prohibition, message,...)

A further (third) valency modification of the complex predicate. A further (third) valency modification of the verbal component of the complex predicate (in particular, the Addressee or the Origo) is generally expressed in the following forms (these forms apply especially to complex predicates whose nominal component is expressed by a noun in the accusative):

- dative.

For example: dát někomu možnost , poskytnout někomu př̌ležitost (=to give somebody an opportunity.).

- $o d+2$.

For example: dostat od někoho úkol (=to get a task from somebody), získat od někoho právo (=to get a right from somebody).

- $z+2$.

For example: nabýt z něčeho dojem (=to form an impression of something), udĕlat z něčeho závěr (=to derive a conclusion from something).

- $n a+4$.

For example: klást na nĕkoho nároky (=to make demands of somebody), obrátit na něco pozornost (=to pay attention to something), uvalit na někoho vazbu (=to impose imprisonment on somebody).

- $v+6$ or $u+2$.

For example: budit v někom nepříjemný pocit (=to arouse an unpleasant feeling in somebody), vzbuzovat u nékoho pochybnosti (=to arouse doubts in somebody).

A dative modification corresponds, as a rule, to the position of the Addressee ( $=A D D R$ ); the constructions $o d+2$ and $z+2$ usually express the Origo (ORIG). It may be noted that the complex predicates with valency modification in the form of a non-prepositional dative and with the construction od +2 are a typical example of complex predicates which make it possible to express changes in diathesis: in simplified terms it may be said that whereas complex predicates with a dative modification express active constructions, complex predicates with the construction $o d+2$ may be considered passive expressions of the same construction. Cf.:

- Otec dal synovi souhlas. (=The father gave his son his consent.)
- Syn dostal od otce souhlas. (=The son got his father's consent.)

Evidently, the construction $n a+4$ may express a number of semantic-syntactic functions. It is especially common with verbs which have in their unmarked usage an obligatory specification of direction (DIR3) (For example the verbs: klást (=to place), vrhnout (=to cast)). Another typical form of this specification of direction is the construction na +4 (For example: klást něco na stůl (=to place something on the table), klást na někoho těžký pytel (=to place a heavy burden on somebody)). If these verbs are involved in complex predicates, the expression of the specification of direction is no longer possible by means of an adverb (because "the target" of the event is usually animate) and there remains only the construction $n a+4$ (For example: klást na nékoho nároky (=to place demands on somebody)). In such cases, therefore, this valency modification of the verbal component of the complex predicate in the form $n a$ +4 is assigned the functor $A D D R$, instead of the original functor DIR3. Cf.:

- Klade knihu. PAT na stůl, do skřině vš̌ude. DIR3 (=He places the book on the table, in the cupboard, everywhere)

The valency frame, in the unmarked use of the predicate klást (=to place):
ACT(.1) PAT(.4) DIR3(*).

- Klade na firmu.ADDR vysoké nároky.CPHR (=He places great demands on the company)

The valency frame of the complex predicate klást nároky (=to place demands):
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{$ nárok, požadavek,...\}.4) $\operatorname{ADDR}($ na +4$) .(=$ demand, requirement,...)
In the case of verbs for which various forms of specification of direction are also possible within the framework of a complex predicate, the third valency modification retains the functor DIR3. Cf.:

- Dal květiny.PAT do vázy.DIR3 (=He put the flowers in the vase)

The valency frame, in the unmarked use of the predicate dát (=to put):
ACT(.1) PAT(.4) DIR3(*).

- Dal informaci.CPHR na úřad.DIR3, na odiv.DIR3, kdispozici. DIR3 (=He gave information to the office, for show, (placed it) at the disposal)

The valency frame of the complex predicate dát informaci (=to give information):
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{d u ̊ k a z$, informace, návrh, oznámení, podnět, stižnost, zpráva, žádost, žaloba,...\}.4) DIR3(*). (=proof, information, proposal, announcement, stimulus, complaint, message, application, complaint,...)

The approach is similar for verbs that in their unmarked usage frequently exhibit a specification of place with the functor LOC; as a component of complex predicates they then require a valency modification, particularly in the form $v+6$ or $u+2$. Evidently, however, an adverbial form may also occur, and so also in the valency frame of the complex predicate the functor LOC is retained for the third valency modification. Cf.:

- Probudili v něm.LOC skutečného vůdce.PAT (=They awoke in him a true leader)

The valency frame for the unmarked usage of the predicate probudit (=to awake):
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) \mathrm{LOC}(*)$.

- Probudili v nich.LOC zájem.CPHR o studium. (=They aroused in them interest in studying.)

The valency frame of the complex predicate probudit zájem (=to arouse interest):
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{d o j e m$, nostalgie, pocit, pohoršení, povaha, touha, zájem,... \}.4) LOC(*). (=impression, nostalgia, feeling, offence, character, desire, interest,...)

### 6.9.3.3.1.2. Changes in the valency frame of the verbal component of a complex predicate as against unmarked usage of the verb

The valency behaviour of a number of verbs changes when they are used as components of a complex predicate. With respect to their unmarked (semantically non-empty) use these verbs either acquire or lose certain valency modifications.

Acquisition of new valency modifications by contrast with the unmarked use of the verb. Certain verbs which are semantically empty as components of complex predicates may also acquire (apart from the obligatory valency for the nominal component with the functor CPHR, usually in the form of a non-prepositional accusative) certain further valency modifications, without there being any justification for this modification in the valency of the relevant verb in its unmarked usage.

These new modifications are explained by analogy with semantically similar predicates which have them. Frequently it is indeed a case of analogy with a corresponding synonymous simple predicate, but evidently it can sometimes be a case of analogy with the valency of another complex predicate.

New valency modifications are acquired, for example, as a component of complex predicates, by the verbs: dělat ( $=$ to do), udělat ( $=$ to do), činit ( $=$ to do), učinit ( $=$ to do), tvořit ( $=$ to create), vytvořit ( $=$ to create), položit (=to place), klást (=to place), vyjádř̌it (=to express). Cf.:

- Udělal tuto část diplomové práce.PAT (=He did this part of his dissertation)

The valency frame of the predicate udělat (=to do) in its unmarked usage:
ACT(.1) PAT(.4).

- Udělal na mě.ADDR dojem.CPHR (=He made an impression on me)

The valency frame of the complex predicate udělat dojem (=to make an impression):
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{d o j e m, \ldots\} .4) \operatorname{ADDR}($ na+4). (=impression,...)

The prepositional phrase $n a+4$ evidently came into being by analogy with the valency of the simple synonymous predicate působit na někoho dojmem (=to make an impression on somebody) or zapůsobit na někoho (=to have an effect on somebody).

- Udělal konec.CPHR všem nadějím.ADDR (=He put an end to all hopes)

The valency frame of the complex predicate udělat konec (=to put an end):
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{$ konec, přítrž,...\}.4) $\operatorname{ADDR}(.3)$ (=end, stop,...)
The dative modification evidently came into being by analogy with the valency of the simple synonymous predicate zabránit čeти (=to prevent something).

- Tato hodnota vyjadřuje spotřebu. PAT za rok. (=This value expresses consumption per annum.)

The valency frame of the unmarked usage of the predicate vyjádřit (=to express):
АСТ(.1) PAT(.4).

- Vyjádřil rodičům.ADDR úctu.CPHR (=He expressed respect for his parents)

The valency frame of the complex predicate vyjádřit úctu (=to express respect):
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{d i ́ k$, důvěra, soustrast, úcta, uznání, podpora, sympatie, preference,...\}.4) $\operatorname{ADDR}(.3)$. (=thanks, trust, sympathy, respect, recognition, support, sympathy, preference,...)

The dative modification evidently came into being by analogy with the valency of the verb projevit (=to demonstrate), which occurs in semantically similar complex predicates: projevit někomu úctu (=to show somebody respect) (also the valency of the predicates: vážit si koho / čeho (=to respect somebody / something), uctivat koho / co (=to adore somebody / something).

The loss of valency modifications by contrast with a verb in its unmarked usage. Some verbs may on the contrary lose the valency typical of their unmarked usage. Cf.:

- Podal kolegovi.ADDR šroubovák.PAT (=He handed his colleague a screwdriver)

The valency frame of a predicate podat (=to hand) in its unmarked usage:
$\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{ADDR}(.3)$.

- Podává špičkové výkony.CPHR (=He delivers top performances)

The valency frame of the complex predicate podat výkon (=to deliver a performance):
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{v y ́ k o n, . .\} .4).$. (=performance,...)
The valency modification with the functor $A D D R$ is missing here.

- Dostal od babičky.ORIG dárek.PAT (=He got a gift from his grandmother)

The valency frame of the predicate dostat (=to get) in its unmarked use:
AСT(.1) PAT(.4,.c) ?ORIG(od +2,z+2).

- Dostal nápad.CPHR odejít z vojny. (=He got the idea of leaving the army.)

The valency frame of the complex predicate dostat nápad (=to get the idea):
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{c h u t$, nápad,...\}.4). (=appetite, idea,...)
The valency modification with the functor ORIG is missing here.

Acquisition and loss of valency modifications in complex predicates on the basis of analogy with simple predicates is a further reason to treat the entire combinations of verbal and nominal components as a single (complex) predicate, even though certain other criteria may not be fully satisfied.

### 6.9.3.3.2. Valency frame of the nominal component of complex predicates

Both deverbal and non-deverbal nouns may have a valency in complex predicates. Nouns which have no valency are also found in complex predicates.

No special valency frame is assumed for a noun functioning as a component of a complex predicate. The nominal component carries the meaning of the complex predicate, the noun being included in the complex predicate with its "full" meaning (unlike the verb), and thus it also has an unimpoverished valency frame.

In the majority of cases it is therefore the rule that a noun which is a component of a complex predicate has the same number and the same forms of valency modifications as the same noun used independently with the same meaning, outside the complex predicate (on the valency of nouns in general, see Section 6.2.3.2, "Valency of nouns"). However, it is precisely due to its function as the nominal component of the complex predicate that a noun acquires a series of valency modifications, and possibly certain of their forms. This is because the valency of the verbal component of the complex predicate may affect the valency behaviour of the nominal component. The noun may then also exhibit these modifications and these new forms acquired under the influence of the valency effect of the verbal component when used outside the complex predicate. Explanations of certain valency modifications and atypical forms (particularly in non-deverbal nouns) are introduced in this section.
!!! For all nouns functioning as components of complex predicates (i.e. evaluated in the tectogrammatical tree by the functor CPHR ), a valency frame has been constituted in the valency lexicon. For nouns which are included in complex predicates, but have no valency, the valency frame EMPTY has been constituted in the valency lexicon (see also Section 6.2.2.4, "Valency lexicon").

### 6.9.3.3.2.1. The Actor of the nominal component of complex predicates

The presence of an Actor as a valency modification may be controversial in the case of a number of nouns (particularly with non-deverbal nouns), above all because this modification is expressed at surface level only as an exception. It has been shown, however, that through its occurrence as the nominal component of the complex predicate, or in combination with a certain verb, a noun acquires a valency modification with the meaning of the functor ACT .

The fact that expressing the Actor of the nominal component of the complex predicate is redundant at surface level results from the identity of that Actor with the Actor of the verbal component. In certain cases the Actor cannot be expressed at all with the nominal component. However, there also exist cases of complex predicates in which it is possible to express the Actor in the nominal component, despite the fact that it is identical with the Actor of the verbal component, most frequently by means of the possessive pronoun svīj (=one's own). Cf.:

- Jan dostal strach.CPHR (=Jan took fright)

One cannot say: *Jan dostal Janův (=svůj) strach (=*John took John's (=his own) fright).

- Petr Karlovi znovu položil svoji.ACT otázku.CPHR (=Peter again put his question to Charles)

The possibility of expressing the Actor by the possessive pronoun sviuj (=one's own) can also be observed in complex predicates formed by a verb and a non-deverbal noun, despite the fact that in the case of these nouns one does not commonly speak of valency modification with the meaning of Actor. As a rule, reference books of syntax introduce only their own valency modifications, which we most frequently assign the functor PAT (for example: alternativa čeho / čemu / $k$ čemu.PAT (=alternative to what), varianta čeho.PAT (=variant of what), cesta k řešení.PAT (=the way to a solution), povinnost přijít.PAT včas (=the obligation to come on time), právo volit.PAT (=the right to vote)). Cf.:

- Petrovi to otevřelo (jeho.ACT) cestu.CPHR ke studiu. (=For Peter it opened his way to studying.)
- Petr má (svoji.ACT) zvláštní strategii.CPHR (=Peter has his own unusual strategy).
- Petr má (svoji.ACT) povinnost .CPHR přijít včas (=Peter has his obligation to turn up on time).
- Petr má (svoje.ACT) právo .CPHR volit. (=Peter has his right to vote.)

Modifications with the functor ACT are also seen in cases of non-deverbal nouns which have become independent of the verbal component of their complex predicate and occur in the text independently, externally to the complex predicate (this acquisition of independence by the noun may also be interpreted as a nominalisation of the relevant complex predicate). Cf .:

- Petrova.ACT strategie je opravdu zvláštní. (=Peter's strategy really is unusual.)

The valency frame for one of the meanings of the noun strategie (=strategy):
$\operatorname{ACT}(.2 ; \mathrm{u})$ ? $\operatorname{PAT}(.2, . \mathrm{u})$.

- Petrovou. ACT povinností je přijít včas. (=Peter's obligation is to turn up on time)

The valency frame for one of the meanings of the noun povinnost (=obligation):
$\operatorname{ACT}(.2 ; . \mathrm{u}) \operatorname{PAT}(.2, \mathrm{k}+3, . \mathrm{f}, \mathrm{aby}[. \mathrm{v}])$.

- Petrovo.ACT právo odvolat se mu nikdo nemůžé upřit. (=Nobody can deny Peter's right to appeal.)

The valency frame for one of the meanings of the noun právo (=right):
$\operatorname{ACT}(.2 ; . \mathrm{u}) \operatorname{PAT}(.2$, na +4 ,.f, aby [.v]).
The expression of the Actor in the nominal component of the complex predicate is then normally possible in the case of complex predicates where the Actor of the noun is not referentially identical with the Actor of the verb in the verbal component of the complex predicate. Cf.:

- Mluvčí.ACT chce obrátit vaši.ACT pozornost.CPHR na osudy oněch lidí. (=The spokesperson wants to draw your attention to the fate of those people.)

The valency frame for one of the meanings of the noun pozornost (=attention):
АСТ(.2;.u) ? РАТ(. $3 ; \mathrm{k}+3$ ).

- Vyvolalo to.АСТ odpor.CPHR vládnich představitelů.ACT (=It evoked the opposition of the government's representatives)

The valency frame for one of the meanings of the noun odpor (=opposition):
$\operatorname{ACT}(.2 ; \mathrm{u}) \operatorname{PAT}(\mathrm{k}+3$, proti +3$)$.
On the identity of the valency modifications of the verbal and nominal components of the complex predicate see Section 6.9.3.4.2, "Sharing of valency modifications between the verbal and nominal components (quasi-control)".

### 6.9.3.3.2.2. Valency modifications of the nominal component of the complex predicate (other than the Actor)

Valency modification of the nominal component of the complex predicate (other than the Actor; on the Actor see Section 6.9.3.3.2.1, "The Actor of the nominal component of complex predicates") may be expressed by a great variety of forms:

- non-prepositional case (particularly the genitive, but also the dative and instrumental).

For example: provést opravu.CPHR néčeho (=to carry out a repair on something), budit pocit.CPHR $\underline{\text { néčeho (=to arouse a feeling of something), vyjádřit pohrdání.CPHR něčím (=to express contempt }}$ for something), vydat pokyn.CPHR někomu (=to issue a command to somebody), dělat ústupky .CPHR někomu (=to make concessions to somebody).

- prepositional phrase.

For example: mit rozhovor.CPHR s nékým (=to have a conversation with somebody), vést debatu.CPHR o něčem (=to hold a debate about something), podat námitku.CPHR vůči někomu (=to make an objection to somebody), podniknout krok.CPHR k čemu (=to undertake a step towards something), vzbudit zájem.CPHR o néco ( $=$ to arouse interest in something), vynést soud.CPHR nad někým (=to pass sentence on somebody), vytvárét tlak.CPHR na někoho (=to exert pressure on somebody), vyvíjet nátlak.CPHR na nékoho (=to exert pressure on somebody), mit obavu.CPHR o nékoho (=to be concerned for somebody), mit vztah.CPHR k někomu (=to have a relationship with somebody), projevit souhlas.CPHR s někým (=to express agreement with somebody), provést útok. CPHR na někoho (=to carry out an attack against somebody), brát ohledy.CPHR na něco (=to take account of something), dát se do práce.CPHR na něčem (=to set to work on something), dát přednost.CPHR někomu před něčím (=to give priority to somebody over something).

- infinitive or dependent clause.

For example: vyslovit názor .CPHR že... (=to express the opinion that...), vydat pokyn (=to issue a command).CPHR udělat něco (=to do something), mit možnost / šanci / přiležitost .CPHR něco udělat (=to have the opportunity / chance to do something).

Requiring the infinitive construction is typical of nouns occurring in complex predicates which are synonymous with modal and phase verbs (in quasi-modal and quasi-phase verbs; see Section 6.9.2.1, "Quasi-modal and quasi-phase verbs"). In the case of complex predicates, various prepositional phrases are in some cases also possible alternatives to the infinitive (for example: $n a+4$ or $k+3$, not possible with one-word modal and phase verbs). Cf.:

- Petr má šanci.CPHR postoupit do finále / na postup do finále. (=Peter has a chance to reach the final / of reaching the final.)

Valency frame for one of the meanings of the noun šance (=chance):
$\operatorname{ACT}(.2 ; . \mathrm{u}) \operatorname{PAT}(\mathrm{k}+3, \mathrm{na}+4, \mathrm{f}, \mathrm{zze}$ that $)[. \mathrm{v}])$.
Also nouns which occur independently in a text (outside a complex predicate) may have infinitival modifications. Cf.:

- Petrova.ACT šance postoupit.PAT do finále tím výrazně vzrostla. (=Peter's chances of reaching the final were increased significantly by this.)
- Petrovo.ACT právo odvolat se. PAT mu nikdo nemůže upřit.(=Nobody can deny Peter's right to appeal.)


### 6.9.3.3.2.3. Borrowing of valency modification forms from the verbal component of a complex predicate

The valency frames of nouns occurring in complex predicates always incorporate all possible forms of a given modification found in PDT. The explanations of certain forms of valency modifications of nouns (in connection with their occurrence in the nominal component of complex predicates) are given in the following paragraphs.

We consider that a noun occurring in a complex predicate as its nominal component may borrow a form for the expression of its valency modification which is used to express a referentially identical valency modification of the verbal component (the noun itself would not require such a (form of) modification; in the case of deverbal nouns this form of modification is not present even with the base verb). The given valency modification may then also be expressed in this borrowed form when the
noun occurs outside the complex predicate (within the complex predicate the given valency modification is interpreted as dependent on the verbal component).

Nouns in the nominal component of the complex predicate borrow especially the forms of third valency modifications of verbs described in Section 6.9.3.3.1.1, "The valency frame of the verbal component of the complex predicate corresponds to the unmarked use of the verb". In particular, these are the following three forms:

- the dative.

The influence of the dative form of the third valency modification of the verbal component of the complex predicate on the valency behaviour of the nominal component of the given complex predicate is most evident in constructions with deverbal nouns with the relevant valency modification expressed by a non-prepositional accusative (for example in the case of the nouns: podpora (=support), pochvala (=praise)) or a non-prepositional genitive (for example in the case of the nouns: otázka ( $=$ question), $\operatorname{dotaz}$ ( $=$ question)).

On the basis of regular shifts in the surface realisation of valency modifications of deverbal nouns the accusative form should change to the genitive and the genitive form should not change. However, certain of the above mentioned nouns avoid the expression of the relevant valency modification by means of the genitive (for example: *otázka někoho.ADDR ( $=$ *the question of somebody)); instead, dative forms occur. And in the case of certain nouns both forms are possible - that is both the genitive and the dative. Cf.:

- Pochválili Zemana. PAT za výstižná slova. (=They praised Zeman for his telling words.)

The valency frame for one of the meanings of the predicate pochválit (=to praise):
ACT(.1) PAT(.4;že [.v];.c;.s).

- pochvala Zemana.PAT (=praise of Zeman) or pochvala Zemanovi.PAT za výstižná slova. (=praise to Zeman for his telling words.)

The valency frame for one of the meanings of the noun pochvala (=praise):
$\operatorname{ACT}(.2 ; \mathrm{od}+2 ; . \mathrm{u}) \operatorname{PAT}(.2 ; .3)$.

- Otázali se Komerčni banky.ADDR, zda to bude preferovat. (=They asked The Commercial Bank whether they would prefer this.)

The valency frame for one of the meanings of the predicate otázat se (=to ask):
$\operatorname{ACT}(.1) \operatorname{PAT}(n a+4 ; z d a[. v] ; j e s t l i ~[. v] ; . c ;$.s) $\operatorname{ADDR}(.2)$.

- otázka Komerční bance.ADDR, zda to bude preferovat (=the question to the Commercial Bank as to whether they would prefer this)

The valency frame for one of the meanings of the noun otázka (=the question):

$$
\operatorname{ACT}(.2 ; . \mathrm{u}) \operatorname{PAT}(\mathrm{o}+6, \text { po+6,zda [.v],jestli [.v],.c,.s) } \operatorname{ADDR}(.3) .
$$

If we wonder what the origin of a dative modification is, the influence of the dative form of the third valency modification of the verbal component of a complex predicate is one possible explanation; for example:

- Udělil pochvalu někomu. $\operatorname{ADDR}$ (=He bestowed praise on somebody)

The valency frame of the complex predicate udělit pochvalu (=to bestow praise):
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{c e n a-1$, pochvala, pokuta,rada-1 ,souhlas ,uznání,...\}.4) $\operatorname{ADDR}(.3)$. (=value, praise, fine, advice, consent, recognition, ...)

## - Položil otázku někomu.ADDR (=He put a question to somebody)

The valency frame of the complex predicate položit otázku (=to put a question) :
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{$ dotaz, otázka,...\}.4) ?ADDR(.3). ( = question,...)
In the case of certain non-deverbal nouns we can also observe a process of borrowing of a dative valency modification from the verbal component of the relevant complex predicate. These are in particular non-deverbal nouns occurring in complex predicates with the verbs dát (=to give) or udělit (=to confer) (=for example: cena (=a prize), poličéek (=a slap), pokuta (=a fine)). Cf.:

- políček polskému papeži. PAT od polského parlamentu.ACT (=a slap in the face to the Polish pope by the Polish parliament)

The valency frame for one of the meanings of the noun poliček (=slap):

$$
\operatorname{ACT}(.2 ; \mathrm{od}+2 ; . \mathrm{u}) \operatorname{PAT}(.3)
$$

- od +2 .

The borrowing of the form $o d+2$ from the verbal component of complex predicates is very common, despite the fact that there are few verbs with this construction (for example: dostat (=to get) and ziskat (=to acquire)). Whereas in the case of a verb a valency modification with this construction is usually assigned the functor ORIG, in the case of deverbal nouns this modification is usually assigned the functor ACT. And in the case of non-deverbal nouns this modification is assigned the functor ACT , by analogy with deverbal nouns. Cf.:

- Dostal slib.PAT od ministra.ORIG (=He got a promise from the minister)

The valency frame of the complex predicate dostat slib (=to get a promise):
$\operatorname{ACT}(.1) \operatorname{CPHR}(\{$ šance, výpověd’, odškodnění, prostor, doporučení, informace, impuls, možnost, nabídka, návrh, odpověd', povolení, pokuta, přednost, příležitost, příslib, přístup, rada, slib, souhlas, ujištění, rozkaz, úkol, zákaz, zpráva,...\}.4) ?ORIG(z+2;od +2). (=chance, notice, compensation, space, recommendation, information, impetus, opportunity, offer, proposal, reply, permission, fine, priority, opportunity, pledge, approach, advice, promise, agreement, assurance, order, task, prohibition, message,...)

- slib od ministra.ACT (=a promise from the minister)
$=$ ministr. ACT slibil. $(=$ the minister promised. $)$
The valency frame for one of the meanings of the noun slib (=promise):

$$
\operatorname{ACT}(.2 ; \mathrm{od}+2) \operatorname{PAT}(.2 ; \text {;f;že [.v]) ?ADDR(.3). }
$$

- $n a+4$.

The form $n a+4$ is frequently a verbal form, but in exceptional cases it may be a valency modification of the noun itself (for example: důraz na něco (=emphasis on something), konkurz na něco (=competition for something)). It is also questionable in some cases whether this is still a verbal valency or whether it becomes a valency modification of the noun adopted from the verb (cf. for example: nároky (kladené) na firmu (=demands (placed) on the company) vs. nároky na vybavení (=claims to equipment), similarly požadavky (kladené) na hráče (=requirements (placed) on players) v. požadavky na zdravotní nezávadnost (=requirements of perfect health)).

NB! In some cases, the valency of the verbal component of a complex predicate merely appears to influence the valency behaviour of the nominal component. Cf.:

- Poskytl Janovi péči.CPHR (=He provided John with care)

In the example shown, it might appear that under the influence of verbal valency the noun péče (=care) may, as far as its valency modification is concerned, adopt the dative form. However, when péče ( =care) is a self-standing noun, its valency modification is expressed only by the form $o+4$. We do not, therefore, anticipate the dative form in the valency frame of the noun péce (=care). In the example shown, the dative modification is a valency modification of the verb (not of the noun).

### 6.9.3.4. Representation of the valency of complex predicates in the tectogrammatical tree

This section describes how the valency of both parts of the complex predicate is represented in the tectogrammatical trees (for basic rules, see Section 6.2.4, "Representing valency in the tectogrammatical trees").

The nominal and verbal components of the complex predicate are assigned the appropriate valency frame from the valency lexicon. By means of newly established nodes with t-lemma substitutes, those valency modification positions not present at surface level are filled (see rules in Section 6.12.2, "Ellipsis of the dependent element" and especially here Section 6.9.3.4.2, "Sharing of valency modifications between the verbal and nominal components (quasi-control)").

Since in practice a complex predicate represents a single lexical unit, specific features appear in the representation of the valency of these predicates; they are described as:

- dual function of a valency modification of the complex predicate (see Section 6.9.3.4.1, "Dual function of a valency modification of the complex predicate"),
- sharing of referentially identical valency modifications between the nominal and verbal components of the complex predicate (quasi-control; see Section 6.9.3.4.2, "Sharing of valency modifications between the verbal and nominal components (quasi-control)").


### 6.9.3.4.1. Dual function of a valency modification of the complex predicate

Annotators must first of all determine whether a specific valency modification occurring at surface level belongs to the verbal or the nominal part of the complex predicate. In many cases the decision is straightforward:

- the given valency modification occurs with the given form in the valency frame of only one of the components of the complex predicate. In this case it is represented as dependent on the node for this component.
- the given valency modification occurs in the valency frames of both components of the complex predicate (a case of a shared modification; see Section 6.9.3.4.2, "Sharing of valency modifications between the verbal and nominal components (quasi-control)"), but in terms of its form it belongs to one of them only. In this case it is represented as dependent on the node for the component to which it formally belongs.

However, there are problematic cases where the expressed valency modification occurs in the same form in the valency frames of both components of the complex predicate (this is also a case of shared modification, see Section 6.9.3.4.2, "Sharing of valency modifications between the verbal and nominal components (quasi-control)"). A dual interpretation is most frequently found with valency modification in the dative and in the form $o d+2$. Cf.:

- Petr dostal od šéfa rozkaz přijít včas. (=Peter got from his boss an order to turn up on time)
$=$ Petr dostal od šéfa rozkaz od šéfa. (=lit. Peter got from (his) boss (an) order from (his) boss)
Cf. Fig. 6.158.

For such cases the following simple convention has temporarily been adopted: valency modifications with dual function are represented as primarily dependent on the node for the verbal component of the complex predicate (cf. Fig. 6.158).

For non-projective structures which may arise in this way, see Section 10.3.4.4, "Non-projectivities with unclear motivation (constructions with multi-word predicates)". For other cases of dual function of a single modification see Section 6.11.2, "Dual function of a single modification".

Figure 6.158. Dual function of a valency modification of the complex predicate


Petr dostal od šéfa rozkaz přijít včas. (=lit. Peter got from boss (an) order to_turn_up on_time.)
Cf. also Fig. 6.159 to Fig. 6.165.

### 6.9.3.4.2. Sharing of valency modifications between the verbal and nominal components (quasi-control)

Since certain combinations of a verb and a noun (i.e. a certain complex predicate) may be treated semantically as a single lexical unit, there is frequently a referential identity of certain valency modifications of nominal and verbal components of a complex predicate. The nominal and verbal components of the complex predicate share certain valency modifications.

This sharing is represented as quasi-control, as a specific type of grammatical co-reference (see Section 9.2.5, "Quasi-control").

At surface level, a referentially identical shared valency modification is expressed, as a rule, only once; cf.:

- Poskytnul Petrovi péči.CPHR (=He provided Peter with care)

Both the Addressee of the verb poskytovat (=to provide) and the Patient of the noun péče (=care) are one and the same referent (Petr (=Peter)). At surface level this referentially identical shared valency modification is expressed only once (one cannot say: *Poskytl Petrovi péči o něj/o Petra ( $=$ *He provided Peter with care for him/for Peter)).

The required form of the shared valency modification may be the same for both components of the complex predicate, or different; cf.:

- poskytnout Janovi péči.CPHR (=to provide John with care)

The verb poskytnout (=to provide) requires modification in the dative form (poskytnout Janovi), the noun péče (=to provide care for John) requires modification in the prepositional form $o+4$ (péče o Jana (=care for John)). The referentially identical (shared) modification Janovi (=for John) belongs formally to the verbal component of the complex predicate, so it will be dependent on the verbal component.

- poskytnout Petrovi pomoc.CPHR (=to provide assistance for Peter)

Both the verb poskytnout (=to provide) and the noun pomoc (=assistance) require modification in the dative form (poskytnout Petrovi (=to provide for Peter) and also pomoc Petrovi (=assistance for Peter)). The referentially identical (shared) modification Petrovi (=for Peter) may formally belong both to the verbal and to the nominal component of the complex predicate. These cases of competition are described in Section 6.9.3.4.1, "Dual function of a valency modification of the complex predicate".

The semantic-syntactic function of the shared valency modification may also be the same or it may differ. In the majority of complex predicates the valency modifications with the functor ACT are shared (this follows from the frequent possibility of a one-word expression of the complex predicate, see also Section 6.9.3.3.2.1, "The Actor of the nominal component of complex predicates"). However, also the Addressee of the verbal component and the Actor of the nominal component or the Origo of the verbal component and the Actor of the nominal component may be shared. Cf.:

- Firma.ACT má plán.CPHR, jak zvýšit zisk. (=The company has a plan for increasing profits.)

The expressed Actor of the verb mit (=to have) and the unexpressed Actor of the noun plán (=plan) are referentially identical (firma (=company)).

- Uložili Janovi.ADDR povinnost.CPHR splatit pohledávky. (=They set John the task of paying the claims)

The expressed Addressee of the verb uložit (=to set) and the unexpressed Actor of the noun povinnost (=task) are referentially identical (=Jan (=John)).

### 6.9.3.4.2.1. Representation of quasi-control in complex predicates

Annotators must first of all decide whether the particular shared valency modification occurring at surface level belongs to the verbal or to the nominal component of the complex predicate (on this, see Section 6.9.3.4.1, "Dual function of a valency modification of the complex predicate").

In place of the shared valency modification which is omitted at surface level (as a rule it is a case of valency modification of the nominal component), a new node is added to the tectogrammatical tree, with the t-lemma substitute \#QCor. In addition to the special t-lemma, referential identity is also indicated by the grammatical co-reference relation leading from this newly established node to the node for the second shared valency modification. Cf.:

- Voják podal \{\#QCor.ACT\} hláśení.CPHR v kasárnách. (=The soldier gave a report at the barracks.)

The Actor of the governing verb of the complex predicate (the noun voják (=soldier)) is identical with the (unexpressed) Actor of the noun in the nominal component of the complex predicate (with the Actor of the noun hlášení (=report)): the person who gave something and the person who re-
ported were one and the same: voják ( $=$ the soldier). Therefore, in place of the unexpressed Actor of the nominal component of the complex predicate, a new node with the t -lemma substitute \# QCor is added, from which a co-reference relationship leads to the expressed Actor of the verbal component of the complex predicate, to the noun voják (=soldier) (cf. Fig. 6.159).

If the shared referentially identical valency modification is not expressed at surface level at all, it is represented in the nominal component of the complex predicate by a newly established node with the t-lemma \#QCor, and in the verbal component the newly established node for this modification has a t -lemma substitute based on the type of elision (for rules see Section 6.12.2, "Ellipsis of the dependent element"), thus: \#Gen, \#PersPron, possibly \#Unsp; (cf. Fig. 6.160). Cf.:

Petr dostal \{\#Gen.ORIG\} \{\#QCor.ACT\} rozkaz príijit. (=Peter got the order to come.)

## Figure 6.159. Representation of shared referentially identical valency modifications



Voják podal hlášení v kasárnách. (=lit. (The) soldier gave (a) report at (the) barracks.)

Figure 6.160. Representation of shared referentially identical valency modifications


Petr dostal rozkaz přijít. (=lit. Peter got (the) order to_come.)
Restrictions on the assignment of the t-lemma \#QCor. If the shared valency modification is expressed at surface level and formally evidently belongs to the nominal component of the complex predicate (so the node for the expressed shared valency modification is thus dependent on the node for the nominal component), the node for the unexpressed referentially identical modification is dependent on the node for the verbal component. The assignment of the t -lemma $\mathrm{\# QCor}$ to the newly established node dependent on a verb is however limited by a number of other annotation rules for $t$-lemma substitutes for newly established dependent nodes (see in particular Section 6.12.2, "Ellipsis of the dependent element").

A newly established node for an unexpressed valency modification of the verbal component of a complex predicate, referentially identical with the expressed valency modification of the nominal component, cannot be assigned the t-lemma \#QCor (and therefore this type of (shared) referential identity cannot be indicated in the construction) in those cases where the node for this unexpressed referentially identical valency modification of the verbal component of the complex predicate should, according to other annotation rules, have the t-lemma:

- \#Gen

The expressed modification of the nominal component of the complex predicate is referentially identical with the unexpressed Actor of the verbal component of the complex predicate; however, the verb has the form of a reflexive passive and the node for the unexpressed Actor of the verb in the reflexive passive is assigned the t-lemma \#Gen (see Section 6.2.4.1, "General arguments and unspecified Actors"). Cf.:

- \{\#Gen.ACT\} Přes nedávné přiméří se v jižní části Tádžikistánu stále vedou boje.CPHR mezi stoupenci.ACT bývalého prezidenta Rachmana Nabijeva a jeho odpůrci.ACT (=Despite the recent truce, fighting is still continuing in the southern part of Tadzhikistan between supporters of the former president Rachman Nabiyev and his opponents)

The Actor of the nominal component of the complex predicate (stoupenci bývalého prezidenta Rachmana Nabijeva a jeho odpůrci (=supporters of the former president Rachman Nabiyev and his opponents)) is referentially identical with the unexpressed Actor of the verbal component: those who are fighting and those who are carrying on the fighting are the same people. However, in place of the unexpressed Actor of the verbal component of the complex predicate a new node with the t-lemma substitute \#Gen is added because the verb is formally a reflexive passive.

- \#PersPron or \#Unsp

The expressed modification of the nominal component of the complex predicate is referentially identical with the unexpressed Actor (the subject) of the verbal component of the complex predicate; however, the verb is active and is in a particular form, and the node for the unexpressed Actorsubject of the active verb is assigned the t-lemma \#PersPron or \#Unsp (see Section 6.12.2.1, "Ellipsis of an obligatory modification" and Section 6.2.4.1, "General arguments and unspecified Actors"). Cf.:

- \{\#PersPron.ACT\} Nese svou.ACT osobní odpovědnost.CPHR (=He bears his own personal responsibility)

The Actor of the nominal component of the complex predicate (svůj (=his own)) is referentially identical with the unexpressed Actor of the verbal component: the person who is responsible and the one who bears this responsibility are one and the same. However, in place of the unexpressed Actor of the verbal component of the complex predicate a new node with the $t$-lemma substitute \#PersPron is added because the verb is in the active verb form.

- \#Oblfm

The expressed modification of the nominal component of the complex predicate is referentially identical with the unexpressed obligatory adjunct (LOC) of the verbal component of the complex predicate. The node for the unexpressed obligatory modification with the functor LOC is assigned the t -lemma \# Obl fm, because this t-lemma is uniformly assigned to all unexpressed obligatory adjuncts (see Section 6.12.2.1.3, "Ellipsis of an obligatory free modification (t-lemma substitutes \#Obl fm and \#Rcp)"). Cf.:

- Vyvolalo \{\#Oblfm.LOC\} to nevoli.CPHR britské vlády.ACT (=It evoked the indignation of the British government)

The Actor of the nominal component of the complex predicate (britská vláda (=the British government)) is referentially identical with the unexpressed obligatory place adjunct of the verbal component: the person who is indignant and the one in whom indignation was aroused are one and the same referent. However, in place of the unexpressed obligatory place adjunct of the verbal component of the complex predicate a new node is added with the t-lemma substitute \#Oblfm, because obligatory free modifications are assigned this uniform t-lemma.

- \#Cor

The expressed modification of the nominal component of the complex predicate is referentially identical with the unexpressed valency modification in the position of the subject of the verbal component of the complex predicate; however, this unexpressed subject is in the position of the controllee, so the node has the t-lemma \#Cor (see Section 9.2.4, "Control"). Cf.:

- Dáváme šance \{\#Cor.ACT\} vyjádřit své.ACT sympatie.CPHR váhavým. (=We are giving the waverers a chance to express their sympathies.)

The Actor of the nominal component of the complex predicate (své (=their)) is referentially identical with the unexpressed Actor-subject of the verbal component: those who have sympathy and those who express it are the same people. However, in place of the unexpressed Actorsubject of the verbal component of the complex predicate a new node is added with the t-lemma substitute \#Cor, because here the unexpressed subject is in the position of the controlled element.

The node with the t-lemma \#QCor dependent on the verbal component of the complex predicate. The newly established node for the unexpressed valency modification of the verbal component of the complex predicate, referentially identical with the expressed valency modification of the nominal component, is assigned the t-lemma \#QCor (and in the construction the type of (shared) referential identity is therefore indicated), particularly in these cases:

- the verbal component of the complex predicate is in the periphrastic passive and the unexpressed referentially identical modification is the Actor of this verbal component.

Cf.:

- \{\#QCor.ACT\} Mezi britskou vládou.ACT a Irskou republikánskou armádou.ACT nebyly před vyhlášením přiměří uzavřeny žádné dohody.CPHR (=No agreements were reached between the British government and the Irish Republican Army before the declaration of a truce)

The Actor of the nominal component of the complex predicate (britská vláda a Irská republikánská armáda (=the British government and the Irish Republican Army)) is referentially identical with the unexpressed Actor of the verbal component: those who agreed and those who concluded an agreement are the same people. In place of the unexpressed Actor of the verbal component of the complex predicate a new node is added with the $t$-lemma substitute \#QCor, from which the coreference relation leads to the node for the expressed Actor of the nominal component of the complex predicate (cf. Fig. 6.161).

- the unexpressed referentially identical Actor of the verbal component of the complex predicate is not in the position of the subject.

Cf.:

- To znamená, že \{\#QCor.ACT\} nezaniká nárok.CPHR věřitele .ACT na jeho vymáhání.(=That means that the right of the creditor to demand it does not lapse.)

The Actor of the nominal component of the complex predicate (věritel (=creditor)) is referentially identical with the unexpressed Actor of the verbal component: the person who has a right and the one whose right has not lapsed, are one and the same. In place of the unexpressed Actor of the verbal component of the complex predicate a new node is added with the $t$-lemma substitute \#QCor, from which the coreferential relationship leads to the node for the expressed Actor of the nominal component of the complex predicate.

- the unexpressed referentially identical modification of the verbal component of the complex predicate is not the same modification as the Actor.

Cf.:

- Nedi̛věru.CPHR $k$ prezidentovi.PAT projevilo \{\#QCor.ADDR\} 71 procent dotázaných. (=Mistrust towards the president was expressed by 71 per cent of those questioned)

The Patient of the nominal component of the complex predicate (k prezidentovi (=towards the president)) is referentially identical with the unexpressed Addressee of the verbal component: the person they mistrusted and the one in whom they expressed mistrust are one and the same. In place of the unexpressed Addressee of the verbal component of the complex predicate a new node is added with the $t$-lemma substitute \#QCor, from which the coreferential relationship leads to the node for the expressed Patient of the nominal component of the complex predicate.

- \{\#QCor.ORIG\} Ziskal souhlas .CPHR všech členů.ACT (=He obtained the agreement of all the members)

The Actor of the nominal component of the complex predicate (všichni členové (=all the members)) is referentially identical with the unexpressed Origo of the verbal component: those who agree and those whose agreement was obtained are the same people. In place of the unexpressed Origo of the verbal component of the complex predicate is added a new node with the t-lemma substitute \#QCor, from which leads the coreferential relationship to the node for the expressed Actor of the nominal component of the complex predicate.

Figure 6.161. Representation of shared referentially identical valency modifications


Mezi britskou vládou a Irskou republikánskou armádou nebyly před vyhlášením přiméří uzavřeny žádné dohody. (=lit. Between (the) British government and the (Irish) Republican Army were_not before (the) declaration (of a) truce concluded no agreements.)

### 6.9.3.4.2.2. Types of quasi-control in complex predicates

So far the following types of sharing of valency modifications have been described:

- a construction with a complex predicate is synonymous with an active construction (with a oneword predicate):
- identity of the Actor of the verbal component with the Actor of the nominal component of the complex predicate.

This group includes the majority of complex predicates. It involves, in particular, quasi-modal and quasi-phase verbs (for example: mít právo (=to have the right), mít šanci (=to have a chance), zájem (=interest), dostat strach (=to take fright), pozbýt odvahu (=to lose the courage), zaujmout názor (=to adopt a view); see Section 6.9.2.1, "Quasi-modal and quasi-phase verbs") and also synonymous expression of many other verbs with various meanings (for example: brát ohledy na někoho (=to be considerate towards somebody) = ohlížet se na někoho (= to be considerate towards somebody); činit si nárok (=to make a claim) = nárokovat si (= to claim); dělat přípravy (=to make preparations) = připravovat se (= to prepare oneself); upřit pozornost (=to fix attention); věnovat pozornost / čas (=to devote attention / time)). Cf.:

- Pavel.ACT má \{\#QCor.ACT\} zájem.CPHR o studium (=Paul has an interest in studying).

The Actor of the governing verb of the complex predicate (the noun Pavel (=Paul) is identical with the (unexpressed) Actor of the noun in the nominal component of the complex predicate (with the Actor of the noun zájem (=interest)): the person who has something and the one who is interested in studying are one and the same. In place of the unexpressed Actor of the nominal component of the complex predicate a new node is therefore added with the t-lemma substitute \#QCor, from which the coreferential relationship leads to the node for the expressed Actor of the verbal component of the complex predicate, to the noun Pavel (=Paul) (cf. Fig. 6.162).

A further example:
Petr.ACT přišel \{\#QCor.ACT\} na nápad.CPHR udělat překvapení. (=Peter had the idea of springing a surprise) Fig. 6.163

- the identity of the Addressee, or another valency modification of the verbal component (which is not an Actor), with the Actor of the nominal component of the complex predicate.

This group includes for example the complex predicates: dát možnost (=to give an opportunity) (=umožnit) (=to make it possible), ukládat povinnost (=to impose an obligation) (= přikázat) (=to order), vzbudit (=v nëkom) dojem / zájem (=to arouse (in somebody) an impression / interest). As a rule the Addressee of the governing verb of the complex predicate is identical with the Actor of the noun in the nominal component. Cf.:

- Předseda uložil zaměstnancům.ADDR \{\#QCor.ACT\} povinnost.CPHR hlásit pozdní přichody. (=The chairman imposed on the employees the obligation to report late arrivals.)

The Addressee of the governing verb of the complex predicate (the noun zaméstnancuim (=employees)) is identical with the (unexpressed) Actor of the noun in the nominal component of the complex predicate (with the Actor of the noun povinnost (=obligation)): the person on whom something was imposed and the one who had some obligation were one and the same: zaméstnanci (=employees). In place of the unexpressed Actor of the nominal component a new node is therefore added with the t-lemma substitute \# QCor, from which the coreferential relationship leads to the node for the expressed Addressee of the verbal component, to the noun zaměstnancuim (=employees) (cf. Fig. 6.164).

- the identity of the Actor of the verbal component with the Actor of the nominal component of the complex predicate and likewise the identity of the Addressee of the verbal component with the Addressee (or, as the case may be, the Patient or other valency modification) of the nominal component of the complex predicate.

This group includes for example the complex predicates: dát přikaz (=to issue a command) (=přikázat) (=to command), dát pochvalu (=to offer praise) (= pochválit) (=to praise), dát dưtku (=to issue a reprimand) (= pokárat) (= to reprimand), dát radu (=to give advice) (= poradit) (= to advise), klást otázku / dotaz (=to put a question) (=ptát se) (=to ask), položit otázku /
dotaz (=to put a question) (=zeptat se) (=to ask), poskytnout / poskytovat radu / službu / pomoc (=to provide advice / a service / help) (= poradit / posloužit / pomoci) (=to advise / to serve / to help), udělit pochvalu (=to speak in praise of) (= pochválit) (= to praise), udělit důtku (=to issue a reprimand) (=pokárat) (=to reprimand). Cf.:

- Pavel.ACT dal Petrovi.ADDR \{\#QCor.ACT\} \{\#QCor.ADDR\} radu.CPHR (=Paul gave Peter advice)

The Actor of the governing verb of the complex predicate (the noun Pavel (=Paul)) is identical with the (unexpressed) Actor of the noun in the nominal component of the complex predicate (with the Actor of the noun rada (=advice)): the person who gave something and the one who advised were one and the same: Pavel (=Paul). In place of the unexpressed Actor of the nominal component of the complex predicate a new node is therefore added with the t-lemma substitute \#QCor, from which the coreferential relationship leads to the node for the expressed Actor of the verbal component of the complex predicate, to the noun Pavel.

The Addressee of the governing verb of the complex predicate (the noun Petrovi (=to Peter)) is identical with the (unexpressed) Addressee of the noun in the nominal component of the complex predicate (with the Addressee of the noun rada (=advice)): the person to whom something was given and the one who got advice were one and the same: Petr ( $=$ Peter). In place of the unexpressed Addressee of the nominal component of the complex predicate a new node is therefore added with the t-lemma substitute \#QCor, from which the coreferential relationship leads to the node for the expressed Addressee of the verbal component of the complex predicate, to the noun Petrovi (=to Peter) (cf. Fig. 6.165).

- the construction with a complex predicate is an expression synonymous with the passive construction (with a one-word predicate):
- identity of the Actor of the verbal component and the Actor of the nominal component of the complex predicate:

This group includes for example the complex predicates: dostat přiležitost (=to get an opportunity), ziskat možnost (=to obtain an opportunity) (=bylo mu umožněno (=it was made possible for him)). Cf.:

- Martin.ACT dostal \{\#QCor.ACT\} možnost.CPHR studovat v zahraničí. (=Martin got an opportunity to study abroad.)

The Actor of the governing verb of the complex predicate (the noun Martin (=Martin)) is identical with the (unexpressed) Actor of the noun in the nominal component of the complex predicate (with the Actor of the noun možnost (=opportunity)): the person who got something and the one who had an opportunity were one and the same: Martin (=Martin). In place of the unexpressed Actor of the nominal component of the complex predicate a new node is therefore added with the t -lemma substitute \# QCor, from which the coreferential relationship leads to the node for the expressed Actor of the verbal component of the complex predicate, to the noun Martin.

- the identity of the Origo of the verbal component with the Actor of the nominal component of the complex predicate and likewise the identity of the Actor of the verbal component with the Addressee (or, as the case may be, the Patient, or another valency modification) of the nominal component of the complex predicate.

This group includes for example the complex predicates: dostat (od někoho.ORIG) príkaz (=to get an order (from somebody)) (=bylo mu přikázáno (=he was ordered)), dostat (=od nëkoho.ORIG) pochvalu (=to get praise (from somebody)) (=být pochválen (=to be praised)), dostat (od někoho.ORIG) důtku (=to get a reprimand (from somebody)) (=být pokárán (=to be reprimanded)). Cf.:

- Voják.ACT dostal od velitele.ORIG \{\#QCor.ACT\} \{\#QCor.ADDR\} přikaz.CPHR opustit kasárna. (=The soldier got from his commander the order to leave the barracks)

The Origo of the governing verb of the complex predicate (the noun velitel (=commander)) is identical with the (unexpressed) Actor of the noun in the nominal component of the complex predicate (with the Actor of the noun prikaz (=order)): the person from whom the order comes and the one who ordered were one and the same: velitel (=commander). In place of the unexpressed Actor of the nominal component of the complex predicate a new node is therefore added with the $t$-lemma substitute \# QCor, from which the coreferential relationship leads to the node for the expressed Origo of the verbal component of the complex predicate, i.e. to the prepositional phrase od velitele (=from the commander).

The Actor of the governing verb of the complex predicate (the noun voják (=soldier)) is identical with the (unexpressed) Addressee of the noun in the nominal component of the complex predicate (with the Addressee of the noun prikaz (=order)): the person who got something and the one who was ordered to do something are one and the same: voják (=soldier). In place of the unexpressed Addressee of the nominal component of the complex predicate a new node is therefore added with the $t$-lemma substitute \# QCor, from which the coreferential relationship leads to the node for the expressed Actor of the verbal component of the complex predicate, to the noun voják (=soldier).

Figure 6.162. Representation of shared referentially identical valency
modifications


Pavel má zájem o studium. (=lit. Paul has (an) interest in studying.)

Figure 6.163. Representation of shared referentially identical valency modifications


Petr přišel na nápad udělat překvapení. (=lit. Peter came with (the) idea of_springing (a) surprise.)

Figure 6.164. Representation of shared referentially identical valency modifications


Předseda uložil zaměstnancům povinnost hlásit pozdní přichody. (=lit. (The) chairman imposed (on the) employees (the) obligation to_report late arrivals.)

Figure 6.165. Representation of shared referentially identical valency modifications


Pavel dal Petrovi radu. (=lit. Paul gave Peter (some) advice)

### 6.9.4. Borderline cases with multi-word predicates

The respective types of multi-word predicates (in particular verbal idioms and complex predicates) may overlap; however, it may also be difficult to determine whether it is a case of a type of multi-word predicates at all (this is especially true when a verb is used in its abstract meaning or in phrases signifying "a state").

Borderlines between complex predicates and verbal idioms. The main differences between complex predicates (see Section 6.9.3, "Complex predicates") and verbal idioms (see Section 6.8.2, "Verbal idioms") are introduced in Table 6.5, "The borderline between complex predicates (CPHR) and verbal idioms (=DPHR)".

Table 6.5. The borderline between complex predicates (CPHR) and verbal idioms (=DPHR)

| Complex predicates (CPHR) | Verbal idioms (DPHR) |
| :--- | :--- |
| The governing verb is semantically empty; <br> the lexical meaning is carried by a depend- <br> ent noun. | The lexical meaning is carried by the phrase as a whole. <br> The meaning of the phrase is strongly marked, not corres- <br> ponding to the combination of meanings of the individual <br> components of the idiom. |
| The phrase may be replaced in regular cases <br> by a one-word predicate having the same <br> meaning. | As a rule, the phrase does not have a corresponding ex- <br> pression in the form of a one-word predicate. |
| The dependent noun retains its valency (and <br> also its ability to be modified further). | The dependent components of the idiomatic expression <br> lose their valency properties (they may share them with <br> the governing verb) and as a rule they are not even modi- <br> fied by free modifications. |


#### Abstract

Abstract, metaphorical use of verbs (for example: oživit mírový proces (=to revive the peace process); vyjit z předpokladu (=to make an assumption)) must be distinguished in particular from verbal idioms and from complex predicates. While verbs used metaphorically have an abstract, figurative meaning, they do not form a single lexical unit with their valency modifications and a multi-word predicate is not formed. The nodes for the dependent modifications have in these cases one of the functors for the arguments (as a rule, PAT). In the valency lexicon, metaphorical (abstract) meanings of the verb are represented by separate valency frames (on this, see also Section 6.2.3.1.1, "Literal, abstract and idiomatic meanings of verbs").

Phrases signifying "a state". In cases of combinations of a verb and a prepositional phrase it is not always clear what type of predicate is involved. The interpretation of a phrase as a complex predicate is in competition in particular with the interpretation of a given phrase as a verbal idiom or a phrase signifying a "state". Cf.:


- dostat se do konfliktu.CPHR (=to come into conflict)

In complex predicates the nominal component has the functor CPHR.

- brát v úvahu.DPHR (=to take into account)

In verbal idiomatic expressions the non-verbal component has the functor DPHR.

- ocitnout se v krizi.DIR3 (=to find oneself in a crisis)

In phrases signifying "a state" the dependent modification has the semantically closest functor. Phrases signifying "a state" are not treated as multi-word predicates.

Modifications with the meaning of "a state" are described in Section 7.13.2, "Attribute with the meaning of "state"".
!!! It must be pointed out, of course, that between all these types there runs a very broad transitional zone and clear criteria for their differentiation still remain to be established.

### 6.10. Predicative complement (dual dependency)

At the tectogrammatical level, also cases of the so-called predicative complement are represented. The predicative complement is a non-obligatory free modification (adjunct) which has a dual semantic dependency relation. It simultaneously modifies a noun and a verb (which can be nominalized).

These two dependency relations are represented by various means:

- the dependency on a verb is represented by means of an edge (which means it is represented in the same way as other modifications),
- the dependency on a (semantic) noun is represented by means of the attribute compl.rf, the value of which is the identifier of the modified noun (see Table 6.6, "Values of the attribute compl.rf").

Table 6.6. Values of the attribute compl . rf
PML reference the identifier of the node, usually within the same tectogrammatical tree, with which the predicative complement is in the second dependency relation

A non-obligatory modification which has these two dependency relations, i.e. a modification which is considered a predicative complement, is always assigned the functor COMPL (see Section 7.11,
"Functor for the predicative complement (COMPL)"). Each node with the functor COMPL (and only such a node) has therefore the attribute compl.rf filled with a value.

## Compare:

- Mluvil o něm jako o svém otci.COMPL (=lit. (He) spoke of him as of his father)

The dependency of the predicative complement jako o (svém) otci (=lit. as of (his) father) on the verb is represented by an edge: the node which represents the predicative complement (the node with the functor COMPL) depends on the node representing the verb mluvit (=to_speak). The dependency on the noun (the prepositional phrase o něm (=lit. of him)) is represented with the help of the value of the attribute compl.rf. The value of the attribute compl.rf is constituted by the identifier of the node for the prepositional phrase o něm (=lit. of him) (cf. Fig. 6.166).

The dependency on the noun with some types of predicative complements is formally marked by the agreement of the grammatical categories (gender and number) between the predicative complement and the governing noun. The dependency on the verb is - with some types of predicative complements - formally marked by the assigned case (for more details see the description of the individual types).

Borders with arguments. Valency modifications (prepositional or non-prepositional) which can be considered to have a dual depedency are represented as arguments of the governing verb and their functor is usually PAT or EFF; their dependency on a noun is determined by the meaning of the verb as it is described by a valency frame. Cf.:

- Hodnotil situaci jako špatnou.EFF (=lit. (He) evaluated (the) situation as (a) bad (one).)
- Jako odbornik.COMPL hodnotil situaci jako špatnou.EFF (=lit. As (an) expert (he) evaluated (the) situation as (a) bad (one).)

For the dual dependency see also Section 6.1.1, "Dual dependency".
Borders with other adjuncts. Modifications expressed by adverbs and prepositional phrases are not considered predicative complements. Their semantic relation is not clearly dual, unlike the predicative complements; their semantic scope usually varies. They are represented in accordance with the rules described in Section 6.11, "Ambiguous structures". Cf.:

- Babička seděla u stolu shrbená.COMPL (=lit. Granny was_sitting at (the) table hunched.)
- Babička seděla u stolu shrbeně.MANN (=lit. Granny was_sitting at (the) table in_a_hunched_way.)
- Závodník skončil druhý.COMPL (=lit. (The) contestant came second.)
- Závodnik skončil na druhém mistě.LOC (=lit. (The) contestant finished on (the) second place.)

Figure 6.166. Representing the second dependency of a predicative complement


Mluvil o něm jako o svém otci. (=lit. (He) spoke of him as of his father.)
The following sub-sections provide a detailed description of individual types of predicative complement constructions which are divided into three groups according to their form:

- predicative complements expressed by a noun (see Section 6.10.1, "Predicative complement expressed by a noun"),
- predicative complements expressed by a verb form (see Section 6.10.2, "Predicative complement expressed by a non-finite verb form"),
- predicative complements expressed by a dependent clause (see Section 6.10.3, "Predicative complement expressed by a dependent clause").


### 6.10.1. Predicative complement expressed by a noun

Predicative complements expressed by a noun can be:

- simple (i.e. not introduced by a preposition or conjunction),
- introduced by the conjunctions "jako", "jakožto", "coby".

Predicative complements are classified here according to which traditional part of speech they are expressed by, i.e.:

- predicative complement expressed by a noun (see Section 6.10.1.1, "Predicative complement expressed by a noun"),
- predicative complement expressed by an adjective (see Section 6.10.1.2, "Predicative complement expressed by an adjective"),
- predicative complement expressed by a numeral (see Section 6.10.1.3, "Predicative complement expressed by a numeral").


### 6.10.1.1. Predicative complement expressed by a noun

A noun in the position of a predicative complement and its governing noun in principal agree in gender and number, but not necessarily. The case of the noun is determined by the valency of the verb with simple predicative complements and in cases of predicative complements introduced by a conjunction, the predicative complement has the same case as its governing noun.

A simple nominal predicative complement represents the least frequent type of predicative complement. Its form is fixed, lexicalized, e.g.:

Seděla mu modelem.COMPL (=lit. (She) was_sitting (for) him (as) (a) model.) Fig. 6.167
Examples of nominal predicative complements with the conjunction jako, jakožto, coby (=as):
Pozvali toho chlapce jako představitele. COMPL hnutí (=lit. (They) invited the boy as (a) representative (of) (the) movement.). Fig. 6.168

Dal domy coby záruku.COMPL (=lit. (He) gave (the) houses as (a) guarantee.) Fig. 6.169
SČechy jako s národem.COMPL počítáme (=lit. With (the) Czech as - (a) nation (we) count (on).)
Nominalization of the verb on which the predicative complement depends. Constructions with a nominalization of a verb are represented in a way similar to the constructions in which the predicative complement depends on a finite verb form. They only differ in the structure: while the node representing the second governing element (i.e. the node representing a noun) of a predicative complement depends on the verb too, this does not have to be the case with predicative complements modifyng deverbal adjectives.

Compare:

- Poslední volby vyhrál s programem postaveným jako negace.COMPL programu minulého (=lit. (The) last election (he) won with (a) program constituted as (a) negation (of) (the) program last.)

The predicative complement jako negace (=lit. as (a) negation) depends on the deverbal adjective postaveným (=constituted) and on the prepositional phrase s programem (=lit. with (a) program). The dependency on the deverbal adjective is represented by an edge. The dependency on the prepositional phrase is represented by the attribute compl. rf (srov. Fig. 6.170).

Examples of predicative complements dependent on a nominalized verb:
Předání domu coby záruky.COMPL proběhlo bez problémů (=lit. (The) hand _over (of) (the) house as (a) guarantee passed_off--.) Fig. 6.171

Postavení programu jako negace.COMPL se jim vyplatilo (=lit. (The) constitution (of) (the) program as (a) negation - (for) them paid_off.).

Za sezení modelem.COMPL jí platil (=lit. For sitting (as) (a) model (he) her paid.).

Figure 6.167. Predicative complement expressed by a noun


Seděla mu modelem. (=lit. (She) was_sitting (for) him (as) (a) model.)
Figure 6.168. Predicative complement expressed by a noun


Pozvali toho chlapce jako představitele hnutí. (=lit. (They) invited the boy as (a) representative (of the) movement.)

Figure 6.169. Predicative complement expressed by a noun


Dal domy coby záruku. (=lit. (He) gave (the) houses as (a) guarantee.)

Figure 6.170. Predicative complement expressed by a noun


Poslední volby vyhrál programem postaveným jako negace programu minulého. (=lit. (The) last election (he) won (with) (a) program constituted as (a) negation (of) (the) last program.)

Figure 6.171. Predicative complement expressed by a noun


Předání domu coby záruky proběhlo bez problémů. (=lit. (The) hand_over (of) (the) house as (a) guarantee passed_off --.)

### 6.10.1.2. Predicative complement expressed by an adjective

Adjectival predicative complements (simple or introduced by a conjunction) formally express the dependency on the governing noun: by agreement in gender, number and case.

The term simple adjectival predicative complement is used for cases in which an adjectival attribute does not occupy its unmarked pre-nominal position but when it occurs in the post-nominal position or another position within a sentence; cf.:

- Mám rád studené.RSTR pivo (=lit. (I) - like cold beer.)
- Mám rád pivo studené.COMPL (=lit. (I) - like beer cold.)
- Pivo mám nejradši studené.COMPL (=lit. Beer (I) - like the_best cold.)

This rule does not apply to set expressions with a postponed attribute such as kočka domácí (=lit. cat domestic), kyselina sirová (=lit. acid sulphuric).

No node representing the governing noun of the adjective is added with predicative complements (see also Section 6.12.1.2, "Ellipsis of the governing noun").

Examples of simple adjectival predicative complements:
Našli kamaráda nemocného.COMPL (=lit. (They) found (a) friend ill.) Fig. 6.172
Jan to udělal sám. COMPL (=lit. Jan it did by_himself.) Fig. 6.173
Jan seděl na návštěvě spokojený/spokojen.COMPL (=lit. Jan was_sitting on (a) visit content.)
Jan potkal kamaráda převlečeného.COMPL za Fausta (=lit. Jan met (a) friend dressed_up like Faust.)

Propiskou pišu jen modrou.COMPL (=lit. With (a) stylo (I) write only blue.)
Jana to udělala ráda.COMPL (=lit. Jana it did with_pleasure.)
Zvírata jsou po pokusu všechna.COMPL utracena (=lit. (The) animals are after (the) experiment all put_down.)

Rád.COMPL bych zdůraznil, že to není náš problém, ale váš (=lit. (I) like would to_emhasize that it is_not our problem but yours.)

Sami.COMPL zakládají družstva nová.COMPL (=lit. Themselves (they) establish associations new.)
Examples of adjectival predicative complements with the conjunction jako, jakožto, coby (=as/like):
Kamarád ležel jako nemocný.COMPL (=lit. (The) friend was_lying as_if ill.) Fig. 6.174
Mzdová regulace se bagatelizuje jako bezvýznamná.COMPL (=lit. Wage regulation is_disparaged as meaningless.)

Constructions with a simple adjectival predicative complement and those with a conjunction have been represented in the same way so far although they differ both formally and semantically. cf.:

- Našel kamaráda nemocného (=lit. (He) found (a) friend ill.).

The simple adjectival predicative complement expresses a permanent quality.

- Našel kamaráda jako nemocného (=lit. (He) found (a) friend as_if ill.)

The adjectival predicative complement with a conjunction expresses a temporary quality.
!!! The two constructions will be distinguished by subfunctors of the functor COMPL in the future.
Nominalization of the verb on which the predicative complement depends. Constructions in which the verb is nominalized are represented in a way similar to the constructions in which the predicative complement modifies a finite verb form. They only differ in the structure: while the node representing the second governing element (i.e. the node representing a noun) of the predicative complement depends on the verb too, this does not have to be the case with predicative complements modifying deverbal adjectives.

## Figure 6.172. Predicative complement expressed by an adjective



Našli kamaráda nemocného. (=lit. (They) found (a) friend ill.)

Figure 6.173. Predicative complement expressed by an adjective


Jan to udělal sám. (=lit. Jan it did by_himself.)
Figure 6.174. Predicative complement expressed by an adjective


Kamarád ležel jako nemocný. (= (The) friend was_lying as_if ill.)

### 6.10.1.3. Predicative complement expressed by a numeral

If a numeral in a sentence with a full verb is detached from its counted object, it is represented as a predicative complement. No node for a governing noun is added to the structure.

Examples of predicative complements expressed by a numeral:
Kluci přišli tři.COMPL (=lit. (The) boys came three.) Fig. 6.175
Jako favoritka.COMPL skončila až třetí.COMPL (=lit. As (a) favourite (she) was only the third.) Fig. 6.176

Dívky přišly jen dvě.COMPL (=lit. (The) girls came only two.)
Stromů porazili skoro tisićc.COMPL (=lit. Trees (they) cut down almost (a) thousand.)

Petr doběhl jako druhý.COMPL (=lit. Petr came as second.)
Figure 6.175. Predicative complement expressed by a numeral


Kluci přišli tři. (=lit. (The) boys came three.)
Figure 6.176. Predicative complement expressed by a numeral


Jako favoritka skončila až třetí. (=lit. As (a) favourite (she) was only the_third.)

### 6.10.2. Predicative complement expressed by a non-finite verb form

There are three types of predicative complements expressed by a non-finite verb form:

- predicative complement expressed by a participle (see Section 6.10.2.1, "Predicative complement expressed by a participle"),
- predicative complement expressed by a transgressive (gerund; see Section 6.10.2.2, "Predicative complement expressed by a transgressive (gerund)"),
- predicative complement expressed by an infinitive (see Section 6.10.2.3, "Predicative complement expressed by an infinitive").

The t-lemma of these predicative complements is always the appropriate infinitive and a valency frame is always assigned.

The relation between a predicative complement and the noun it modifies is expressed also formally (this applies to participles and transgressives), i.e. by agreement in the nominal categories. This governing noun is in a grammatical coreference relation with one of the valency modifications (Actor or Patient) of the predicative complement. (see Section 9.2.3, "Coreference with verbal modifications that have dual dependency").

Frozen non-agreeing transgressives and participles are not represented as predicative complements but they are represented by means of other functors; for details see Section 6.5.1.2.1, "Non-agreeing participial constructions" and Section 6.5.1.3.1, "Frozen transgressive constructions".

### 6.10.2.1. Predicative complement expressed by a participle

A dependent participial construction, if it is not an argument of the governing verb, is represented as a predicative complement (see Section 6.5.1.2, "Dependent participial constructions").

Examples:
Odcházela poražena.COMPL (=lit. (She) was_leaving defeated.) Fig. 6.177
Akce, podporována. COMPL mnoha sponzory, se velmi zdařila (=lit. (The) event supported (by) many sponsors - very was_successful.)

Figure 6.177. Predicative complement expressed by a participle


Odcházela poražena. (=lit. (She) was_leaving defeated.)

### 6.10.2.2. Predicative complement expressed by a transgressive (gerund)

Agreeing forms of transgressives (the subject of which corefers with the subject of the governing verb) are regularly represented as predicative complements (see also Section 6.5.1.3, "Transgressive (gerund) constructions").

Examples:
Odešel, zpívaje si.COMPL (=lit. (He) left singing (to)_himself.) Fig. 6.178
Odcházel, byv poražen.COMPL (=lit. (He) was_leaving having_been defeated.)
Constructions of the type "seděl hlavu skloněnou". Expressions of the type "seděl hlavu skloněnou (=lit. (he) was_sitting (his) head bowed)" also belong to the type of predicative complements expressed by a transgressive. These are constructions in which a verb (usually expressing a person's activity) is followed by a transgressival construction with its governing transgressive (a transgressive of the verb mit (=to_have)) elided. In place of the omitted transgressive, a newly established node representing an empty verb is added to the tree: its t-lemma is \#EmpVerb and the functor is COMPL.

Examples:
Seděla hlavu \{\#EmpVerb.COMPL\} skloněnou (=lit. (She) was_sitting (her) head bowed.) Fig. 6.179
Jan tam stál \{\#EmpVerb.COMPL\} ruce v kapsách (=lit. Jan there was_standing (with) hands in (the) pockets.) Fig. 6.180

NB! In some cases of direct speech, there is a newly established node for an empty verb (\#EmpVerb.COMPL) which also represents a predicative complement in the form of a transgressive: namely a transgressive of the verb říci (=to_say)). For details see Section 8.3, "Direct speech".

Figure 6.178. Predicative complement expressed by a transgressive


Odešel, zpívaje si. (=lit. (He) left singing (to)_himself.)
Figure 6.179. Predicative complement expressed by a transgressive


Seděla hlavu skloněnou. (=lit. (She) was_sitting (her) head bowed.)

Figure 6.180. Predicative complement expressed by a transgressive


Jan tam stál ruce v kapsách. (=lit. Jan there was_standing (with) (his) hands in (the) pockets.)

### 6.10.2.3. Predicative complement expressed by an infinitive

Infinitives following verbs of sensory perception (the so-called Slavic accusative + infinitive) are usually represented as arguments, namely the Effect (Viděl Karla prijijit.EFF (=lit. (He) saw Karel come.)).

An infinitival predicative complement, i.e. a non-valency modification, is found in cases like the following:

Našel Karla ležet.COMPL na posteli (=lit. (He) found Karel lie on (his) bed.) Fig. 6.181
!!! No infinitive in the position of a predicative complement has occured in PDT. Apparently, there are not many cases in which an infinitive following a verb is considered both non-valency and having a dual dependency (taking part in a grammatical coreference relation, see Section 9.2.3, "Coreference with verbal modifications that have dual dependency"). It will be necessary to reconsider the issue in the future.

Figure 6.181. Predicative complement expressed by an infinitive


Našel Karla ležet na posteli. (=lit. (He) found Karel lie on (his )bed.)

### 6.10.3. Predicative complement expressed by a dependent clause

A predicative complement can also be expressed by a dependent clause introduced by the relative adverb $j a k(=h o w)$. The position of such a dependent clause is parallel to the position of an infinitive or adjective. The governing verb of the dependent clause is assigned the functor COMPL. The value of the compl.rf attribute is usually the identifier of the Patient of the verb in the governing clause.

The Actor (subject) of the governing verb has the t-lemma \#Cor: the controller is the Patient of the governing verb (see Section 9.2.3, "Coreference with verbal modifications that have dual dependency").

Examples:
Matka našla dité, jak spí.COMPL (=lit. Mother found (the) child - asleep.) Fig. 6.182
Kamera americké televizní stanice zabirá několik poslanců Federálniho shromáždění z komise 17. listopadu, jak otevírají.COMPL krabici dokumentů Státní bezpečnosti. (=lit. (The) camera (of) (an) American TV channel takes several members of Federal Assembly from (the) committee (for) 17th November as (they) are_opening (a) box (of) documents of State Police.)

Figure 6.182. Predicative complement expressed by a dependent clause


Matka našla dítě, jak spi. (=lit. Mother found (the) child how (he/she) sleeps.)

### 6.10.4. Layering of predicative complements

Predicative complements expressed by adjectives can be superimposed on predicative complements expressed by verb forms. Examples:

Našel vojáka ležet.COMPL v poli zabitého.COMPL (=lit. (He) found (the) soldier lie in (the) field dead.) Fig. 6.183

Často jsme ho našli, jak leží.COMPL zablácený.COMPL v posteli (=lit. Often - (we) him found as (he) was_lying muddy in (his) bed.)

In such constructions it is necessary to determine correctly which noun the adjectival predicative complement relates to and consequently to represent correctly the dependencies in the tectogrammatical tree.

Figure 6.183. Layering of predicative complements


Našel vojáka ležet v poli zabitého. (=lit. (They) found (the) soldier lie in (the) field dead.)

### 6.11. Ambiguous structures

This section deals with the description of annotation rules concerning constructions the representation of which is ambiguous from the perspective of a tectogrammatical tree. These are particularly :

- direction of the dependency relation with certain verbal adjuncts (see Section 6.11.1, "Dependency relations with certain verbal adjuncts"),
- dual function of a single modification (see Section 6.11.2, "Dual function of a single modification"),
- the question of the mutual relation of two or more locative/directional or temporal adjuncts (see Section 6.11.3, "Mutual relation of two or more locative/directional or temporal modifications"),
- relations within noun phrases (see Section 6.11.4, "Dependency relations in noun phrases (two nouns in the same form)").
!!! The annotation rules are insufficient in many cases and it is necessary to make them more precise in order to make the annotation more consistent. Also those cases in which not all semantic relations are represented need a new solution.


### 6.11.1. Dependency relations with certain verbal adjuncts

The dependency relations with certain adjuncts expressed by adverbs (see Section 6.11.1.2, "Ambiguous dependency relations with adjuncts expressed by adverbs") or prepositional phrases (see Section 6.11.1.1, "Ambiguous relations with adjuncts expressed by prepositional phrases") need not be unambiguous because the scope of the meaning of the adverbs and prepositional phrases can vary: they do not have to relate only to one modification within the sentence but they can relate to several modifications at the same time.

Only one dependency relation can be represented by an edge in the tree. Due to the fact that with adjuncts expressed by adverbs or prepositional phrases (unlike with predicative complements; see Section 6.10, "Predicative complement (dual dependency)") we often lack enough indications to define the relations unambiguously, we represent only one (basic) dependency relation of such modifications and we do not establish any special attributes to express the other possible semantic relations.

The basic annotation rule is as folllows:

- if a free modification (expressed by a prepositional phrase or adverb) modifies a verb, it is dependent on this verb regardless of any other semantic relations it may enter into.

The only exception are the cases of the so-called dual function (see Section 6.11.2, "Dual function of a single modification").

### 6.11.1.1. Ambiguous relations with adjuncts expressed by prepositional phrases

Free modifications (adjuncts) expressed by a prepositional phrase can specify a verbal event or state or they can modify a noun. We consider those structures ambiguous or problematic in which an adjunct expressed by a prepositional phrase modifies a verbal event/state and a noun at the same time, or those structures in which there are more interpretations possible (modification of a noun, verb, or more nouns simultaneously).

This section deals with the description of annotation rules for structures in which a modification expressed by a prepositional phrase unambiguously modifies a noun while other relations (particularly the relation to a verb) are less obvious. Examples:

Starý muž přišel votrhaném kabátě (=lit. (The) old man came in (a) shabby coat.).
Potkali Petra ve smokingu. (=lit. (They) met Petr in tuxedo)
Jeníček šel do lesa s Mařenkou. (=lit. Johnny went to (the) woods with Mary.)
Annotation varies depending on the fact whether the prepositional phrase and the noun occur in the surface structure of the sentence:

- in a contact position.
- in a distance position.

Contact position. In the constructions in which a noun and an adjunct expressed by a prepositional phrase are in a contact position, the adjunct depends on the node for the governing verb always when it is not obvious that this adjunct only modifies the noun it is in contact with.

In unambiguous cases (the prepositional phrase only modifies the noun) the node representing the prepositional phrase depends on the noun. Cf.:

- Do tramvaje nastoupil muž $\underline{\text { v }}$ otrhaném kabátě. (=lit. On (the) tram got (a) man in (a) shabby coat.)

The prepositional phrase $v$ (otrhaném) kabátě (=lit. in a (shabby) coat) only modifies the noun muž (=man). Cf. Fig. 6.184.

Other examples:
Lupič s pistolí přepadl prodavačku s tržbou v kufríku (=lit. (A) robber with (a) gun attacked (a) shop_assistant with sales in (a) briefcase.)

Přepadl prodavačku s tržbou v kufřiku (=lit. (He) robbed (a) shop_assistant with sales in (a) briefcase.) . (The shop assistant had the money in the briefcase.)
$\underline{\text { Tatinek }} \underline{s}$ maminkou šli do divadla (=lit. Daddy with mummy went to (the) theatre.)
Potkali muže ve smokingu (=lit. (They) met (a) man in (a) suit.) (The man was wearing the suit.)
On the other hand, in sentences in which the semantic relations are less obvious (there are two (or more) interpretations possible) the adjunct depends on the node for the governing verb. Cf.:

- Vyfotografoval Evu na pláži (=lit. (He) photographed Eve on (the) beach.).

It is not obvious who was on the beach (Eve, the photographer or both?). The node representing the prepositional phrase on the beach will depend on the node for the verb fotografovat (=to photograph).

Distance position. In those structures in which an adjunct modifies a verbal event or state and a noun at the same time, the adjunct always depends on the node for the governing verb. This holds particularly for cases in which the noun and the adjunct expressed by a prepositional phrase are in distance position (and in which the noun is not present in the surface structure of the sentence). We assume that a modification expressed by a prepositional phrase that modifies a noun but occurs in a distance position from it, in fact modifies both the noun and the verb. Cf.:

- Starý muž přišel $\underline{v}$ otrhanémkabátě (=lit. (The) old man in (a) shabby coat.)

The modification $v$ (otrhaném) kabátě (=in a (shabby) coat) modifies both the noun muž (=man) and the verb přijít (=to_come). In the tree such a modification depends on the verb. Cf. Fig. 6.185.

## Other examples:

Potkali Petra ve smokingu. (=lit. (They) met Peter wearing (a) suit.) (They were wearing the suit.)
Tatinek šel do divadla s maminkou (=lit. Dad went to (the) theatre with mum.)
Přepadl prodavačku s pistolí v ruce (=lit. (He) attacked (the) shop_assistant with (a) gun in (his) hand.) (He had the gun in his hand.)

Lupič prodavačku přepadl s tržbou v kufřiku (=lit. (A) robber (the) shop_assistant attacked with sales in (a) briefcase.)

In those structures that enable multiple interpretation of the semantic relations, the decision is made on the basis of the available context. If the context does not provide enough indications for an unambiguous solution, we take the adjunct to modify the verb. Examples:

Poslali ho $k$ babičce $\underline{v}$ dobrém rozmaru (=lit. (They) sent him to grandma in good mood.). (Who was in the good mood?)

Zahlédl ji při odchodu z divadla (=lit. (He) saw her - leaving - (the) theatre.) (Who was leaving the theatre?)

Figure 6.184. Prepositional phrase and noun in a contact position


Do tramvaje nastoupil muž v otrhaném kabátě. (=lit. On tram got on (a) man in (a) shabby coat)

Figure 6.185. Prepositional phrase and noun in a distance position


Starý muž přišel v otrhaném kabátě (=lit. (The) old man came in (a) shabby coat.)

### 6.11.1.2. Ambiguous dependency relations with adjuncts expressed by adverbs

The rule for free modifications expressed by adverbs is as follows: in those constructions in which the interpretation of the semantic relations is ambiguous, the modification depends on the governing verb. If the modification expressed by an adverb is in a distance position w.r.t. the noun it potentially relates to (or if the noun is not present in the surface structure of the sentence), it is always questionable whether this noun is directly modified by the adjunct. Cf.:

- Přecházel po pokoji neklidně (=lit.(He) was pacing - (the) room restlessly.).

The modification neklidně (=restlessly) is represented as dependent on the verb although it also modifies the Actor of the governing verb. Cf. Fig. 6.186.

Other examples:
Babička seděla shrbeně (=lit. Grandma was_sitting hunched.).
Pavel odešel schlíple (=lit. Pavel left broken.).
Pavel_schlíple odešel (=lit. Pavel in_(a)_broken_way left.).
Hanka běhala naboso (=lit. Hanka was_running barefoot.).
Bratr namaloval vajíčka modře/namodro (=lit. (My) brother dyed (the) eggs blue.).
Předseda mu to přinesl osobně (=lit. (The) chairman him it brought himself.).

Figure 6.186. Ambiguous relations with an adjunct expressed by an adverb


Přecházel po pokoji neklidně. (=lit. (He) was_pacing - (the) room restlessly.)

### 6.11.1.3. The semantic scope of modifications with the functors MOD and ATT

Free modifications (adjuncts) with the functors MOD (see Section 7.7.3, "MOD") and ATT (see Section 7.7.1, "ATT") show a behaviour similar to that of rhematizers (see Section 10.6, "Rhematizers"). The degree of probability or the expression of an attitude always affect a particular part of the utterance, a particular subtree. Cf.:

- Otec přijede asi.MOD zitra večer (=lit. Father will_come perhaps tomorrow evening.)
- Otec přijede zitra asi.MOD večer (=lit. Father will_come tomorrow perhaps in_(the)_evening.)
- Otec asi.MOD přijede zítra večer (=lit. Father might come tomorrow in_(the)_evening.)
- Zittra večer přijede otec a asi.MOD i matka (=lit. Tomorrow night will_come father and perhaps also mother.)

These differences have been represented in the tectogrammatical trees only to a limited extent so far. In those cases in which the governing verb is not part of the semantic scope of the modification with the functors MOD or ATT, the modification with the functor MOD or ATT depends on the effective root node of that subtree that is in its scope. In other cases this adjunct depends on the node for the governing verb and its scope is blurred.
!!! This is a temporary solution; in the future the modifications with the functors MOD and ATT will need annotation rules similar to those for rhematizers (see Section 10.6.2, "Basic guidelines regarding the position of rhematizers in tectogrammatical trees").

### 6.11.2. Dual function of a single modification

In those structures in which a modification has a dual (or multiple) function (i.e. it modifies several elements at the same time but it is expressed only once for stylistic or other reasons), such a modification depends on the node representing the lowest potentially modified element and it is assigned a functor that corresponds to its actual position. There is no explicit indication that the modification has a dual function. Cf.:

- Koupila jsem si pásek za sedmdesát korun (=lit. (I) bought - myself (a) belt for seventy crowns.).
= Koupila jsem si za sedmdesát korun .MEANS pásek za sedmdesát korun.RSTR (=lit. (I) bought - myself for seventy crowns (a) belt for seventy crowns.)

The modification za sedmdesát korun (=lit. for seventy crowns) modifies both the verb koupit (=to_buy) and the noun pásek (=belt). In the tree this modification is represented lower in the structure, i.e. as dependent on the noun pásek (=belt), and it is assigned the functor RSTR. Cf. Fig. 6.187.

- Koupil boty pro kluka (=lit. (He) bought shoes for (a) boy.).
= Koupil pro kluka.RSTR boty pro kluka.ADDR (=lit. (He) bought for (the) boy shoes for (a) boy.)
The modification pro kluka (=for a boy) modifies both the verb koupit (=to_buy) and the noun boty (=shoes). In the tree this modification is represented lower in the structure, i.e. as dependent on the noun boty (=shoes), and it is assigned the functor RSTR. The Addressee of the verb koupit (=to_buy) is optional. No new node for this Addressee will be added to the tree (see also Section 6.2.4.1, "General arguments and unspecified Actors").

It is necessary to distinguish modifications with a dual function and modifications without a dual function. Cf.:

- Koupila jsem si pásek za sedmdesát korun (jen za padesát) (=lit. (I) bought - myself (a) belt for seventy crowns (for only fifty -).
- Koupil boty pro kluka (a dal je své dceři) (=lit. (He) bought shoes for (a) boy (and gave them (to) his daughter)).

A modification with a dual function can represent a valency modification of one or both of its governing elements. In such a case it is also represented at the lowest possible position in the structure. If a valency modification is missing, then, a newly established node with the t-lemma substitute \#PersPron is added to the tree and the (textual) coreference relation to the modification present in the surface structure is marked in the tree (see also Section 9.3, "Textual coreference"). Cf.:

- Splatil dluhy pojiš̌tovně (=lit. (He) paid_off (his) debts (to) (the) insurance_company.).
$=$ Splatil pojištơně.ADDR dluhy pojiš̌tovně.ADDR (=lit. (He) paid_off (to) (the) insurance company (his) debts (to) (the) insurance_company.)

The modification pojištovně (=(to) (the) insurance_company) modifies both the verb splatit (=to pay_off) and the noun dluhy (=debts). In the tree it will be represented lower in the structure, i.e. as dependent on the node representing the noun dluhy (=debts). The missing Addressee of the verb splatit (=to_pay_off) is substituted by a newly established node with the t-lemma substitute \#PersPron and the (textual) coreference relation to the modification to the insurance company present in the surface structure is marked in the tree. Cf.: Fig. 6.188.

Figure 6.187. Dual function of a single modification


Koupila jsem si pásek za sedmdesát korun (=lit. (I) bought - myself (a) belt for seventy crowns.)

Figure 6.188. Dual function of a single modification


Splatil dluhy pojištovně (=lit. (He) paid_off (his) debts (to) (the) insurance_company.)
For details on a dual function of valency modifications of complex predicates see Section 6.9.3.4.1, "Dual function of a valency modification of the complex predicate".

### 6.11.3. Mutual relation of two or more locative/directional or temporal modifications

This subsection deals with the annotation rules for those ambiguous structures in which several adjacent modifications with the same function (usually locative or temporal modifications) enter (or do not enter) into the same semantic relations. Their mutual relation is not an easy issue. The following three cases can be found:

- two temporal or locative/directional modifications in apposition,
- one temporal or locative/directional modification dependent on another temporal or locative/directional modification (see Section 6.11.3.1, "A temporal or locative/directional modification dependent on another temporal or locative/directional modifcation"),
- several sister nodes with a temporal or locative/directional meaning (see Section 6.11.3.2, "Two sister modifications with temporal or locative/directional meaning").

Only the so-called loose connections (separated by a comma or by an appositional conjuction; see Section 6.6.2, "Coordination and apposition") are represented as apposition of several modifications. Examples:

Zůstal doma, v Krkonošich (=lit. (He) stayed at_home, in (the) Giant_Mountains.)
Other cases are considered either several sister modifications or cases in which one modification is modified by another modification.

### 6.11.3.1. A temporal or locative/directional modification dependent on another temporal or locative/directional modifcation

We represent the following cases as cases in which one temporal or locative/directional modification depends on another temporal or locative/directional modification:

- the second modification is in the genitive.

These are cases in which the second modification (temporal, locative/directional or another) has a genitive form. The second modification depends on the first modification and its functor is APP.

This concerns particularly those temporal expressions in which the specification of the day is followed by the month, year and so on but also other cases.

Examples:
Přijel ve čtvrtek 5. ledna .APP 1997 (=lit. (He) arrived on Thursday 5th January 1997.) Fig. 6.189
Stalo se to 4. ledna roku.APP 1935 (=lit. Happened - it on 4th January -1935.)
V lednu roku.APP 1945 byla krutý mráz (=lit. In January - 1945 was cruel (the) frost.)

## - expression of an extent.

These are the cases in which the first modification has the form of the so-called extent or temporal accusative (or by its prepositional variant) which is folled by a prepositional phrase. The accusative cannot occur alone in the sentence; it constitutes a single temporal or locative/directional modification together with the following prepositional phrase. The second modification is represented as dependent on the first one. These modifications have temporal, extent or locative/directional functors.

Examples:
Leží to dva kilometry.LOC od řeky.DIR1 (=lit. (It) is_located two kilometres from (the) river.) Fig. 6.190

Vždyt' jsi sotva hodinu.LOC cesty od Hrusic.DIR1 (=lit. - (you) are hardly one_hour far from Hrusice.)

Je to pět minut.LOC od pláǎze.DIR1 (=lit. (It) is five minutes from (the) beach.)
Je to kolem pěti minut.LOC od pláže.DIR1 (=lit. (It) is about five minutes from (the) beach.)
Leži to na dva kilometry. LOC od řeky.DIR1 (=lit. (It) is_located about two kilometers from (the) river.)

Oblékla se půl.TWHEN hodiny před začátkem.TWHEN představení (=lit. (She) got_dressed - half an hour before (the) beginning (of) (the) performance.)

Odjela dva měsice.TWHEN před porodem.TWHEN (=lit. (She) left two months before childbirth.)
Zůstaňte ležet dvě hodiny.THL po zákroku.TWHEN (=lit. Keep lying (for) two hours after (the) operation.)

Doběhl pět minut.TWHEN po odjezdu. TWHEN vlaku (=lit. (He) came five minutes after (the) departure (of) (the) train.)

- the second modification can be considered a valency modification of the first one.

These are cases in which one of the modifications is modified by the other. Also cases when the second modification is other than temporal or locative/directional and could be considered a valency modification of the first one belong here.

These constructions are parallel to those expressing an extent; the extent or temporal accusative is substituted by an adverb, however.

Examples:
Přijel brzy soon.TWHEN po Vánocich.TWHEN (=lit. (He) arrived soon after Christmas.) Fig. 6.191
Odehrálo se to daleko.LOC od Moskvy.DIR1 (=lit. Happened - (it) far from Moscow.)
Našel to hluboko.LOC pod povrchem.LOC (=lit. (He) found it deep under (the) surface.)
Pojedeme na západ (=západně).DIR3 od Prahy.DIR1 (=lit. (We) will_go - west (=westwards) from Prague.)

Figure 6.189. Mutual relation of two temporal modifications


Přijel ve čtvrtek 5. ledna 1997. (=lit. (He) arrived on Thursday 5th January.)

Figure 6.190. Mutual relation of two locative/directional modifications


Leží to dva kilometry od řeky. (=lit. (It) is_located two kilometers from (the) river.)
Figure 6.191. Mutual relation of two temporal modifications


Přijede brzy po Vánocich. (=lit. (He) will_come soon after Christmas.)

### 6.11.3.2. Two sister modifications with temporal or locative/directional meaning

If there are two (or more) temporal or locative/directional (or other) modifications present in the sentence at the same time and each of the modifications is relatively independent, they are represented as sister modifications dependent on the same governing node. Their word order can be changed without any change of meaning; any of the modifications can be omitted without any damage to the grammatical structure of the sentence. Both modifications usually relate to the same moment or to the same location, one of them is more general, the other one is more specific.

Examples:
Sejdeme se na Hlavním nádraží.LOC vhale.LOC (=lit. (We) shall_meet -at (the) Central Station in (the) entrance_hall.) Fig. 6.192

Lopata leží vzadu.LOC u plotu.LOC (=lit. (The) shovel is in_the_back by (the) fence.)
Sejdeme se vPraze. LOC na Václavském náměstí.LOC (=lit. (We) will_meet - in Prague in Wenceslas square.)

Přijeli v únoru.TWHEN v roce.TWHEN 1999 (=lit. (They) arrived in February 1999.) Fig. 6.193
Přijel 5. ledna.TWHEN ve 14,00.TWHEN (=lit. (He) arrived (on) 5th January at 2pm.) Fig. 6.194
Vloni.TWHEN v lednuTWHEN se konala conference. (=lit. Last_year in January - took_place (the) conference.)

Přijde zitra.TWHEN $k$ večeru.TWHEN (=lit. (He) will_come tomorrow toward (the) evening.)
Odešel brzy.TWHEN ráno.TWHEN (=lit. (He) left early (in) (the) morning.)
Figure 6.192. Mutual relation of two locative/directional modifications


Sejdeme se na Hlavním nádraží v hale. (=lit. (We) shall_meet - at (the) Central Station in (the) entrance_hall.)

Figure 6.193. Mutual relation of two temporal modifications


Přijeli v únoru v roce 1999. (=lit. (They) arrived in February in year 1999.)
Figure 6.194. Mutual relation of two temporal modifications


Přijel 5. ledna ve 14.00. (=lit. (He) arrived (on) 5th January at 2pm.)

### 6.11.3.3. Ambiguous and complicated cases

In some cases the mutual relations between the temporal or locative/directional modifications expressed by adverbs and prepositional phrases are ambiguous. There are often several possible interpretations.Therefore, it is necessary to consider the sentence in the context. Cf.:

- V únoru v roce 1948 jsme nebyli v republice (=lit. In February in - 1948 (we) - were_not in (the) republic.)
$=V$ únoru, a to v roce 1948 jsme nebyli v republice ( $=$ lit. In February and that in -1948 (we) were_not in (the) republic.)
$=$ V únoru, který byl v roce 1948, jsme nebyli v republice (=lit. In February that was in - 1948 (we) - were_not in (the) republic.)

The construction can be interpreted in the following way: the second modification specifies the first one, therefore, it depends on it. However, it is also possible to interpret the construction as two temporal sister modifications. It depends on the interpretation: if the interpretation is in February in 1948, there are two sister modifications represented in the construction; if the interpretation is in February that was in 1948 the second modification depends on the first one.

- Bydlív chaloupce $\underline{u}$ lesa (=lit. (He) lives in (a) little_cottage by (the) wood.).
$=$ Bydlí v chaloupce, a to u lesa (=lit. (He) lives in (a) little_cottage, and that_is by (the) wood.)
= Bydlí v chaloupce, která je u lesa (=lit. (He) lives in (a) little_cottage which is by (the) wood.)
The construction can be interpreted in the following way: the second locative modification specifies the first one. However, we can also interpret this case as two sister modifications with a locative meaning. It depends on the interpretation: if the interpretation is he lives in a little cottage, which is by the wood two sister modifications are represented in the construction; if the interpretation is in a little cottage that is located by the wood the second modification depends on the first one.

These examples differ from those described in Section 6.11.3.2, "Two sister modifications with temporal or locative/directional meaning" in that the word order is fixed. The order of the two modifications cannot be changed without the change in meaning. Cf.:

- Sejdeme se vhale na nádraží (=lit. (We) shall_meet - in (the) entrance_hall at (the) station.).
$=$ Sejdeme se v hale, která je na nádraži (=lit. (We) shall_meet - in (the) entrance_hall that is at (the) station.)
$=$ Sejdeme se v hale, a to na nádraží. (=lit. (We) shall_meet - in (the) entrance_hall, and that_is at (the) station.)

Two interpretations of the relations between the locative modifications are possible. The mutual relation of the two locative modifications can be interpreted in the following way: the modification that comes second in the sentence specifies the modification that comes first (cf. Fig. 6.195), or both modifications can be considered relatively independent and they can be represented as sister modifications.

- Sejdeme se na nádraží vhale. (=lit. (We) shall_meet - at (the) station in (the) entrance_hall.).
$=$ Sejdeme se na nádraží, a to v hale (=lit. (We) shall_meet - at (the) station, and that in (the) entrance_hall.)

The reversed word order makes only one interpretation possible. Therefore the two modifications are represented as sister nodes. This case is described in Section 6.11.3.2, "Two sister modifications with temporal or locative/directional meaning". Cf. Fig. 6.192.

Relations within groups of adverbial modifications are very complicated. In constructions of the types described above, the analysis depends on the annotator.

Examples of complicated temporal and locative/directional modifications:
Stalo se to včera ve čtyři hodiny odpoledne východního času. (=lit. Happened - it yesterday at 4 - pm eastern time.) Fig. 6.196

Přijeli v neděli dopoledne 3. září. (=lit. (They) arrived on Sunday (in) (the) morning 3rd September.).
Každý den při mši sv. $\underline{v}$ devět hodin ráno setkává se kněz se svými věřicimi. (=lit. Every day at (the) mass holy at nine -am meets - (a) priest - his believers.)

Vytvořili nové soubory $\underline{v}$ pátek večer a o vikendu. (=lit. (They) created new files on Friday night and at (the) weekend.)

## Figure 6.195. Mutual relation of two locative modifications



Sejdeme se v hale na Hlavním nádraží. (=lit. (We) shall_meet - in (the) entrance_hall at (the) Central Station.)

Figure 6.196. Mutual relation of two temporal modifications


Stalo se to včera ve 4 hodiny odpoledne východniho času. (=lit. Happened - it yesterday at 4-pm eastern time.)

### 6.11.4. Dependency relations in noun phrases (two nouns in the same form)

Ambiguous semantic relations can also be found between elements of certain noun phrases. Particularly those noun phrases that are formed by several nouns in the same form (the connection of which is not loose as in apposition) are problematic. Example:

Dej to panu premiérovi Zemanovi. (=lit. Give it (to) (the) prime_minister Zeman.)
na řece Vltavě ( $=$ lit. on (the) river Vltava)
k panu starostovi (=lit. to Mr. mayor)
o nebožtiku panu kormidelnikovi Landgermanovi (=lit. about (the) deceased Mr. helmsman Landgerman)
Exact annotation rules have been defined for combinations of two (or more) nouns in which one of the nouns is a proper noun.

Loose connections of nouns in the same form (separated by a comma or by an appositional conjunction) are represented as appositions (see Section 6.6.2, "Coordination and apposition"). For annotation rules of noun phrases with the so-called nominative of identity see Section 8.8.1, "Basic rules for the annotation of identifying expressions".

### 6.11.4.1. Combination of a common noun and a proper noun

The annotation of noun phrases in which there are two nouns in the same form (a common noun and a proper noun) differ depending on whether:

- the noun phrase is a name of a person.

If a noun phrase with two nouns represents a name of a single person, the node representing the proper noun is the governing node of the entire collocation. The node representing the common noun depends on the node for the proper noun and it has the functor RSTR. Cf.:

- předseda.RSTR Zeman (=lit. (the) chairman Zeman)

The noun phrase predseda Zeman (=lit. (the) chairman Zeman) consisting of the proper noun (Zeman) and the common noun (předseda (=chairman)), which is a name of a person, will be represented by two nodes. The common noun will be dependent on the proper noun and it will have the functor RSTR.

Other examples:
Dej to našemu řediteli .RSTR Novákovi (=lit.Give it (to) our director Novák). Fig. 6.197
Máme Zemana předsedu .RSTR a Zemana ministra.RSTR (=lit. (We) have Zeman, a chairman and Zeman, a minister)

Havlíček kritik.RSTR (=lit. Havliček (a) critic) (Havlićek-kritik is represented in the same way)
Combinations of more than two nouns. In noun phrases where there are more than two nouns referring to a person and in which one of the nouns is the name proper of the person, all the common nouns depend on the proper noun and their functor is RSTR. Cf.:

- Dej to panu. RSTR premiérovi .RSTR Zemanovi (=lit. Give it (to) Mr. prime_minister Zeman.)

In the noun phrase panu premiérovi Zemanovi (=lit. (to) Mr. prime_minister Zeman) consisting of the proper noun (Zeman) and two common nouns (pan (Mr.) and premier (=prime_minister )), which is a name of a person, the node representing the proper noun is the governing node. The nodes representing the common nouns always depend on the node representing the proper noun (they are sister nodes)) and their functor is RSTR.

Other examples:
o nebožtiku.RSTR panu.RSTR kormidelnikovi.RSTR Mr. Landgermanovi (=lit. about the deceased Mr. helmsman Landgerman)
paní.RSTR doktorka.RSTR Veselá (=lit. Mrs. doctor Veseláa)

## - the noun phrase is not a name of a person.

If a noun phrase is name of an animal, an inanimate object or some other phenomenon, the common noun is the governing node of the noun phrase. The node representing the proper noun depends on the common noun and its functor is RSTR. Cf.:

- Na řece Vltavě.RSTR jezdí parniky (=lit. On (the) river Vltava are_floating steamboats.)

The noun phrase na řece Vltavě (=lit. on (the) river Vltava) consisting of a proper noun (Vltava) and a common noun ( $\check{r}$ eka (=river)), which is not a name of a person, is represented by two nodes. The node representing the proper noun will be the dependent one and its functor will be RSTR. Cf. Fig. 6.198.

Another example:
do mésta Prahy.RSTR (=lit. to (the) city (of) Prague)

A noun phrase in the nominative. In the noun phrases that express names of persons, both parts have regular inflection. A combination of a common noun and a proper noun in the nominative is considered to be a case of two inflected nouns, not a case of the nominative of identity. In noun phrases that are names of animals, objects or other phenomena, the proper noun, on the other hand, has usually the form of the nominative of identity. If such a noun phrase is in the nominative, the proper noun has the functor ID (see Section 8.8.1, "Basic rules for the annotation of identifying expressions"). Compare:

- jedeme do Prahy.DIR3 (=lit. (we) are_going to Prague)
- jedeme do města.DIR3 Prahy.RSTR (=lit. (we) are_going to (the) city (of) Prague.)
- jedeme do města.DIR3 Groznyj.ID (=lit. (we) are_going to (the) city (of) Groznyj.)
- město .ACT Praha.ID bylo založeno už dávno (=lit. (the) city (of) Prague was founded long_time_ago.).
- Mám rád Čapka. PAT (=lit. (I) - like Čapek.)
- Mám rád spisovatele.RSTR Čapka.PAT (=lit. (I) - like (the) writer Čapek.)
- Spisovatel.RSTR Čapek.ACT je mým nejoblíbenějisím spisovatelem (=lit. (the) writer Čapek is my favourite writer.)

For annotation rules concerning the expressions consisting of more parts (e.g. Jan Maria Plojhar, Frýdek-Místek) see Section 8.8.2.1, "Specific rules for certain types of proper nouns".

Figure 6.197. More nouns in the same form


Dej to našemu řediteli Novákovi (=lit. Give it (to) our director Novák.)

Figure 6.198. More nouns in the same form

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Na řece Vltavě jezdí parniky. (=lit. On (the) river Vltava are_floating steamboats.)

### 6.11.4.2. Other noun phrases

The annotation of other types of noun phrases with the nouns in the same form (particularly those formed by common nouns) depends on the decision of the annotator. The context and the annotation rules for noun phrases with proper nouns described above are taken into consideration.

The node representing one of the inflected nouns is chosen to be the effective root node of the entire noun phrase. The other nodes depend on this effective root node as its modifications and their functor is RSTR .

Examples:
O nebožtíku panu kormidelnikovi se už nemluvilo.(=lit. About (the) deceased Mr. helmsman - any_more was_not_talked.)

Odnes to našemu panu starostovi (=lit. Take it (to) our mr. chairman).
žena-matka (=woman-mother)
tenista-důchodce (=lit. (a) tennis player-pensioner)

### 6.12. Ellipsis

The cases when the governing or dependent part of a modification is not present in the surface structure of the sentence but when it is, however, present in the meaning of the sentence are regarded as cases of ellipsis.

Types of ellipsis. We distinguish several types of ellipses in the tectogrammatical annotation. On the most general level, the following types of ellipsis are distinguished:

- textual ellipsis.

In the case of textual ellipsis, the lexical content of the omitted expression is always clear from the context and is (unambiguously) recoverable. The given modification was omitted since it had already occurred elsewhere in the text; it does not have to be repeated for the sentence to be fully understood.

- grammatical ellipsis.

Grammatical ellipsis is a term used for such instances of elision in which the elided expressions do not corefer (there is no coreferred node), or such instances in which certain expressions are (obligatorily) non-expressed in the surface structure of the sentence although they are necessarily present (at the tectogrammatical level) for grammatical and semantic reasons.

The following sections describe individual cases of ellipsis, depending on what kind of position is omitted. These are:

## - ellipsis of the governing element.

See Section 6.12.1, "Ellipsis of the governing element".

- ellipsis of a dependent element.

See Section 6.12.2, "Ellipsis of the dependent element".
The textual and grammatical ellipsis are distinguished for each type separately. A separate subsection is devoted to ellipsis (of dependent expressions) in paratactic structures, which forms a special case mainly due to the possibility of the coordinated expressions to have a single (shared) modifier (see Section 6.12.3, "Ellipsis and the principle of shared modification in paratactic structures").

Representing ellipsis in the tectogrammatical trees. There are the following ways to represent ellipsis:

- by adding a new(ly established) node into the structure, in essentially two ways:
- (newly established) node with a t-lemma substitute.

A new node is inserted into the tectogrammatical tree in the position of the omitted expression and one of the $t$-lemma substitutes is assigned to it (see Section 4.4, "T-lemma substitutes").

All the relevant attributes of the newly established node with the $t$-lemma substitute are filledin (e.g. functor, is_member, tfa).

This way of representing ellipsis is used for grammatical ellipsis of the governing element (see Section 6.12.1.1.2, "Grammatical ellipsis of the governing verb" a Section 6.12.1.2.2, "Grammatical ellipsis of the governing noun" and Section 6.12.1.3, "Ellipsis of the governing clause") and both the textual and grammatical ellipsis of a dependent element (see Section 6.12.2, "Ellipsis of the dependent element").

- copied node.

A new node, which is a copy of another node (representing an expression present in the surface form), is inserted into the tectogrammatical tree in the position on the omitted element. The original node does not necessarily have to be present in the same tectogrammatical tree, it is also possible to copy nodes from preceding (or following) trees.

The node is copied as a lexical unit represented especially by its $t$-lemma, its grammatemes and a valency frame. The values of the following attributes remain the same as in the original node (they do not change): t_lemma, a/lex.rf, val_frame.rf, is_name_of_person and grammatemes gender, aspect, iterativeness, negation, indeftype, numertype. The values of the rest of the attributes of the newly established node need to be checked and changed if necessary. The attribute values can either change or remain the same as the values of the original node.

This way of representing ellipsis is used for textual ellipsis of the governing element (see Section 6.12.1.1.1, "Textual ellipsis of the governing verb" and Section 6.12.1.2.1, "Textual ellipsis of the governing noun" below). Exceptionally, the copied node can be used for representing ellipsis of dependent elements (see Section 6.12.3.1, "Textual ellipsis of a non-obligatory modification in paratactic structures")
!!! No subsequent check of the grammateme values of the copied nodes have been carried out in PDT. The values of all the grammatemes of the copied nodes, which may in fact differ from the values of the original node, remained the same in most cases. E.g. the degcmp attribute of the copied comparative in comparative constructions is supposed to be different form the original node (see Section 8.4, "Constructions with the meaning of "comparison""); however, the data may not be quite consistent.
!!! Also the values of the attribute a/aux.rf of the copied nodes have been checked only partially. All the values of the copied nodes remained the same (and we suppose this is right) in those cases in which the governing node of the copied node has the same t-lemma as with the original node. On the other hand, we have tested that none of the copied nodes has more than one reference to a conjunction or preposition in its a/aux.rf attribute. Especially the references to auxiliary and modal verbs have remained unchecked. For more on the a/aux.rf attribute see Section 2.1, "Relation between the tectogrammatical level and the lower levels".

A newly established node differs from all other nodes by the value 1 filled in the attribute is_generated. See Table 6.7, "Values of the attribute is_generated".

Table 6.7. Values of the attribute is_generated
0 the node represents an element that was expressed in the surface form of the sentence.
a newly established node that has no counterpart in the surface form of the sentence
If no value is filled in the attribute is_generated, we assume the value 0 .

- by using a shared modifier of paratactically connected elements.

Ellipsis is particularly common in paratactic structures. However, in compliance with the principle of shared modification (see Section 6.6.1.1, "Shared modifier of paratactically connected elements"), often, no new node has to be inserted into the tectogrammatical tree in place of the omitted modification.

Shared modifiers are used for representing grammatical ellipsis (of a dependent modification) with paratactically connected elements (see Section 6.12.3, "Ellipsis and the principle of shared modification in paratactic structures" for details).

### 6.12.1. Ellipsis of the governing element

Ellipsis of the governing elementEllipsis of the governing element is such a case of ellipsis in which the surface structure of the sentence lacks the expression governing those dependent modifications or clauses that require one by definition.

Such an absent governing element is always inserted into the tectogrammatical tree.
This concerns particularly the following cases, described below in separate subsections:

- ellipsis of the governing verb (see Section 6.12.1.1, "Ellipsis of the governing verb"),
- ellipsis of the governing noun (see Section 6.12.1.2, "Ellipsis of the governing noun"),
- ellipsis of the governing clause (see Section 6.12.1.3, "Ellipsis of the governing clause"),
- ellipsis of the governing node (necessary for representing the meaning properly) with certain special constructions (see Section 6.12.1.4, "Ellipsis of the governing element with some special constructions").


### 6.12.1.1. Ellipsis of the governing verb

If a clause interpreted as verbal (for details see Section 6.4, "Verbal and non-verbal clauses") lacks its governing verb, the way of representing the ellipsis differs depending on whether it is a case of textual (see Section 6.12.1.1.1, "Textual ellipsis of the governing verb"), or grammatical ellipsis (see Section 6.12.1.1.2, "Grammatical ellipsis of the governing verb").

### 6.12.1.1.1. Textual ellipsis of the governing verb

In those cases in which it is clear (and possible to find in the text) which verb has been omitted in the surface structure of the sentence (i.e. in the cases of textual ellipsis), a new node is inserted into the structure in place of the missing verb, namely a copy of the node representing the same lexical unit as the omitted element.

Such a copied node for the governing verb is always assigned a valency frame. Insertion of non-expressed valency modification into the sentence follows the rules in Section 6.12.2, "Ellipsis of the dependent element".

Cf.:

- (Jirka navštívil Marii.) Honza Jiřinu (=lit. (George visited Mary.) John Henriette).
= (Jirka navštívil Marii.) Honza navštívil Jiřinu. (=lit. (George visited Mary.) John visited Hentriette.)

The governing verb navštivit (=to visit) is subject to textual ellipsis in the second sentence. The node representing the verb navstivit will be copied from the previous sentence (from the previous tectogrammatical tree) into the position of the elided verb. Cf. Fig. 6.199.

Another example:
Jirka prozradil, že on navštívil Marii a Honza \{ navštívit $\}$ Jiřinu. (=lit. George disclosed, that he visited Mary and John \{visited\} Henriette.) Fig. 6.200

Negation. It is necessary to pay attention to the negation of the original and copied nodes. The node for syntactic negation ( $t$ _lemma=\#Neg; viz Section 6.13, "Modality and negation") is not copied, but rather a newly established node for syntactic negation is inserted if necessary. Cf.:

- Pavel nepřinesl nic, Hanka čokoládu. (=lit. Paul brought nothing, Hanna chocolate.)
= Pavel nepřinesl nic, Hanka přinesla čokoládu. (=Paul brought nothing, Hanna brought chocolate.)
The governing verb přinést (=to bring) is subject to textual ellipsis in the second clause. The node representing the verb přinést (=to bring) will be copied from the previous clause (from the previous subtree) into the position of the elided verb. No node for syntactic negation will be inserted under the copied node.
- V sobotu pracovali všichni, ale v neděli nikdo. (=lit. On Saturday worked everyone, but on Sunday nobody.)
$=V$ sobotu pracovali všichni, ale v neděli nepracoval nikdo. (=lit. On Saturday worked everyone, but on Sunday not_worked nobody.)

The governing verb nepracovat (=not_to_work) is subject to textual ellipsis in the second clause. The node representing the verb pracovat ( $=$ to_work) will be copied from the previous clause (from
the previous subtree) into the position of the elided verb. A node representing syntactic negation will be inserted under the copied node.

Textual ellipsis of multi-word predicates. If a multi-verb predicate, represented by two nodes, is subject to textual ellipsis (see Section 6.9, "Multi-word predicates"), both nodes representing the multi-word predicate are copied into the position of the omitted element. Therefore:

- if a verbal phraseme is subject to textual ellipsis (see Section 6.8.2, "Verbal idioms"), both the node representing the governing part of the verbal phraseme and the node representing its dependent part (with the DPHR functor) are copied into relevant the position. For example:
- (Jirkovi běhá mráz po zádech.) Honzovi také. (=lit. (To_George runs frost over shoulders.) To_John too.)
= (Jirkovi běhá mráz po zádech.) Honzovi také běhá mráz po zádech. (=lit. (To_George runs frost over shoulders.) To_John also runs frost over shoulders.)

The governing verbal phraseme běhá mráz po zádech (=lit. runs frost over shoulders) is subject to textual ellipsis in the second sentence. Both the node representing the governing verb běhat (run) and the node representing the dependent part of the phraseme mráz po zádech (frost over shoulders), with the DPHR functor, will be copied into the relevant position.

- if a complex predicate is subject to textual ellipsis (see Section 6.9.3, "Complex predicates"), both the node representing the verbal part of the complex predicate and the node representing its nominal part (with the CPHR functor) are copied into the relevant position. For example:
- (Jirka má zájem studovat.) Honza také. (=lit. (George has interest to_study.) John too.)
= (Jirka má zájem studovat.) Honza má také zájem studovat. (=lit (George has interest to_study.) John has also interest to_study.)

The complex predicate mit zájem (to_have_interest) is subject to textual ellipsis in the second sentence. Both the node representing the governing verb mit and the node representing the nominal part of the phraseme plán (=plan) (with the CPHR functor) will be copied into the position of the omitted complex predicate.

- if a verbo-nominal predicate is subject to textual ellipsis (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)"), both the node representing the copula verb být (=to_be) and the node representing the non-verbal part of the verbo-nominal predicate (with the PAT functor) are copied into the relevant position in the tree. For example:
- (Jirka je veselý.) Honza také. (=lit. (George is jolly.) John too.)
$=$ (Jirka je veselý.) Honza je také veselý. (=lit. (George is jolly.) John is also jolly.)
The verbonominal predicate být veselý (=to_be jolly) is subject to textual ellipsis in the second sentence. Both the node representing the copula verb být (=to_be) and the node representing the non-verbal part of the verbonominal predicate vesely (=jolly) (with the PAT functor) will be copied into the position of the omitted verbonominal predicate in the tree .

NB! There are some exceptional cases (comparative constructions) where the nonverbal part of the verbonominal predicate is not copied, but rather a newly established node with t-lemma \#Some is inserted into the structure (for details see Section 8.4, "Constructions with the meaning of "comparison"").

NB! Due to the fact that we represent predicates like být veselý a štastný (=lit. to_be jolly and happy) as a single verbonominal predicate with its nonverbal parts coordinated, it is necessary to copy all the nodes if such a predicate is subject to textual ellipsis: i.e. to copy the node representing the copula být (=to_be), the node representing the root of the paratactic structure as well as the nodes representing the coordinated nonverbal parts.

- if a modal predicate represented by two nodes (see Section 6.9.1.1, "Modal predicates") is subject to textual ellipsis, both the node representing the modal verb and the node representing the infinitive of the lexical (full) verb (with the PAT functor) are copied into the relevant position in the tree. For example:
- (Jirka nemůže nepřijít) Honza také. (=lit. (George cannot not_to_come.) John too.)
= (Jirka nemůže nepřijít) Honza také nemůže nepřijít. (=lit. (George cannot not_to_come.) John also cannot not_to_come.)

The modal predicate nemůže nepřijít (=cannot not_to_come) is subject to textual ellipsis in the second sentence. Both the node representing the modal verb moci ( $=$ can ) and the node representing the infinitive prijít (=come) (with the PAT functor) will be copied into the position of the omitted modal predicate.

For more on modal predicates see Section 6.9.1.1, "Modal predicates".
!!! The analysis involving copying all the nodes representing the multi-word predicate has not been introduced for phase, quasi-phase and quasi-modal predicates. In those cases only the governing part is copied - if the predicate is subject to textual ellipsis - and the dependent part of the predicate is represented according to the rules in Section 6.12.2, "Ellipsis of the dependent element".

Textual ellipsis of the full verb with complex verb forms (the modal or auxiliary verb is not elided). Also those cases of ellipsis are considered textual ellipsis in which the full (lexical) verb is elided but the modal or auxiliary verb (forming a single predicate with it) stays in place. Cf.:

- (Budeš se učit?) Budu. (=lit. (Will you learn?) (I) will.)
$=$ (Budeš se učit?) Budu se učit. (lit. (=Will you learn?) (I) will REFL learn.)
The lexical verb učit se (=to_learn) is subject to textual ellipsis in the second sentence. The node representing the verb učit se (=to_learn) is copied from the previous sentence (from the previous tectogrammatical tree) into the relevant position. The whole predicate budu se učit (=I will learn) is represented by a single node (copied in this case). The meaning of the auxiliary is encoded in the values of the appropriate grammatemes (see Chapter 5, Complex nodes and grammatemes).
Cf. Fig. 6.201.
- (Měl bys už cvičit?) Měl bych. (=lit. (Should you already exercise?) (I) should -.)
$=$ (Měl bys už cvičit?) Měl bych cvičit. (=lit. (Should you already exercise?) (I) should - exercise.)
The lexical verb cvičit (=to_exercise) is subject to textual ellipsis in the second sentence. The node representing the verb cvičit (=to_exercise) is copied from the previous sentence (from the previous tectogrammatical tree) into the position of the elided verb. The whole prodicate mél bych cvičit ( $=$ I should exercise) is represented by a single node (copied in this case). The meanings of the modal and auxiliary verbs are represented by the grammateme values (see Chapter 5, Complex nodes and grammatemes).

Another example:
(Musiš ǔ̌ jít?) <Musim> \{jít\} (= Must (you) already go?) (I) must \{to_go\}) . Fig. 6.202

Figure 6.199. Textual ellipsis of the governing verb
$\circ$
$\vdots$
root


| Honza | Jirïna |
| :--- | :--- |
| c_ACT | f_PAT |
| n.denot | n.denot |
| anim.sg | fem.sg |
| person_name | person_name |

(Jirka navštívil Marii.) Honza Jiřinu. (=lit. (George visited Mary.) John Henriette.)
Figure 6.200. Textual ellipsis of the governing verb


Jirka prozradil, že on navštivil Marii a Honza Jiřinu. (=lit. George disclosed, that he visited Mary and John Henriette.)

Figure 6.201. Textual ellipsis of the governing verb

(Budeš se učit?) Budu. (=lit. (Will you learn?) (I) will.)
Figure 6.202. Textual ellipsis of the governing verb

(Musiš už jít?) Musím. (=lit. (Must (you) already go?) (I) must.)
NB! We only copy the node representing the governing verb. The nodes representing its dependent modifications are not copied, they are represented by creating new nodes with t-lemma substitutes according to the rules stated here in Section 6.12.2, "Ellipsis of the dependent element".

Omitted dependent modifications of the governing verb are only copied if they are themselves governing nodes (and their dependent nodes are not elided). Cf.:

- (Petr opravuje auto.) Jirka také. (=lit. (Peter repairs car.) George too.)
$=$ (Petr opravuje dědovo auto.) Jirka také opravuje auto. (=lit. (Peter repairs grandfather's car.) George also repairs a_car.)

The governing verb opravovat (=to_repair) is subject to textual ellipsis in the second sentence. The node representing the verb opravovat (=to_repair) is copied from the previous sentence (from the previous tectogrammatical tree) into the appropriate position. The omitted Patient of the verb
(auto (=car)) is not copied, instead, a newly established node with the t-lemma substitute \#PersPron is inserted into the structure (and its coreferential relation to the node representing the expressed Patient in the previous sentence is marked in the tree).

- (Petr opravuje dědovo auto.) Jirka otcovo. (=lit. (Peter repairs grandather's car.) George father's.)
$=$ (Petr opravuje dědovo auto.) Jirka opravuje otcovo auto. (=lit. (Peter repairs grandfather's car.) George repairs father's car.)

The governing verb opravovat (=to_repair) is subject to textual ellipsis in the second sentence. The node representing the verb opravovat (=to_repair) will be copied from the previous sentence (from the previous tectogrammatical tree) into the appropriate position. The elided Patient (auto ( $=c a r$ ) ) will also be copied, as it simultaneously serves as the governing node of the expressed modification otcovo (=father's).

- (Petr má plán studovat matematiku.) Jirka také. (=lit. (Peter has a_plan to_study mathematics.) George too.)
= (Petr má plán studovat matematiku.) Jirka má také plán studovat matematiku. (=lit. (Peter has a plan to_study mathematics.) George has also a_plan to_study mathematics.)

The complex predicate mit plán (=to have a plan) is subject to textual ellipsis in the second sentence. Both the node representing the governing verb mit (=to have) and the node representing the nominal part of the phraseme plán (=plan) (with the CPHR functor) will be copied into the position of the omitted complex predicate. The omitted Patient of the nominal part of the predicate (studovat (=to study)) will not be copied, instead, a newly established node with the t-lemma substitute \# PersPron is inserted (and its coreferential relation to the node representing the expressed Patient in the previous sentence is marked in the tree).

- (Petr má plán studovat matematiku /v Brně.) Jirka fyziku /v Praze. (=lit. (Peter has a plan to_study mathematics / in Brno.) George physics / in Prague.)
= (Petr má plán studovat matematiku.) Jirka má plán studovat fyziku /v Praze. (=lit. (Peter has a plan to_study mathematics.) George has a_plan to_study physics / in Prague.)

The complex predicate mit plán (=to have a plan) is subject to textual ellipsis in the second sentence. Both the node representing the governing verb mit (=to have) and the node representing the nominal part of the phraseme plán ( $=$ plan) (with the CPHR functor) will be copied into the position of the omitted complex predicate. The omitted Patient of the nominal part of the predicate (studovat (=to study)) will also be copied, as it simultaneously serves as the governing node of the expressed modification fyzika /v Praze (=physics / in Prague).

### 6.12.1.1.2. Grammatical ellipsis of the governing verb

Grammatical ellipsis of the governing verb comprises all those cases in which the verb is not expressed in a clause interpreted as verbal (see Section 6.4, "Verbal and non-verbal clauses") and, at the same time, it is not textual ellipsis of the governing verb, i.e. the verb cannot be recovered from the context (these are constructions with the so-called empty verb; see Section 6.4.1, "Verbal clauses").

In the case of grammatical ellipsis of the governing verb, a newly established node with the t -lemma substitute \#EmpVerb (empty verb) is inserted into the appropriate position. Cf.:

- Nač \{\#EmpVerb.PRED\} ten spěch? (=lit. What_for \{\#EmpVerb\} the haste?)

The clause Nač ten spěch? (=lit. What_for the haste?) is interpreted as verbal. If it is not a case of textual ellipsis, the position of the absent governing predicate will be filled in by a node with the t-lemma substitute \#EmpVerb. Cf. Fig. 6.203.

No valency frame is assigned to the empty verb. Nodes dependent on the empty verb follow the rules in Section 6.12.2, "Ellipsis of the dependent element".

More examples:
Zeptal se: Nač \{\#EmpVerb.PAT\} ten spěch? (=lit. (He) asked REFL: What_for \{\#EmpVerb\} the haste?) Fig. 6.204
\{\#EmpVerb.PRED\} Samozřejmě. (=lit. \{\#EmpVerb\} Of_course.) Fig. 6.205
Figure 6.203. Grammatical ellipsis of the governing verb


Nač ten spěch? (=lit. What_for the haste?)

Figure 6.204. Grammatical ellipsis of the governing verb


Zeptal se: Nač ten spěch? (=lit. (He) asked REFL: What_for the haste?)
Figure 6.205. Grammatical ellipsis of the governing verb


Samozřejmě. (=lit. Of_course.)
Grammatical ellipsis of the governing verb - special cases. The empty verb is also used in the following cases:

- transgressive constructions - with the transgressive omitted - of the type "seděl hlavu skloněnou (=lit. (he) was_sitting (his) head bowed)".

For details see Section 6.10.2.2, "Predicative complement expressed by a transgressive (gerund)".

- the empty verb as the governing node of a subtree representing direct speech.

A node for the empty verb represents the non-expressed transgressive or infinitive of the verb of saying introducing the direct speech.

For details see Section 8.3.1.1.1, "Specific constructions in which direct speech is represented as an argument of the verb".

- the empty verb as the effective root of the direct speech consisting only of a vocative or interjectional clause.

For details see Section 8.3, "Direct speech".

### 6.12.1.2. Ellipsis of the governing noun

If adjectival modifications lack their governing noun in the surface structure, a new node for the governing noun is always inserted into the tectogrammatical tree structure. The annotation differs depending on whether it is textual (see Section 6.12.1.2.1, "Textual ellipsis of the governing noun") or grammatical ellipsis (see Section 6.12.1.2.2, "Grammatical ellipsis of the governing noun").

For a discussion on the distinction between syntactic (semantic) nouns and syntactic (semantic) adjectives, see Section 8.1, "Noun vs. adjective".

The following cases are not considered to be ellipsis of the governing noun: the adjective is:

- in the Patient or Effect position and it agrees with another valency modification (this is a case of a predicative complement-like position):

Examples:
Zůstal spokojený.PAT (=lit. (He) remained content.)
Pokládali ho za mrtvého.EFF (=lit. (They) considered him for dead.)

- in the position of the non-verbal part of a verbonominal predicate (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)"):

Example:
To je hloupé.PAT (=It is silly.)

- in the position of a predicative complement (COMPL; see Section 6.10, "Predicative complement (dual dependency)").

Example:
Pavel spí jako zabitý.COMPL (=lit. Paul sleeps like killed.)

The node for the governing noun for syntactic adjectives in these positions is not inserted to the tectogrammatical tree.

Exception: An exception are those cases in which a position from the list above is occupied by two (or more) adjectives that modify the same noun (in a recursive fashion). Then the node representing the governing noun is inserted into the tectogrammatical tree. For example:

- Jediné možné je konsensuální řešení. (=lit. Only possible is consensual solution.)
= Jediné možné řešeníje konsensuální řešeni. (=lit. Only possible solution is consensual solution.)
- Olomoucká kolekce grafiky je třetí největší u nás. (=lit. Olomouc collection of_graphics is the_third largest in our_country.)
= Olomoucká kolekce grafiky je třetí největší kolekce u nás. (=lit. Olomouc collection of _graphics is the_third largest collection in our_country.)
- Olomoucká kolekce grafiky zůstane třetí největší u nás. (=lit. Olomouc collection of graphics will_remain the_third largest in our_country.)
= Olomoucká kolekce grafiky zůstane třetí největši kolekcí u nás. (=Olomouc collection of_graphics will_remain the_third largest collection in our_country.)


### 6.12.1.2.1. Textual ellipsis of the governing noun

If it is clear (and possible to find in the text) which noun has been omitted in the surface structure of the sentence (i.e. it is a case of textual ellipsis), a copy of the node representing the same lexical unit as the omitted element is inserted into the appropriate position.

## Cf.:

- Modré pantofle jsou maminky, zelené jsou bratrovy. (=lit. Blue slippers are mother's, green are brother's.)
$=$ Modré pantofle jsou maminky, zelené pantofle jsou bratrovy. (=lit. Blue slippers are mother's, green slippers are brother's )

The noun pantofle (=slippers), governing the expressed adjective zeleny (=green), is subject to textual ellipsis in the second clause. The node representing the noun pantofle (=slippers) is copied from the previous text (from the previous subtree) into the appropriate position. Cf. Fig. 6.206.

Another example:
nejlepši $\{$ student $\}$ ze studenti̊ (=lit. best \{student\} of students) Fig. 6.207

Figure 6.206. Textual ellipsis of the governing noun


Modré pantofle jsou maminky, zelené bratrovy. (=Blue slippers are mother's, green borother's.)

## Figure 6.207. Textual ellipsis of the governing noun


nejlepší ze studentů (=lit. best of students)
Textual ellipsis of the governing noun in constituent coordination. Ellipsis of the noun governing a syntactic adjective also includes cases of ellipsis in constituent coordination (parataxis of sentence parts; see Section 6.6.1.2, "Parataxis of sentence parts, parataxis of clauses and mixed parataxis").

These are the cases in which two or more entities referred to by the same noun are in coordination (or paratactic structure) but the noun is expressed only once.

However, it is necessary to consider such cases carefully, not to misjudge the cases in which in fact only one entity is modified by two or more modifiers - it is crucial that there be two or more different entities. Then, a copy of the expressed noun is inserted into the subtree representing the conjunct with the ellipsis. Cf.:

- modrý a červený inkoust (=lit. blue and red ink)
$=$ modrý inkoust a červený inkoust. (=blue ink and red ink)
The noun inkoust (=ink) governing the expressed adjective modry (=blue) is subject to textual ellipsis (and these are two different objects, not just one). The node representing the expressed noun inkoust (=ink) is copied into the appropriate position.

The same applies to those cases when the modified noun is in plural, i.e:

- modré a červené inkousty (=lit. blue and red inks)
$=$ modré inkousty a červené inkousty. (=blue inks and red inks.)
More examples:
červené $\{$ vino $\}$ a bilé víno (=red \{wine\} and white wine) Fig. 6.208
střední \{Evropa\} a východní Evropa (=lit. Central \{Europe\} and Eastern Europe)
ministerstva práce a sociálnich věcí a \{ministerstvo\} zdravotnictví (=lit. ministries of_labour and social affairs and \{ministry\} of_health)

Where the semantics is ambiguous, we prefer the simpler structure: the paratactic structure is represented in such a way as if there was only one entity; the coordination of adjectives depends on the node representing the expressed noun; e.g.:
staří a nemocní lidé (=lit. old and ill people) Fig. 6.209
obchody s dámskou \{konfekce\} a pánskou konfekcí (=lit. shops with female \{confection\} and male confection)

Figure 6.208. Textual ellipsis of the governing noun in constituent coordination


Koupil červené a bilé vino. (=lit. (He) bought red and white wine.)

Figure 6.209. Constituent coordination in which the simpler structure is preferred

staří a nemocní lidé (=lit. old and ill people)

### 6.12.1.2.2. Grammatical ellipsis of the governing noun

If the missing governing noun is not clearly recoverable from the context (grammatical ellipsis), the ellipsis is represented by a newly established node with the t-lemma substitute \#EmpNoun. Cf.:

- Přišli jen \{\#EmpNoun.ACT\} mladší. (=lit. Came only \{\#EmpNoun\} younger.)

The noun governing the expressed adjective mladši (=younger) is not expressed in the clause. A newly established node with the t-lemma substitute \#EmpNoun will be inserted into the appropriate position (if it is not a case of textual ellipsis in fact). Cf. Fig. 6.210.

Another example:
Uvolněte mista \{\#EmpNoun.ACT\} starším. (=lit. Free seats \{\#EmpNoun\} for_older.)

Figure 6.210. Grammatical ellipsis of the governing noun


Přišli jen mladši. (=lit. Came only younger)

### 6.12.1.3. Ellipsis of the governing clause

If a clause interpreted as dependent (see Section 6.4, "Verbal and non-verbal clauses" and Section 6.5, "Dependent verbal clauses") is not expressed in the surface form of the sentence, a new node representing its governing clause is always inserted into the tectogrammatical tree. The annotation differs depending on whether it is a case of textual or grammatical ellipsis and whether the dependent clause is a relative, content or adverbial clause.

NB! Also those cases of dependent clauses are included in this type of ellipsis, which are regularly used alone.

For details on content, adverbial and relative clauses see Section 6.5, "Dependent verbal clauses".
Ellipsis of the clause governing a content or adverbial dependent clause. Ellipsis of the clause governing a content or adverbial dependent clause is represented in a similar way as ellipsis of the governing verb. A newly established node is inserted into the position of the governing node of the dependent clause, following the rules in Section 6.12.1.1, "Ellipsis of the governing verb" (the node is either a copy of a verb from the preceding or following sentences, or, if it is not a case of textual ellipsis, it has the t-lemma substitute \#EmpVerb). The effective root of the dependent clause is assigned a functor corresponding to the mening of the subordinating conjunction.

Cf.:

- Co $\{\#$ EmpVerb.PRED $\} \leq k d y z ̌>n a r a z i ́ . C O N D ~ n a ~ p a d e ̌ l e k ? ~(=l i t . ~ W h a t ~\{\# E m p V e r b\} ~ i f ~(h e) ~ e n c o u n-~$ ters to a_counterfeit?)

The clause governing the dependent conditional clause is absent. Therefore, a new node with the t-lemma substitute \#EmpVerb is inserted into the position of the node governing the effective root of the dependent clause.

More examples:
(Neodešla. (=lit. (She) did_not_leave.))
\{odejít (=to_leave).PRED\} $\leq$ Protože $>$ by to nestihla.CAUS (=lit. Because (she) would it not_make.) Fig. 6.211
(Nebudu se s tebou o tom bavit. (=lit. (I) will_not myself with you about it talk.))
\{bavit.PRED (=talk) \} Aspoň $\leq$ pokud $>$ budeš.COND takový. (=lit. At_least if (you) will_be like_that.)
A co \{ stát_se.PRED\} $\leq k d y b y>$ Maastricht v neděli neprošel.COND ? (=lit. And what \{to_happen\} if Maastricht on Sunday would_not pass?) (Evropa s úlevou vitá výsledek galského referenda, pro samé ulehčení si však zapominá zodpovědět důležitou otázku. Co by se stalo, kdyby ve Francii Maastricht neprošel?) (=lit. Europe with relief welcomes the_result of_Gaelic referendum, for all the_relief REFL however forgets to_answer an_important question. What would REFL happen, if in France Maastricht would_not pass?))

Ellipsis of the clause governing a relative (dependent) clause. Ellipsis of the clause governing a relative clause is represented in a similar way as ellipsis of the governing noun. A newly established node is inserted into the position of the governing node of the dependent clause (i.e. its effective root node), following the rules in Section 6.12.1.2, "Ellipsis of the governing noun" (the node is either a copy of a noun from the preceding or following sentences, or, if it is not a case of textual ellipsis, it has the t-lemma substitute \#EmpNoun). The effective root of the dependent clause is assigned the RSTR functor.

Example:
(Čtu všechny knihy. (=I read all books.))
\{kniha.DENOM (=book)\} Které jsou.RSTR dobrodružné. (=lit. Which are adventurous.) Fig. 6.212
NB! Ellipsis of the clause governing a relative clause can cooccur with ellipsis of the governing verb. In such cases, both the node for the governing noun and the node for the governing verb are inserted into the tectogrammatical tree. Cf.:

- Přijde o možnost získávat nesrovnatelně vyšši úroky, než jakými jsou úročeny srovnatelné vklady ostatnich klientì. (=lit. (He) will_lose - opportunity to_gain incomparably higher interests, than by_which are charged comparable investments (of) other clients.)
= Přijde o možnost získávat nesrovnatelně vyšši úroky, než jsou úroky, jakými jsou úročeny srovnatelné vklady ostatních klientů. (=lit. (He) will_lose - opportunity to_gain incomparably higher interests, than are interests, by_which are charged comparable investments (of) other clients.)

A new node with the $t$-lemma substitute \#EmpVerb will be inserted into the structure in the position of the governing verb of the (dependent) comparative clause (functor=CPR) ; this is not a case of textual ellipsis. At the same time, a copy of the node for the expressed noun úroky (=interests) will inserted into the position of the governing noun of the relative clause. The copied node will be assigned the ACT functor and it will depend on the inserted empty verb node.

Figure 6.211. Ellipsis of the clause governing an adverbial clause

(Neodešla.) Protože by to nestihla. (=(lit. (She) did_not_leave.) Beacause (she) would it not_make.)
Figure 6.212. Ellipsis of the governing clause to the relative dependent clause

(Čtu všechny knihy). Které jsou dobrodružné. (=(lit. (I) read all books). Which are adventurous.)

### 6.12.1.4. Ellipsis of the governing element with some special constructions

With certain more complex structures, some modifications always have to be present at the tectogrammatical level (for semantic reasons), whether they are expressed in the surface structure or not (this is a case of grammatical ellipsis). Hence, if such a modification is not present in the surface structure of the sentence, a newly established node with a t-lemma substitute is inserted into the tectogrammatical tree in its place. This concerns the following cases, which are described in more detail in separate sections:

- ellipsis of the governing node in comparative constructions (a new node with the $t$-lemma substitute \#Equal is inserted; see Section 8.4, "Constructions with the meaning of "comparison""),
- ellipsis of the governing node in constructions with the meaning of a restriction (a new node with the t-lemma substitute \#Total is inserted; see Section 8.6.1, "Meaning of "restriction""),
- ellipsis of the governing node in constructions with consecutive clauses (a new node with the t lemma substitute \#AsMuch is inserted; see Section 8.7, "Constructions with a dependent consecutive clause").
- insertion of a node with the t-lemma substitute \# Idph in identifying expressions (see Section 8.8, "Identifying expressions").

Some related issues:

- insertion of a node with the t-lemma substitute \#Forn in foreign-language expressions (see Section 8.9, "Foreign-language expressions").
- insertion of a node with the t-lemma substitute \#Separ in paratactic structures (for more see Section 6.6, "Parataxis").


### 6.12.2. Ellipsis of the dependent element

Ellipsis of the dependent element is such a case of ellipsis in which a dependent modification is missing from the surface form of the sentence, which is, however, present in the meaning of the sentence. For the most part, we only represent ellipsis of obligatory valency modifications (see Section 6.12.2.1, "Ellipsis of an obligatory modification"). Ellipsis of optional modifications is represented only in exceptional cases (see Section 6.12.2.2, "Ellipsis of a non-obligatory modification").

The present section describes the general cases of ellipsis of the dependent element, in which the omitted modification cannot be represented as a shared modifier (of paratactically connected elements). Ellipsis in paratactic structures is described separately in Section 6.12.3, "Ellipsis and the principle of shared modification in paratactic structures".

### 6.12.2.1. Ellipsis of an obligatory modification

Ellipsis of an obligatory modification is such a case of ellipsis in which an obligatory valency modification is not present in the surface form of the sentence.

Nodes representing words with valency (verbs, nouns, adjectives and adverbs, see Section 6.2, "Valency"), including copied nodes (see Section 6.12.1, "Ellipsis of the governing element"), are assigned a valency frame: the obligatory modifications of the given word (i.e. those included in its valency frame) are, then, always represented by a node in the tectogrammatical tree. Non-expressed obligatory modifications are represented by newly established nodes with appropriate $t$-lemma substitutes.

For details see Section 6.2.4, "Representing valency in the tectogrammatical trees".
!!! For details on valency as represented in PDT see Section 6.2.4, "Representing valency in the tectogrammatical trees".

The annotation distinguishes different instances of ellipsis of an obligatory modification by different t-lemma substitutes. Also in this case, textual and grammatical ellipsis are represented in a different way.

## Ellipsis of an obligatory modification is not represented in the following cases:

- the governing node has a t-lemma substitute.

If, for example, a node with the t-lemma \#PersPron stands in a place of a verb (the coreferred element is the governing verb of a clause, for example), no nodes for the (non-expressed) valency modifications of the substituted verb are inserted under this node.

The same holds for nodes with the t-lemma substitutes \#EmpVerb or \#EmpNoun.
Exception: A node representing an empty verb (node with t-lemma \#EmpVerb) can only get a new dependent node (representing an expression unexpressed in the surface structure of the sentence) in order to capture possible grammatical coreferential relations (see Section 9.2, "Grammatical coreference"), or in order to indicate the second dependency of a possible complement (see Section 6.10, "Predicative complement (dual dependency)").

Optional modifications. If an optional modification is not expressed in the surface form of the sentence, we take its absence to be a result of its optionality and thus do not represent the ellipsis. Non-expressed optional modifications are not assigned a node in the tectogrammatical tree (for more on this see Section 6.2.4.1, "General arguments and unspecified Actors").

Exception: A new node for an optional modification (non-expressed in the surface structure of the sentence) is only added into the tectogrammatical tree if it is necessary for representing grammatical coreference relations properly (see Section 9.2, "Grammatical coreference"), or for representing the second dependency with predicative complements (see Section 6.10, "Predicative complement (dual dependency)"). The omitted optional modification can also be represented as a shared modifier in paratactic structures (see Section 6.12.3.1, "Textual ellipsis of a non-obligatory modification in paratactic structures").

### 6.12.2.1.1. Textual ellipsis of an obligatory argument (the t-lemma substitutes \#PersPron, \#Cor, \#QCor a \#Rcp)

Textual ellipsis of an obligatory argument comprises such cases in which the coreferred element of the omitted modification can be straightforwardly identified with the help of the preceding or following context.

The t-lemma of the newly established node (for the omitted valency modifications) reflects the type of coreference (textual and grammatical coreference; see Chapter 9, Coreference) and also signals the particular type of elision:

## - textual ellipsis of an argument not entering into grammatical coreference relations.

A newly established node for an argument, subject to textual ellipsis, is assigned the t-lemma \#PersPron. If this node does not represent a 1 st or 2 nd person pronoun, its textual coreference is indicated. See Section 9.3, "Textual coreference".

A node with the t-lemma substitute \#PersPron is also used for representing the non-expressed (null) subject (of the governing verb) of the clause - if it is not a case of the unspecified Actor ( $t$ _lemma=\#Unsp; viz Section 6.2.4.1, "General arguments and unspecified Actors").

What is typical for this type of ellipsis is that it is possible to express the omitted modifications, e.g. by the pronoun on or ten.

Cf.:

- (Firma méla doručit zboží zákaznikkovi.) Doručení \{\#PersPron.ACT\} \{\#PersPron.PAT\} \{\#PersPron.ADDR\} se však neuskutečnilo. (=lit. (The_company was_to deliver the_goods to_the_customer.) The_delivery \{\#PersPron\} \{\#PersPron\} REFL however did_not_happen.)

It is clear from the context, that all the obligatory arguments of the noun doručeni (=delivery) are instances of textual ellipses (Actor = firma (=company), Patient = zboži (=goods), Addressee = zákaznik (=customer)). For each of these position, a newly established node with t-lemma substitute \#PersPron and appropriate functor will be inserted into the tectogrammatical tree.

- \{\#PersPron.ACT\} Jsizlý. (=lit. (You) are mean.)

A newly established node with with t-lemma substitute \#PersPron and appropriate functor is inserted into the tectogrammatical tree in the position of the non-expressed subject.

- \{\#PersPron.PAT\} Byl pochválen. (=lit. (He) was praised.)

A newly established node with with t-lemma substitute \#PersPron and appropriate functor is inserted into the tectogrammatical tree in the position of the non-expressed (null) subject.

More examples:
(Zabalil prodavač už tu knihu?) Zabalil \{\# PersPron.ACT\} \{\#PersPron.PAT\} (=lit. (Did_pack the_shop_assistant already the book?) (He) packed.) Fig. 6.213
(Vedouci tu dnes neni.) Odjel na konferenci \{\#PersPron.ACT\} (=lit. (The_boss here today is_not.) (He) left for a_conference.)

NB! A node with the t-lemma substitute \#PersPron is used in cases of textual ellipsis (i.e. where there is no grammatical coreference) no matter what the form of the omitted argument is; i.e. not only in the positions where it could be replaced by a personal or possesive pronoun.

NB! The t-lemma \#PersPron is a t-lemma substitute used also for representing all expressed personal and possesive pronouns (see Section 4.2, "The relation between a node's t -lemma and m lemma and between its t-lemma and word form").
!!! In the future, it will be necessary to reserve the $t$-lemma \# PersPron for representing expressed as well as non-expressed personal and possesive pronouns and to introduce a new t-lemma for other types of omitted obligatory arguments.

- textual ellipsis of an argument entering into a control relation.

The newly established node for the omitted argument participating in a control relation is assigned the t-lemma \#Cor.

Example:
Kolega má zájem \{\#Cor.ACT\} učit se španělsky. (=lit. Colleague has interest \{\#Cor\} to_learn REFL Spanish.)

For more on control see Section 9.2.4, "Control".

- textual ellipsis of an argument entering into a quasi-control relation.

The newly established node for the omitted argument participating in a quasi-control relation is assigned the t-lemma \#QCor.

Example:

Kolega má \{\#QCor.ACT\} zájem učit se španělsky. (=lit. Colleague has \{\#QCor\} interest to_learn REFL Spanish.)

For more on quasi-control see Section 9.2.5, "Quasi-control" and Section 6.9.3.4.2, "Sharing of valency modifications between the verbal and nominal components (quasi-control)".

- textual ellipsis of an argument entering into a reciprocal relation.

The newly established node for the omitted argument participating in a reciprocal relation is assigned the t-lemma \#Rcp.

Example:
Otec a matka se každý večer hádají \{\#Rcp.ADDR \} . (=lit. Father and mother REFL every evening have_fight \{\#Rcp\}.)

For more on reciprocity see Section 9.2.6, "Coreference in constructions with reciprocity" and Section 6.2.4.2, "Reciprocity".

Figure 6.213. Textual ellipsis of an obligatory argument

(Zabalil prodavač už tu knihu?) Zabalil. (=lit. Has the shop assistant already wrapped the book? lit. (He) wrapped.)

### 6.12.2.1.2. Grammatical ellipsis of an obligatory argument (t-lemma substitutes \#Gen a \#Unsp)

Grammatical ellipsis of an obligatory argument comprises such cases in which the coreferred element of the omitted modification cannot be clearly identified (with the help of the context).

This concerns especially the following two types:

- general argument.

The newly established node for the general argument has the t-lemma \#Gen.
Example:
Do této buchty se dává sůl \{\#Gen.ACT\} (=lit. Into this cake REFL gives salt \{\#Gen\}.)

## - unspecified Actor.

The newly established node for the unspecified Actor has the t-lemma \#Unsp.
Example:
Psali to v novinách \{\#Unsp.ACT\} (=lit. (They) wrote it in the_newspapers \{\#Unsp\}.)

For more on the general argument and unspecified Actor see Section 6.2.4.1, "General arguments and unspecified Actors".

### 6.12.2.1.3. Ellipsis of an obligatory free modification (t-lemma substitutes \#Oblfm and \#Rcp)

With omitted obligatory free modifications, we distinguish grammatical and textual ellipsis only partially.
We distinguish the following two types (by using two different $t$-lemmas):

- ellipsis of an obligatory free modification participating in a reciprocal relation.

The newly established node for the omitted obligatory free modification participating in a reciprocal relation is assigned the t-lemma \#Rcp.

Example:
Poslanci přehazují návrh zákona mezi klubem a sněmovnou \{\#Rcp.DIR3\} (=lit. The_MPs toss proposal of_law between the_club and the parliament $\{\# R c p\}$.)

For more on reciprocity see Section 9.2.6, "Coreference in constructions with reciprocity" and Section 6.2.4.2, "Reciprocity".

- other cases of ellipsis of obligatory free modifications.

The newly established node for the omitted obligatory free modification, not participating in a reciprocal relation, is assigned the t -lemma \#Oblfm.

Examples:
Vedouci podniku odcestoval\{\#Oblfm.DIR1\} (=lit. The_boss of_the_company left \{\#Oblfm\}.)
Fig. 6.214
Ten vypadá! \{\#Obl fm.MANN\} (=lit. He looks! \{\#Oblfm\}.)

NB! The possibility to assign the t -lemma substitute \#Obl fm can be in some cases limited by other annotation rules. The node representing a non-expressed obligatory free modification in constructions with the meaning of comparison (see Section 8.4, "Constructions with the meaning of "comparison""), restriction (see Section 8.6.1, "Meaning of "restriction"") and in constructions with consecutive clauses (see Section 8.7, "Constructions with a dependent consecutive clause") can be assigned the t-lemma \#Equal, \#Total or \#AsMuch. The t-lemmas \#Equal, \#Total or \#AsMuch are to be preferred over the \#Obl fm t-lemma.
!!!So far the annotation has made no difference between the cases of non-expressed obligatory free modifications in which the absence of the modification is a result of textual ellipsis and those in which there are different reasons for the omission (the coreference relations have not been indicated with these modifications so far). In addition, it is becoming obvious that the possibility to omit an obligatory free modification is not always a result of textual ellipsis or a process of the modification becoming general (which may be happen with arguments). The possibilty to simply omit the modification in the surface structure of the sentence should be taken into account too.

Figure 6.214. Ellipsis of an obligatory free modification


Vedouci podniku odcestoval. (=lit. Boss of_the_company left.)

### 6.12.2.2. Ellipsis of a non-obligatory modification

Ellipsis of a non-obligatory modification is not represented in any way in most cases. However, there are two special cases in which it is necessary to insert a node representing the non-expressed free modification into the tectogrammatical tree:

- constructions with a control relation.

In constructions with control, new nodes for the BEN modifications are sometimes inserted into the tectogrammatical tree - in order to represent the grammatical coreference relations properly. These nodes get the t-lemma substitute \#Benef.

For more on these constructions see Section 9.2.4, "Control".

- paratactic structures.

Ellipsis of non-obligatory modifications (free modifications and optional arguments) in paratactic structures is discussed in Section 6.12.3, "Ellipsis and the principle of shared modification in paratactic structures".

### 6.12.3. Ellipsis and the principle of shared modification in paratactic structures

Ellipsis of the governing and dependent elements is especially common in paratactic structures. Inserting new nodes for the governing expressions - if they are omitted - follows the rules in Section 6.12.1, "Ellipsis of the governing element".

The insertion of non-expressed obligatory modifications of coordinated elements follows the rules in Section 6.12.2.1, "Ellipsis of an obligatory modification", or the rules on shared modification (see

Section 6.6.1.1, "Shared modifier of paratactically connected elements"); the latter rules (i.e. interpreting the structure in terms of shared modification) are to be preferred.

Obligatory modifications are thus usually represented with the help of the rules on shared modifications rather than by inserting new nodes with t-lemma substitutes. Therefore, it is usually not necessary to insert a new node into the tectogrammatical tree. Cf.:

- Jirka dárek nejen vyrobil, ale i pěkně zabalil. (it. George the present not_only made, but also nicely wrapped)
= Jirka dárek nejen vyrobil, ale Jirka dárek i pěkně zabalil. (=lit. George the present not_only made, but George the present also nicely wrapped.)

Both the obligatory Actor and Patient of the verb zabalit (=to wrap) are subject to textual ellipsis in the second clause. But as the expressed Actor Jirka (=George) and the expressed Patient dárek (=present) can be represented as shared modifiers of both the verbs vyrobit (=to create) and zabalit (=to wrap), no new nodes representing the omitted dependent modifications will be insterted into the tectogrammatical tree. Cf. Fig. 6.215.

The possibility to analyze the data in terms of shared modification is useful also in those paratactic structures where the obligatory modifications are not expressed in the surface form of the sentence at all, i.e. with none of the coordinated elements. Only one new node with the appropriate $t$-lemma is inserted into the tectogrammatical tree - as a shared modifier. Cf.:

- Sedl si a čekal na vlak. (=lit. (He) sat REFL and waited for the_train.)

The non-expressed Actor of the coordinated verbs is represented by a newly established node with the t-lemma substitute \#PersPron, which is - as a shared modifier - a direct daughter of the root of the paratactic structure (cf. Fig. 6.216).

- Časté zalévání a hnojení je nezbytné. (=lit. Frequent watering and fertilizing is necessary.)

The omitted Actor and Patient of the verbs in coordination are represented by two newly established nodes with $t$-lemma substitutes, which are direct daughters of the root of the paratactic structure.

For more examples see also Section 6.6, "Parataxis").

Figure 6.215. Ellipsis and the principle of shared modification in paratactic structures


Jirka dárek nejen vyrobil, ale i pěkně zabalil. (=lit. George the _present not_only made, but also nicely wrapped.)

Figure 6.216. Ellipsis and the principle of shared modification in paratactic structures


Sedl si a čekal na vlak. (=lit. (He) sat REFL and waited for the_train.)

### 6.12.3.1. Textual ellipsis of a non-obligatory modification in paratactic structures

Since there is the possibility to analyze the data in terms of shared modification (see Section 6.6.1.1, "Shared modifier of paratactically connected elements"), also textual ellipsis of non-obligatory modifications in paratactic structures is represented in the tectogrammatical trees.

In those cases when it is obvious from the meaning of the sentence that the dependent (optional) modification, present only once in the surface structure (with one of the conjuncts), modifies both elements in coordination, this optional modification is represented as a shared modifier.

This type of ellipsis is represented in the trees both with the clausal and constituent coordination (parataxis of clauses and sentence parts). With the constituent coordination, the shared modifier (the non-expressed modification, in fact) usually gets the RSTR functor (other functors are also possible). With clausal coordination, the shared modifier may be assigned a wide range of adjunct functors.

Cf.:

- zlevněné sály a rukavice (=lit. reduced scarves and gloves)
= zlevněné šály a zlevněné rukavice. (=lit. reduced scarves and reduced gloves)
The free modification zlevněný (=reduced) is a shared modifier of the coordinated nouns šála (=scarf) and rukavice (=gloves).
- nové knihy a časopisy (=lit. new books and magazines)
= nové knihy a nové časopisy. (=lit. new books and new magazines)
The free modification nový (=new) is a shared modifier of the coordinated nouns kniha (=book) and časopis (=magazine). Cf. Fig. 6.217.
- hodný otec a dědeček (=lit. good grandfather and father)
$=$ hodný otec a hodný dědeček (=lit. good father and good grandfather) (1 person).
The free modification hodný (=good) is a shared modifier of the coordinated nouns otec (=father) and dědeček (=grandfather).
- Včera dal kytku Jirka Marii a také Milan Jiřině. (=lit. Yesterday gave flower George to_Mary and also Milan to_Henriette.)
= Včera dal kytku Jirka Marii a také dal včera kytku Milan Jiřině. (=lit. Yesterday gave flower George to_Mary and also gave yesterday flower Milan to_Henriette.)

The temporal adjunct včera (=yesterday) and the Patient kytka (=flower) are represented as shared modifiers of the coordination of the verbs dát ( $=$ to give) and dát ( $=$ to give). Cf. Fig. 6.219.

If it is not quite clear that the non-obligatory modification attached to one of the conjoined elements also modifies the other element (which is the more frequent case), this modification is not represented as a shared modifier (it is represented as modifying only the first conjunct). Cf.:

- modrá sála a rukavice (=lit. blue scarf and gloves)
$=$ modrá šála a rukavice (=lit. blue scarf and gloves) (the gloves do not have to be blue).
The free modification modrý (=blue) is not a shared modifier of the nouns šála (=scarf) and rukavice (=gloves). Cf. Fig. 6.218.
- Kytku dal včera Jirka Marii a Milan Jiřině. (=lit. Flower gave yesterday George to_Mary and Milan to_Henriette.)
= Včera dal kytku Jirka Marii a Milan dal kytku Jiřině (=lit. Flower gave yesterday George to_Mary and Milan gave flower to_Henriette.) (it is not necessarily clear, that it was yesterday when Milan gave the flower to Jiřina).

The temporal free modification včera (=yesterday) is not represented as a shared modification. Only the Patient kytka (=flower) is represented as a shared modifier. Cf. Fig. 6.220.

It is always possible to represent the cases of textual ellipsis of non-obligatory modifications in terms of shared modification at the tectogrammatical level; therefore, it is not necessary to introduce of any new t-lemma substitutes for the omitted non-obligatory modifications.

Exception: In case there is a modification, which could potentially be represented as a shared modifier, but which has an argument role w.r.t. some of the conjuncts and an adjunct role w.r.t. other conjuncts, it is not possible to represent the modification as a shared modifier. Instead, new nodes (with appropriate functors) have to be inserted into the structure, one for each conjunct modified by the given modification. Then, it may happen that a non-obligatory modification is represented by a newly established node. Since there is no t-lemma substitute introduced for these cases, the inserted node is a copy of the expressed node.

## Cf.:

- prezident a zakladatel firmy (=lit. president and founder of_company)
$=$ prezident firmy a zakladatel firmy (=lit. president of_company and founder of_company)
The modification firma (=company) cannot be represented as a shared modifier of the coordinated nouns, as the noun prezident (=president) requires an adjunct with the APP functor, while the noun zakladatel ( $=$ founder) requires an argument with the PAT functor. The node representing the noun firma (=company) will therefore be represented as a node with the PAT functor and will depend only on the node for the noun zakladatel (=founder). A copy of the expressed noun firma (=company) will be inserted into the position of the modification with the APP functor.

Cf. the analysis of zakladatel a prezident firmy (=founder and president of_company) in Section 6.6.1.1, "Shared modifier of paratactically connected elements".
!!! This is only a temporary solution.

Figure 6.217. Textual ellipsis of a non-obligatory modification


Máme nové knihy a časopisy. (=lit. (We) have new books and magazines.)

Figure 6.218. No ellipsis of a non-obligatory modification


Koupil modrou šálu a rukavice. (=lit. (He) bought blue scarf and gloves.)

Figure 6.219. Textual ellipsis of a non-obligatory modification


Včera dal kytku Jirka Marii a Milan Jiřině. (=lit. Yesterday gave flower George to_Mary and Milan to Henriette.)

Figure 6.220. No ellipsis of a non-obligatory modification


Kytku dal včera Jirka Marii a Milan Jiřině. (=lit. Flower gave yesterday George to_Mary and Milan to_Henriette.)

### 6.13. Modality and negation

Modality. Various types of modality are represented by various means in tectogrammatical trees:

- sentence modality is represented by the attribute sentmod.

See Section 5.7, "The sentmod attribute".

- deontic modality is represented by the grammateme deontmod.

SeeSection 5.5.10, "The deontmod grammateme (deontic modality)".

- dispositional modality is represented by the grammateme dispmod.

See Section 5.5.11, "The dispmod grammateme (dispositional modality)".

- verbal modality is represented by the grammateme verbmod.

See Section 5.5.9, "The verbmod grammateme (verbal modality)".

- modal particles (expressions with modal meanings) are represented by separate nodes with the functors MOD and ATT.

See Section 7.7, "Functors for rhematizers, sentence, linking and modal adverbial expressions".
Modal (and phase) predicates are described in Section 6.9.1, "Modal and phase predicates". Quasimodal (and quasi-phase) predicates are described in Section 6.9.2, "Quasi-modal and quasi-phase predicates".

Negation. We distinguish two types of negation and affirmation:

## - lexical negation.

Lexical negation means the use of the negation morpheme (ne-) for creating negative forms of words - nouns (nepřitel (=enemy), nedochvilnost (=unpunctuality)), adjectives (nelaskavý (=unkind), nestálý (=unstable)) and adverbs (nedobře (=unwell), nezajímavě (=uninterestingly)).

The fact that the word occurs in its negative form (since it is represented by a node with a positive t -lemma) is represented by the value neg1 in the grammateme negation (see Section 5.5.7, "The negation grammateme").

Lexical negation si discussed in Chapter 5, Complex nodes and grammatemes.

- syntactic negation and affirmation.

Syntactic negation and affirmation concerns the means of negation (or affirmation) of the truth value of the utterance content (or its part). These are primarily:

- the use of the negation morpheme (ne-) for creating a negative form of the verb (Pavel včera nepřišel (=lit. Pavel yesterday did_not_come.)).
- the use of the particle (negator) ne for negating a modification/constituent ( Pavel přišel ne na návštěvu (=lit. Pavel came not for (a) visit.)).
- the use of the particles ne (=no), nikoli/v (=no/t), ano (=yes) in answers (Ano, já přijdu zitra (=lit. Yes, I will_come tomorrow.)).

Prefix "ne-" in the negative form of a verb. The prefix ne- (negation morpheme, negator) in a negative verb form is represented by a separate node with the t -lemma substitute \#Neg. The t lemma of the node for the verb has a positive form.

## Compare:

- Pavel včera nepř̌išel. $\{$ \#Neg\} (=lit. Pavel yesterday did_not_come.)

The negative verb form nepřijít (=not_to come) is always represented by two nodes: a node that represents the verb (in its positive form, $\left.t_{-} l e m m a=p r ̌ i j i t\right)$ and a newly established node with the t -lemma substitute \#Neg for the negation.

NB! A node with the t-lemma \#Neg needs to be added also below newly established nodes for verbs if the meaning is negative (however, not with the nodes for empty verbs ( $t$ _lemma=\#EmpVerb)). For more details see Section 6.12.1.1.1, "Textual ellipsis of the governing verb".

NB! A node for the syntactic negation is not represented as a shared modifier with paratactically connected verbs. Each verb has (or does not have) its own syntactic negation according to its (positive or negative) meaning. Compare:

- Nebyl ani zraněn, ani polapen. (=lit.(He) was neither injured nor caught.)

A node for the negation ( $t \_l e m m a=\# N e g$ ) is represented below both verbs.
Independent words: "ne (=no)", " nikoli/v (=no/t)", "ano (=yes)". Independent words ne (=no), nikoli/v (=no/t) and ano (=yes) are represented by separate nodes with the t-lemmas ne, nikoli, nikoliv and ano.

## Compare:

- Pavel přišel ne na návštěvu (=lit. Pavel came not for (a) visit.)

The negator ne is represented by a separate node with the t-lemma $n e$.
For detailed rules for annotation of syntactic negation and affirmation means see Section 8.13, "Expressions of negation and affirmation".

## Chapter 7. Functors and subfunctors

The present chapter describes all functors and subfunctors used in PDT.
Functors. Functors represent the semantic values of syntactic dependency relations; they express the functions of individual modifications in the sentence.

However, there are certain groups of functors that do not fit in well with the definition; these are:

- functors used for the effective root nodes of independent clauses (see Section 6.4, "Verbal and non-verbal clauses") - these functors carry the information regarding the type of the clause (construction) and they also refer to the very fact that these clauses are independent:

PRED, DENOM, VOCAT, PARTL, PAR.
See Section 7.1, "Functors for the effective roots of independent clauses".

- functors used for paratactic structure root nodes (see Section 6.6, "Parataxis") - these express the type of the paratactic relation in question:

ADVS, CONFR, CONJ, CONTRA, CSQ, DISJ, GRAD, REAS, APPS, OPER.
See Section 7.12, "Functors expressing the relations between the members of paratactic structures".

- functors for the dependent parts of complex lexical units:

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CPHR, DPHR, CM.
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See Section 7.8, "Functors for multi-word lexical units and foreign-language expressions" and Section 7.12.4, "Functor for conjunction modifiers (CM)".

- the functor used for nodes representing foreign-language expressions:

FPHR.
See Section 7.8.3, "FPHR".

- functors for atomic nodes (see Section 3.2, "Atomic nodes"):

```
ATT, MOD, PREC, RHEM, INTF.
```

See Section 7.7, "Functors for rhematizers, sentence, linking and modal adverbial expressions".
Functors may be classified according to different criteria (into different subgroups). The basic subdivision is based on the part-of-speech characteristic of the expression on which the lexical unit in question depends. Hence, there are functors assigned exclusively to nodes dependent on nouns (adnominal functors) and functors that are primarily assigned to nodes dependent on verbs (adverbal functors).

Another criterion - a very important one - is the valency criterion, described in Section 6.2, "Valency"; the valency criterion divides functors into the argument functors and adjunct functors.

In the present chapter, the functors are classified primarily according to their semantics but the criteria mentioned above are taken into account as well.

The information regarding the functor of each node is contained in its functor attribute. See also Table 7.1, "Values of the functor attribute".

Table 7.1. Values of the functor attribute

| ACMP | adjunct expressing accompaniment (in the broad sense of the word) | tatinek s maminkou.ACMP (=Father with Mother) | See Section 7.6.1, "ACMP". |
| :---: | :---: | :---: | :---: |
| ACT | argument - Actor | Otec.AСT pracuje. (=Father is working) | See Section 7.2.1, "ACT". |
| ADDR | argument - Addressee | Poslal dárek přiteli.ADDR (=He sent a present to a friend) | See Section 7.2.4, "ADDR". |
| ADVS | paratactic structure root node adversative relation | Viděl, ale.ADVS neslyšel. (=He saw (it) but he didn't hear a thing) | See Section 7.12.1.1, "ADVS". |
| AIM | adjunct expressing purpose | Cvičí, aby zhubla.AIM (=She does exercises in order to lose weight) | See Section 7.5.1, "AIM". |
| APP | adnominal adjunct expressing appurtenance | můj.APP hrad (=my castle) | See Section 7.10.1, "APP". |
| APPS | the root node of an appositional structure | substantivum, neboli.APPS podstatné jméno (=substantive, or noun) | See Section 7.12.2, "Functor for apposition (APPS)". |
| ATT | atomic expression expressing the speaker's attitude | Je to samozřejmé.ATT pravda. (=Of course, it is true) | See Section 7.7.1, "ATT". |
| AUTH | adnominal adjunct referring to the author (of sth) | Nezvalovy.AUTH verše (=Nezval's poems) | See Section 7.10.2, "AUTH". |
| BEN | adjunct expressing that sth is happening for the benefit (or disadvantage) of sb/sth | Pracuje pro firmu.BEN (=He is working for the company) | See Section 7.9.1, "BEN". |
| CAUS | adjunct expressing the cause (of sth) | $\underline{Z}$ diovodu nemoci.CAUS zavřeno. (=It is closed because of illness) | See Section 7.5.2, "CAUS". |
| CNCS | adjunct expressing concession | Navzdory studijnim úspěchům.CNCS se v praxi neuplatnil. (=Despite he was successful as a student, he wasn't equally successful in practice) | See Section 7.5.3, "CNCS". |
| CM | conjunction modifier | otec a také.CM syn (=lit. Father and as_well_as his son) | See Section 7.12.4, "Functor for conjunction modifiers (CM)". |
| COMPL | adjunct - predicative complement | Vrátila se unavená. COMPL (=She returned tired) | See Section 7.11, "Functor for the predicative complement (COMPL)". |
| COND | adjunct expressing a condition (for sth else to happen) | Když spí.COND , nezlobi. (=If he sleeps, he is good) | See Section 7.5.4, "COND". |
| CONFR | paratactic structure root node confrontation | Pavel se zlepšuje, kdežto.CONFR Jan dostává čtyřky. (=Pavel is getting better while Jan is getting fours/bad marks) | See Section 7.12.1.2, "CONFR". |
| CONJ | paratactic structure root node simple coordination/conjunction | Pavel a.CONJ Jan (=Pavel and Jan) | See Section 7.12.1.3, "CONJ". |
| CONTRA | paratactic structure root node two entities are in conflict (in a match, fight etc.) | otec versus. CONTRA syn (=Father vs. son) | See Section 7.12.1.4, "CONTRA". |


| CONTRD | adjunct expressing confrontation | Zatímco mzdy klesají.CONTRD , ceny se zvyšují. (=While wages are going down, prices are going up) | See Section 7.9.2, "CONTRD". |
| :---: | :---: | :---: | :---: |
| CPHR | the nominal part of a complex predicate | mit plán.CPHR (=to have a plan) | See Section 7.8.1, "CPHR". |
| CPR | adjunct expressing comparison | víc než tisic.CPR korun (=more than one thousand crowns) | See Section 7.6.2, "CPR". |
| CRIT | adjunct expressing a criterion/measure/standard | Seřad' slova podle abecedy.CRIT (=Put the words in the alphabetical order, lit. organize words according to alphabet) | See Section 7.6.3, "CRIT". |
| CSQ | paratactic structure root node consequential relation | Pracoval nezodpovědně, á.CSQ proto dostal výpověd'. (=He wasn't responsible (in his work), therefore, he was fired) | See Section 7.12.1.5, "CSQ". |
| DENOM | effective root node of an independent nominal clause (which is not parenthetical) | Základní škola.DENOM (=Primary school) | See Section 7.1.2, "DENOM". |
| DIFF | adjunct expressing a difference (between two entities, states etc.) | Je vyšsí o dva centimetry.DIFF (=He is two centimeters taller) | See Section 7.6.4, "DIFF". |
| DIR1 | directional adjunct - answering the question "odkud (=where from?)" | Přijel z Prahy.DIR1 (=He came from Praha) | See Section 7.4.1, "DIR1". |
| DIR2 | directional adjunct - answering the question "kudy (=which way?)" | Jdou lesem.DIR2 (=They are walking through the woods) | See Section 7.4.2, "DIR2". |
| DIR3 | directional adjunct - answering the question "kam (=where to?)" | Přišel domů.DIR3 (=He came home) | See Section 7.4.3, "DIR3". |
| DIS J | paratactic structure root node disjunctive relation | Pojedu já, nebo.DISJ ty. (=Either I will go, or you) | See Section 7.12.1.6, "DISJ". |
| DPHR | the dependent part of an idiomatic expression | křižem krážem.DPHR (=crisscross) | See Section 7.8.2, "DPHR". |
| EFF | argument - Effect | Jmenovali ho předsedou.EFF (=They appointed him as a chairman) | See Section 7.2.3, "EFF". |
| EXT | adjunct expressing extent | V nádobě je přesně.EXT litr vody. (=The pot contains exactly one liter of water) | See Section 7.6.5, "EXT". |
| FPHR | part of a foreign-language expression | cash.FPHR flow.FPHR | See Section 7.8.3, "FPHR". |
| GRAD | paratactic structure root node gradation | Běžel, ba.GRAD utíkal. (=He not only ran, he ran helter-skelter) | See Section 7.12.1.7, "GRAD". |
| HER | adjunct expressing inheritance | šátek po matce.HER (=lit. scarf after Mother, i.e. inherited) | See Section 7.9.3, "HER". |
| ID | the nominative of identity and explicative genitive | hrad Karlštejn. ID; trest smrti.ID (= the castle Karlštejn, death penalty; lit. penalty death.GEN) | See Section 7.10.3, "ID". |
| INTF | atomic expression referring to the "false (expletive) subject" | Ono.INTF prši. (=It is raining) | See Section 7.7.2, "INTF". |


| INTT | adjunct expressing intention | Šel nakoupit.INTT (=He went shopping) | $\begin{aligned} & \text { See Section 7.5.5, "IN- } \\ & \text { TT". } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| LOC | locative adjunct - answering the question "kde (=where?)" | Pracuje vPraze.LOC (=She works in Praha) | See Section 7.4.4, "LOC". |
| MANN | adjunct expressing the manner (of doing sth) | Mluví hlasitě.MANN (=He is talking loud) | See Section 7.6.6, "MANN". |
| MAT | adnominal argument referring to the content of a container | sklenice vody.MAT (=a glass of water) | See Section 7.10.4, "MAT". |
| MEANS | adjunct expressing a means (of doing sth) | Píše perem.MEANS (=She is writing with a pen) | See Section 7.6.7, "MEANS". |
| MOD | atomic expression with a modal meaning | Pracuje asi.MOD na půl úvazku. (=She works probably part-time) | See Section 7.7.3, "MOD". |
| OPER | paratactic structure root node referring to a mathematical operation or interval | pět $\underline{\text { až.OPER deset hodin (=from }}$ five to ten hours) | See Section 7.12.3, "Functor for mathematical operations and intervals (OPER)". |
| ORIG | argument - Origo | Vyrábí nábytek ze dřeva.ORIG (=He makes furniture out of wood) | See Section 7.2.5, "ORIG". |
| PAR | effective root node of a parenthetic (verbal or nominal) clause | Přijedu 13. prosince (pátek.PAR ). ( $=$ I am coming on December 13th (Friday)) | See Section 7.1.5, "PAR". |
| PARTL | effective root node of an independent interjectional clause | Hurá.PARTL , vyhráli jsme! (=Hurray, we won!) | See Section 7.1.4, "PARTL". |
| PAT | argument - Patient | Vaří oběd.PAT (=He is cooking lunch) | See Section 7.2.2, "PAT". |
| PREC | atomic expression referring to the preceding context | A.PREC pak odešel. (=And then he left) | See Section 7.7.4, "PREC". |
| PRED | effective root node of an independent verbal clause (which is not parenthetical) | Pavel dal.PRED kytku Martině. (=Pavel gave a flower to Martina) | See Section 7.1.1, "PRED". |
| REAS | paratactic structure root node causal relation | Dostal výpověd', nebot'. REAS pracoval nezodpovědně. (=He was fired, since he wasn't responsible) | See Section 7.12.1.8, "REAS". |
| REG | adjunct expressing with regard to what sth is asserted | Vzhledem k počasí.REG nelze nic plánovat. (=Considering the weather, it's not possible to plan anything) | See Section 7.6.8, "REG". |
| RESL | adjunct expressing the result/effect of something | Mluví tak potichu, že mu nerozumime.RESL (=He is speaking so softly that we can't understand what he's saying) | See Section 7.6.9, "RESL". |
| RESTR | adjunct expressing an exception / restriction | Kromě tebe.RESTR tam byli všichni. (=Except for you, everybody was there) | See Section 7.6.10, "RESTR". |
| RHEM | atomic expression - rhematizer | Jen.RHEM Karel odešel. (=Only Karel left) | See Section 7.7.5, "RHEM". |
| RSTR | adnominal adjunct modifying its governing noun | velký. RSTR dům ( $=$ a big house) | See Section 7.10, "Specific adnominal functors". |


| SUBS | adjunct expressing that sb/sth substitutes for $\mathrm{sb} / \mathrm{sth}$ else | Za otce.SUBS jednal strýc. (Instead of Father, our uncle took action) | See Section 7.9.4, "SUBS". |
| :---: | :---: | :---: | :---: |
| TFHL | temporal adjunct - answering the question "na jak dlouho? (=for how long?)" | Přijel na mésic.TFHL (=He came for a month) | See Section 7.3.2, "TFHL". |
| TFRWH | temporal adjunct - answering the question "ze kdy? (=from when?)" | Přeložil jednání ze soboty.TFRWH na dnešek. (=He shifted the negotiations from Saturday to today) | See Section 7.3.3, "TFRWH". |
| THL | temporal adjunct - answering the questions "jak dlouho? (=how long?)" and "za jak dlouho? (=after how long?)" | Stihnul to za týden.THL (=He managed to do it in a week) | See Section 7.3.4, "THL". |
| THO | temporal adjunct - answering the questions "jak často? (=how often? )" and "kolikrát? (=how many times?)" | Pracuju na tom každý den.THO (=I work on that every day) | See Section 7.3.5, "THO". |
| TOWH | temporal adjunct - answering the question "na kdy? (=to when?)" | Přeložil jednání ze soboty na dnešek.TOWH (=He moved the negotiations from Saturday to today) | See Section 7.3.6, "TOWH". |
| TPAR | temporal adjunct - answering the questions "současně s čím? (=in parallel/simultaneously with what?)" and "během jaké doby? (=during what time?)" | Během naši dovolené.TWHEN ani jednou nepršelo. (=During our holiday it didn't rain once) | See Section 7.3.7, "TPAR". |
| TSIN | temporal adjunct - answering the question "od kdy? (=since when?)" | Budu pracovat od zitra.TS IN (=I will be working from tomorrow) | See Section 7.3.8, "TSIN". |
| TTILL | temporal adjunct - answering the question "do kdy? (=until when?)" | Udělám to do pátku.TTILL (=I will do it before Friday) | See Section 7.3.9, "TTILL". |
| TWHEN | temporal adjunct - answering the question "kdy? (=when?)" | Přijdu zitra.TWHEN (=I'll come tomorrow) | See Section 7.3.1, "TWHEN". |
| VOCAT | effective root node of an independent vocative clause | Hanko.VOCAT , podej mi to. (=Hanka, give it to me) | See Section 7.1.3, "VOCAT". |

Subfunctors. With some functors, more detailed specification of their relation to their governing node is needed. Such information is carried by subfunctors.

The subfunctors are described in Section 7.13, "Further specification of a functor".
!!! There was no subsequent check regarding the appropriate assignment of the adjunct functors (and most of the adnominal argument functors). In the future, it will be necessary to carry out such a check - there may be identical modifications bearing different functors in the data. It may be also necessary to define individual functors with more precision.

### 7.1. Functors for the effective roots of independent clauses

Functors for the effective roots of independent clauses are functors that express the independence of the given lexical unit and determine the clause type. These functors are classified depending on
whether the clause is interpreted as a verbal, nominal, interjection or vocative clause as well as whether the independent clause is analyzed as a parenthesis or not.

## List of the functors for the effective roots of independent clauses

- PRED
- DENOM
- VOCAT
- PARTL
- PAR

Verbal and nonverbal independent clauses are discussed in Section 6.4, "Verbal and non-verbal clauses". Parenthesis is discussed in Section 6.7, "Parenthesis".

The functors for the effective roots of independent clauses are assigned to the effective roots of tectogrammatical trees. Furthermore, they are assigned to all effective roots of independent clauses that occur lower in the structure of a tectogrammatical tree (for the most part, this is the case of syntactically independent parenthesis). The relations within the functors for the effective root nodes of independent clauses are presented in Table 7.2, "Relations within the functors for the effective root nodes of independent clauses".

Table 7.2. Relations within the functors for the effective root nodes of independent clauses

| Functors for the effective root of a tectogrammatical tree | PRED | DENOM | VOCAT | PARTL | PAR |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Functors for the corresponding effective root occuring lower <br> in a tectogrammatical tree | PAR | PAR | VOCAT | PARTL | PAR |

### 7.1.1. PRED

Definition of the PRED functor
The functor PRED (predication) is a functor for the effective root of an independent verbal clause, which is not a parenthesis.

The PRED functor is assigned to the node representing the governing verb (predicate) of an independent verbal clause, if it is not a parenthesis. Independent verbal clauses are defined in Section 6.4.1, "Verbal clauses". The same section also describes the possible forms of the governing predicate, which is represented by a node with the PRED functor.

Example:
Pavel dal.PRED kytku Marii. (=lit. Paul gave a_flower to_Mary.) Fig. 7.1
For more examples see Section 6.4.1, "Verbal clauses".

Figure 7.1. The PRED functor


Pavel dal kytku Marii. (=lit. Paul gave a_flower to_Mary.)

### 7.1.2. DENOM

Definition of the DENOM functor
The functor DENOM (denomination) is a functor for the effective root of an independent nominative clause, which is not a parenthesis.

The DENOM functor is assigned to the node representing the governing noun (in the nominative case) of an independent nominative clause, if it is not a parenthesis. Independent nominative clauses are defined in Section 6.4.2, "Non-verbal clauses". The same section also describes the possible forms of the governing noun, which is represented by a node with the DENOM functor.

Example:
Názory.DENOM čtenářư. (=lit. Opinions of_readers.) Fig. 7.2
For more examples see Section 6.4.2, "Non-verbal clauses".

Figure 7.2. The DENOM functor
root
$\vdots$
názor.enunc
f_DENOM
n.denot
inan.pl
o
čtenář
f_ACT
n.denot
anim.pl

Názory čtenářů. (=lit. Opinions of_readers.)

### 7.1.3. VOCAT

Definition of the VOCAT functor
The functor VOCAT is a functor for the effective root of an independent vocative clause.

The VOCAT functor is assigned to the node representing the governing noun (in the vocative case) of an independent vocative clause, even in those cases when the vocative clause is a parenthesis. Independent vocative clauses are defined in Section 6.4.2, "Non-verbal clauses". The same section also describes the possible forms of the governing noun, which is represented by a node with the VOCAT functor.

Examples:
Milá Jano.VOCAT ! (=lit. Dear Jane!) Fig. 7.3
Pane majore.VOCAT , hodlám zavést nové prvky. (=lit. Sir major, I_intend to_introduce new elements.) Fig. 7.4
"Baryku.VOCAT , běž na místo, " volala přitelkyně. (="Baryk, go to your place", called my girlfriend.) Fig. 7.5

For more examples see Section 6.4.2, "Non-verbal clauses".

Figure 7.3. The VOCAT functor
root
$\vdots$
fana.enunc
f_VOCAT
n.denot
fem.sg
person_name
b
milý
f_RSTR
n.denot
fem.sg

Milá Jano! (=lit. Dear Jane!)
Figure 7.4. The VOCAT functor


Pane majore, hodlám zavést nové prvky. (=lit. Sir major, I_intend to_introduce new elements.)

Figure 7.5. The VOCAT functor

"Baryku, běž na místo, " volala přitelkyně. (=lit. "Baryk, go to place", called girlfriend.)

### 7.1.4. PARTL

Definition of the PARTL functor
The functor PARTL is a functor for the effective root of an independent interjectional clause.

The PARTL functor is assigned to the node representing the governing interjection or particle of an independent interjection clause, even in those cases when the interjectional clause is a parenthesis. Independent interjectional clauses are defined in Section 6.4.2, "Non-verbal clauses". The same section also describes the possible forms of the governing expression, which is represented by a node with the PARTL functor.

Examples:
Pozor.PARTL! (=Attention!) Fig. 7.6
Ano.PARTL to je pravda. (=lit. Yes, that is true.) Fig. 7.7
" Ach.PARTL , to je škoda, " povzdechl si. (= "Oh, that is a pitty", he sighed.) Fig. 7.8
For more examples see Section 6.4.2, "Non-verbal clauses".

Figure 7.6. The PARTL functor

```
O
root
O
pozor.enunc
f_PARTL
atom
```

Pozor! (=lit. Attention!)
Figure 7.7. The PARTL functor


Ano, to je pravda. (=lit. Yes, that is true.)

Figure 7.8. The PARTL functor

"Ach, to je škoda, " povzdechl si. (=lit. "Oh, that is pitty", (he) sighed REFL.)

### 7.1.5. PAR

Definition of the PAR functor
The functor PAR is a functor for the effective root of an independent verbal or nominative clause, which is a parenthesis in the sentence.

The PAR functor is assigned either to the node representing the governing verb (predicate) of a parenthetical independent verbal clause or to the node representing the governing noun or adjective (in the nominative) of a parenthetical independent nominative clause. Independent verbal and nominative clauses are defined in Section 6.4, "Verbal and non-verbal clauses". The same section also describes the possible forms of the governing expression, which is represented by a node with the PAR functor.

See Section 6.7, "Parenthesis" for details on parenthesis.
Example:
Přijedu 13. prosince (pátek.PAR ). (=I will arrive on December 13 (Friday).) Fig. 7.9
For more examples see Section 6.7, "Parenthesis".

Figure 7.9. The PAR functor


Přijedu 13.prosince (pátek). (=lit. (I) will_arrive 13th December (Friday).)

### 7.2. Argument functors

The basic definitions of the arguments and rules for their identification and representation are to be found in Section 6.2, "Valency". The present section is devoted mainly to the description of the cognitive roles that can be expressed by the individual arguments.

## List of the argument functors

- ACT
- ADDR
- EFF
- ORIG
- PAT

NB! The modification with the MAT functor is also an argument; it is described in Section 7.10.4, "MAT".

The possible forms. The possible forms of the individual arguments are listed in the valency frames (i.e. in the valency lexicon). For more on this see Section 6.2.2, "Valency frames and the way they are recorded in the valency lexicon". The present section only mentions the most common forms for the individual arguments without any reference to the lexical content of a particular governing element. The forms are only classified on the basis of the semantic part-of-speech character of the governing lexical item. When listing the possible forms for arguments dependent on nouns, only the forms specific for adnominal arguments are presented (different from the forms of adverbal arguments); especially if these are arguments of non-deverbal nouns. The possible forms of deverbal nouns are often identical to the forms of the arguments of their base verbs, namely when these are prepositional phrases, semantic cases of nouns or dependent clauses.

Borderline cases with argument functors. Borderline cases with the individual argument functors are described mainly in the section on valency. The general rules (tendencies) for determining the functor values in unclear cases are described in Section 6.2.3.1.3, "Finding the borderline between arguments and obligatory adjuncts and between obligatory and optional adjuncts" and Section 6.2.3.1.4, "Finding the borderline between the individual argument functors". A reference to the description of the relevant borderline cases is always included in the section devoted to a given argument.

### 7.2.1. ACT

Definition of the ACT functor

ACT (Actor) is a functor used primarily for the first argument. In those cases when there is no argument shifting, the modification with the ACT functor refers to the human or non-human originator of the event, the bearer of the event or a quality/property, the experiencer or possessor.

For the rules regarding the argument shifting, see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)".

Although the Actor is defined primarily syntactically (as the first argument), it is also possible to provide some semantic characteristics of the argument. The ACT functor is usually assigned to modifications expressing the following cognitive roles:

- the human originator of the event.

Examples:
Teprve před týdnem přestala za prací do Púchova dojizžět Ludmila Krajčová.ACT (=Only a week ago, Ludmila Krajčová stopped commuting to Púchov)

Její manžel.ACT tam však pracuje dál. (=Her husband still works there, though)
zločiny mafie.ACT na Siciliii (=the Mafia's crimes on Sicily)
schůzka premiéra.ACT s prezidentem (=the meeting of the Prime Minister with the President)

- the non-human originator of the event.

Examples:
Ten román. ACT mě oslovil. (=The novel appealed to me)
Byl zabit bleskem.ACT (=He was killed by lightning)

- the bearer of the event.

Examples:
Sklo.ACT zůstává nalepené na fólii (=The glass stays sticked to the foil)
Barvy.ACT Střižkových obrazů se stále zjasňují. (=The colors used in Střižek's paintings get brighter and brighter)

Matka.ACT leži. (=The Mother is in bed)

- the bearer of a quality/property.

Examples:

Každý tah.ACT je rychlejši než slovo. (=Every move/stroke is faster than a word)
Karoserie.АСТ je z plechu. (=The car body is made of plate)
radost obyvatel.ACT ze ziskané nezávislosti (=the joy of the citizens at the gained independence)

- the possessor.

Examples:
Přitel.ACT má nové auto. (=A friend of mine has a new car)
Přitel.ACT prodal chalupu. (=A friend of mine sold his cottage)

- the experiencer.

Examples:
Českým skokanům.ACT se dařilo dobře. (=The Czech jumpers were doing fine)
Je mi.ACT smutno. (=I am sad)

Forms of the Actor with verbs. The forms of modifications with the ACT functor differ depending on which part of speech the governing lexical item is. The basic forms of the Actor with verbs are:

## - noun in a non-prepositional case form.

The most common forms:

| nominative | Ministři potvrdili oznámený odhad vývoje kurzu koruny. (=The ministers.NOM <br> confirmed the estimated development of the exchange rate of the crown) |
| :--- | :--- |
| instrumental | Zákon byl projednán parlamentem ve zkrácené lhůtě. (The law was discussed by the <br> Parliament.INST) |
| dative | Ani ve snu se trenérovi nezdálo o takovém vitézství. (=lit. Not_even in dream (the) <br> couch.DAT dreamt about such victory) |

## - prepositional phrase.

The most common forms:

| $\mathrm{k}+3$ | K novým násilnostem došlo v noci na včerejšek. (=New acts of violance took place last <br> night; lit. to new acts_of_violance.DAT) |
| :--- | :--- |
| na+4 | Na každého jednou dojde. ( $=$ lit. To everyone once comes; meaning Everyone gets into such <br> a situation/gets down once) |
| $\mathrm{o}+4$ | Jedná se o nezaměstnané a důchodce. (=It concerns the unemployed and retired) |
| $\mathrm{z}+2$ | Z premiérova návrhu tentokrát sešlo. (=The Prime Minister's proposal was dropped) |

NB! The Actor can also be expressed by prepositional phrases that have various quantificational meanings: kolem +2 , okolo +2 , $n a+4$, po +6 , přes +3 etc. For example:

Každý týden opouštělo Československo okolo 40 kamionů.ACT (Every week, approximately forty trucks left Czechoslovakia)

Loni zahynulo při nehodách přes 500 cyklistů.ACT (=Last year, more than 500 cyclists died in accidents)

For more on these forms, see also Section 6.2.2.3, "Productive changes in the surface form (not specified in the valency frames)".

## - the infinitive.

Examples:
Je tedy namistě nehřešit.ACT na to, že mladý badatel pracuje s nadšenim pro vědu, bez ohledu na plat. (=It is appropriate not to take advantage of...)

Na obchodní místo RM-S je nejlépe dostavit se.ACT osobně s platným občanským průkazem. (=It is best to come in person...)

Jist.ACT je obřad. (=Eating (lit. to eat) is a ritual)

## - dependent clause.

The most common (subordinating) conjunctions:

| aby | Pro budoucnost je důležité, aby byl dokončen proces odstátnění. (=For the future, <br> it is necessary to finish denationalizing) |
| :--- | :--- |
| co | Je to poprvé, co nějak její odpovědi komentuje. (=It is the first time he comments <br> on her answers) |
| jestli/jestliže/-li | Není jisté, jestli to stihne včas. (=It is not sure whether he can make it) |
| kdyby | Bylo by ideální, kdyby nám korektor větu opravil. (=It would be best if the <br> proofreader corrected the sentence) |
| zda | Není jisté, zda parlament školné vo̊bec odsouhlasí. (=It is not sure whether the <br> Parliament passes the bill introducing the tuition fees) |
| že | Castrovi by mélo být jasné, že musí provést reformu. (=It should be clear to <br> Castro that he has to carry out the reform) |

A dependent clause the effective root node of which is assigned the ACT functor can also be introduced by a variety of relative elements, often in combination with a supporting expression. For example:

| kdo | Komu se to nebude libit, může klidně odejít. (=Those who won't like it can leave) Kdo nažene <br> třináctiletou zabu do profesionálního tenisu, nevidí za roh. (= Who pushes a thirteen-year- <br> old girl into professional tennis can't see the consequences) |
| :--- | :--- |
| co | Co nás potkalo, nebyl nevyhnutelný osud. (=What happened to us wasn't inevitable) |
| kdy | Ještě není jasné, kdy se zastupitelstvo sejde. (=It is not clear yet when the council meets) |
| jak | Vadí mi, jak nedostatečně se věnují práci herců. (=I don't like it how they neglect the actors <br> perfomance) |
| kam | Je mi v podstatě jedno, kam nás zařadí. (=I don't care much where they put us) |
| proč | Není důležité, proč odešel. (=It is not important why he left) |

More examples:
$\leq T o\rangle$, co potřebuje.ACT , je nedosažitelné. (=What (lit. that what) he needs is out of his reach)
$\leq$ Ten>, na koho se nedostalo.ACT , mohl zkusit štěstí ještě na černém trhu. (=The ones who (lit. that who) weren't lucky could try their luck..)
$\leq T o\rangle$, jak se chová.ACT , je hrozné. (=The way (lit. that how) he behaves is awful)
For more on supporting expressions, see Section 6.5.3, "Supporting expressions".

Forms of the Actor with nouns. The basic forms of the Actor with nouns are:

- noun in a non-prepositional case form.

The most common forms:

| genitive | vývoj hlavnich hospodářských ukazatelů (=the development of the main economic <br> indices); souhlas Francouzů s maastrichtskými dohodami (=the French approval, <br> lit. approval of the_French..) |
| :--- | :--- |
| instrumental | fingované nákupy nemovitostí českými občany (=lit. feigned purchase (of) real_es- <br> tates (by) Czech citizens) |

- possessive forms of adjectives and pronouns.

Examples:
jeho.ACT výkon (=his performance)
autorčina.ACT adaptace veršů (=the author's adaptation of her poems)

- prepositional phrase.

The most common forms:

| mezi+7 (in reciprocal construc- <br> tions) | spor mezi oběma smluvnimi partnery (=a dispute between the <br> contracting parties) |
| :--- | :--- |
| od+2 | políček polskému papeži od polského parlamentu (=a slap in the <br> face to the Polish pope from the Polish Parliament) |

- dependent clause.

The Actor can be expressed by a dependent clause with nouns as well, especially if the dependent clause is introduced by a relative element in combination with a supporting word. For example:
kolaps $\leq$ toho $\rangle$, co ještě zbylo.ACT ve zdravotnictví (=the collapse of what (lit. that what) has remained..)

For more on supporting expressions, see Section 6.5.3, "Supporting expressions".
Forms of the Actor with adjectives. The Actor dependent on an adjective has mostly the (non-prepositional) instrumental form.

Example:
dokument připravený ministerstvem.ACT financí (=the document issued by the Ministry of Finance)

### 7.2.1.1. Borderline cases with the ACT functor

Border with the AUTH functor. The ACT functor is bordering on the AUTH functor in some cases (see Section 7.10.2, "AUTH"). For more on this border see Section 6.2.3.2.3.1, "Borderline between the Actor and AUTH".

Border with the PAT functor. When determining the first and second argument (ACT and PAT) one of which has the dative form, it may be hard to tell which is which; i.e. ACT may border on PAT. For more on this see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)". The precise rules for determining the functor value are still to be established.

### 7.2.2. PAT

Definition of the PAT functor
The PAT functor (Patient) is a functor used primarily for the second argument. In those cases when there is no argument shifting, the modification with the PAT functor refers to the affected object (in the broad sense of the word).

For the rules regarding the argument shifting, see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)".

Although the Patient is defined primarily syntactically (as the second argument), it is also possible to provide some semantic characteristics of the argument. The PAT functor is assigned to the modifications denoting the affected object in the broad sense of the word, namely:

- the object created in the event, the object being destroyed or changing its properties in the event (e.g. its location, possessor or state).

Examples:
Postavili stany.PAT (=They pitched the tents)
Snědl polévku.PAT (=He ate the soup)
Uspal dcerku.PAT (=He put his daughter to sleep)
Prodal dům.PAT (=He sold the house)

- the object the event is directed at.

Examples:
Hledal houby. PAT (=He was looking for mushrooms)
Zbil syna.PAT (=He beat up his son)
Kochal se prírodou.PAT (=He feasted his eyes on the nature)

- the object specifying the event.

Examples:
Hrát na klavir. PAT (=to play the piano)
Tančit valčilk. PAT (=to dance a waltz)
Strom obruistá novým listim.PAT (=The tree is growing new leaves)
Žije svou prací.PAT (=He lives for his work)
vyučování matematice.PAT (=teaching mathematics)
Učil se kominikem.PAT (=He was trained to be a chimney sweep)

- the possessed or transferred (handed over) object.

Examples:
Mít dost peněz.PAT (=to have enough money)

Nakazil se od kolegů chřipkou.PAT (=He caught the flu from his colleagues)
Zahrnul sportovce chválou.PAT (=He bestowed praise on the sportsmen)
obdařený pudem.PAT sebezáchovy (=endowed with the instinct of self-preservation)

- the object referring to the goal of the event, the object one gets in contact with.

Examples:
Zmocnil se dalšich budov.PAT (=He captured/took possession of more buildings)
Dosáhl konce. PAT (=He reached the end)
Bližit se cíli.PAT (=to be approaching the finish)

- the object one loses possession of/contact with in the event.

Example:
Vzdal se svého majetku.PAT (=He gave up his possessions)

- stimulus.

Example:
Bojí se, že bude pršet. PAT (=He is afraid that it might rain)

- the receiver/addressee of the event.

Examples:
Ozval se mu.PAT (=He let him know)
Hrozil mu.РАТ neúspěch. (=lit. Threatened him failure, meaning: there was a risk of failure (for him))

- the possessor.

Example:
Kniha patrí Janovi.PAT (=The book belongs to Jan)

- the object referring to the individual benefiting/suffering from the event.

Examples:
Neubližujte zviřatům. PAT (=Don't harm the animals)
Fandí moderním obrazům.PAT (=He is a big fan of modern paintings)

- the object referring to the thing affecting the subject.

Examples:
Bránil se nepřiteli.PAT (=He fought back against the enemy)

Vzdoruje vlastní lenosti.PAT (=He resists his own laziness)
Podřidil se požadavkům.PAT (=He surrendered to the conditions)

- the object expressing with respect to what the event is evaluated.

Examples:
To se rovná zradě.PAT (=This is tantamount to treason)
Podobá se matce.PAT (=He resembles his mother)

- the object referring to the moved entity.

Examples:
Házel kamenem. PAT (=He was throwing a stone)
Disponoval jen malým kapitálem. PAT (=He had only limited capital at his disposal)

- the object referring to what the subject is occupied with.

Example:
Bavil se pokřikováním. PAT na kolemjdoucí. (=He amused himself with shouting at the passersby)

- the theme/topic of a book, story, painting etc.

Examples:
Vyprávěl nám o zájezdu. PAT do Tater. (=He was telling us about his trip to the Tatras)
kniha o dinosaurech.PAT (=a book on dinosaurs)
socha Napoleona. PAT (=a statue of Napoleon)

NB! The PAT functor is also assigned to nodes representing the nominal part of a verbonominal predicate (e.g. být hodný.PAT (=to be good)). For more on this see Section 8.2.1.3, "Copula "být" (verbonominal predicate)".

Forms of the Patient with verbs. The forms of modifications with the PAT functor differ depending on which part of speech the governing lexical item is. The basic forms of the Patient as a modification of verbs are:

- noun in a non-prepositional case form.

The most common forms:

| accusative | Kapitalistická racionalita neodstraní subracionální impulzy. (=The cap- <br> italist rationality will not eliminate the sub-rational impulses) |
| :--- | :--- |
| nominative (in passive) | Pak byla pravopisná komise oživena ještě třikrát. (=After that, the ortho- <br> graphic commitee was revived three more times) |
| genitive | Vysoce si cenili jeho schopnosti improvizovat. (=They really appreciated <br> his ability of improvising) |


| dative | Britská vláda ozbrojenému nátlaku neustoupí. (=The British government <br> will not give in to the pressure) |
| :--- | :--- |
| instrumental | Liberecká nemocnice se nemǔže stát moderním zařízením. (=The Liberec <br> hospital cannot become a modern facility) |

## - prepositional phrase.

The most common forms:

| bez+2 | Obejde se však "čistá" véda bez pedagogického provozu? (=Can the "pure" science do without the pedagogical side of the thing?) |
| :---: | :---: |
| do +2 | Pštrosí kuřata za 12 měsiců dorůstají do hmotnosti brojlerů. (=Ostrich chicken get the weight of broilers within 12 months) |
| k+3 | Zástupci celého politického spektra se vyjadřují k návrhu výkonné rady ODS. (=All political parties comment on the proposal..) |
| na+4 | Často zapomíná ve výčtu členů na Slovensko. (=Often, Slovakia is forgotten when listing the members) |
| na+6 | Zelenka pracoval na výpravě opery Brundibár. (=Zelenka worked on the staging of the Brundibar opera) |
| nad+7 | Žasl jsem nad kvalitou sýrů, kterou jsem z domova nepředpokládal. (=I was amazed by the quality of the different kinds of cheese...) |
| o+4 | Požádali jsme o přeložení ligového utkánís Drnovicemi. (=We asked for putting off the match..) |
| o+6 | Mnozí učitelé ve spojení se žvýkačkou rádi mluví o dobytku. (=Many teachers like to talk about "cattle" in the connection with chewing) |
| od +2 | Tyto učební osnovy a předměty se od civilnich středních škol přiliš neliší. (=The curriculum does not differ much from that of the civilian high schools) |
| po+6 | Kriminalisté pátrají po mladém muži podezřelém z několikanásobného vloupáni. (=The police are searching for a young man suspected of...) |
| pro+4 | Nakonec jsem se rozhodl pro opačnou stranu. (=Finally, I decided for the opposite side) |
| proti+3 | Železný se ohrazuje proti srovnávání rozpočti ČT a TV Nova. (=Železný objects to comparing the budgets of ČT and TV Nova) |
| před+7 | Těmito řádky se neuzaviráme před staršimi ani mladšimi kolegy. (=We don't shut ourselves from either older or younger colleagues...) |
| s+7 | Mirový vyslanec se sejde s šéfem UNITA. (=The peace envoy is going to meet the boss of UNITO) |
| $\mathrm{v}+4$ | Věřím v soudnost koaličnich partnerů. (=I believe in the common sense of our coalition partners) |
| v+6 | V souboji o první přičku zámořské NHL prohrálo Chicago doma s Detroitem 2:4. (=Chicago lost the game with Detroit in the fight for the first place...) |
| $\mathrm{z}+2$ | Tento způsob práce vychází z Reischkeova dlouhodobého programu. (=This way of work comes from Reischke's long-term program) |
| za+4 | Zaplatil za úspěch podlomeným zdravím. (=He paid for his success by his health) |
| za+7 | honba za neobyčejně vzácným diamantem (=a hunt for a very rare diamond) |

NB! The Patient can also be expressed by prepositional phrases that have various quantificational meanings: kolem +2 , okolo +2 , na +4 , po +6 , přes +3 etc. For example:

Prodal okolo 10 kusů.PAT (=He sold about 10 pieces)

For more on these forms see Section 6.2.2.3, "Productive changes in the surface form (not specified in the valency frames)".

## - the infinitive.

Examples:
Zapomněli jsme dýchat.PAT (=We forgot to breathe)
Měla za úkol znovu předložit.PAT zprávu radě zastupitelstva hlavniho města. (=Her task was to submit the report to the council...)

## - dependent clause.

The most common (subordinating) conjunctions:

| aby | Doporučují, aby stejnou studii udělali pro ostatní závody. (=They recommend <br> that the same study be done... |
| :--- | :--- |
| až | Prezident čeká, až se protivnici pustí do sebe a odhodí rukavice. (The president <br> waits for the opponents to start fighting...) |
| jestli/jestliže/-li | Jestli nastoupí za Spartu, rozhodnou až přǐ̌tí týden. (=They decide only next <br> week whether he will play for Sparta) |
| kdyby | KDU-ČSL by přivitala, kdyby komise podléhala parlamentu. (=KDU-ČSL would <br> be happy if the commitee were subordinate to the Parliament) |
| když | Stále více začínají podnikatelé oceňovat, když v počitači získají také svého <br> daňového a právního poradce. (=Owners of firms appreciate it when they find <br> a legal and tax adviser in their computer) |
| zda/zdali | Zeptali jsme se ho, zda si už vybral vhodnou lokalitu. (=We asked him whether <br> he had already chosen a suitable locality) |
| že | Ssou přesvědčeni, že si tyto aféry Češi vymýšlejí. (=They are convinced that <br> Czechs make up these affairs) |

A dependent clause the effective root node of which is assigned the PAT functor can also be introduced by a variety of relative elements, often with a supporting word. For example:

| kdo | Tedy se dohodněme, kdo se musí vzdát. (=Let's agree on who has to give it up) |
| :--- | :--- |
| co | Ing. Pospišil ze zemědělského referátu ví, co řiká. (=Ing. Pospišil knows what he is saying) <br> Nevím ovšem, s čím přijedou Čínanky. (=I don't know what the Chinese come with) |
| kdy | Neřekl, kdy př̌ijde. (=He didn't tell me when he comes back) |
| jak | Ministří sedmi ekonomicky nejvyspělejších zemí světa se pokoušejí stanovit, jak a jakou <br> rychlostí se má svět ubirat po "informační dálnici". (=The ministers... try to decide on how <br> and how fast the world should...) |
| kde | Nevím, kde je. (=I don't know where he is) |
| jaký | Uživatelé netuší, jaké množství funkcí tato zařízení integrují. (=The users don't have a clue <br> how many functions these devices have) |

More examples:
$\leq T o, z ̌ e\rangle$ tehdy zvítězila.PAT první koncepce, považuji za správné. (=I approve of the fact that (lit. that that) the first conception won)

Problém spočívá $\leq v$ tom, že $>$ zařízení mají.PAT za lůžko tím méně peněz, čím déle na něm pacient leži. (=The problem lies in the fact that (lit. that that) the facilities have...)

Hlavním smyslem je držet v šachu $\langle\underline{t y}\rangle$, kdo právě vládnou.PAT ( $=$ The main reason is to keep at bay those who have the power at the moment)

Nesprávně rozhodují $\leq$ o tom $>$, co do priomyslových živností patří.PAT (=They don't make right decision as to what belongs to..)

For more on supporting expressions, see Section 6.5.3, "Supporting expressions".
Forms of the Patient with nouns. The basic forms of the Patient as a modification of nouns are:

- noun in a non-prepositional case form.

The most common forms:
genitive odhad vývoje (=lit. estimate (of) development)

- prepositional phrase.

The most common forms:

| k+3 | připravy k invazi (=preparations for the invasion) |
| :---: | :---: |
| na+4 | vliv evropských jazyků na jazyk český (=influence of various European languages on Czech) |
| nad+7 | správa nad autonomním územím (=administration of (over) the autonomous territory) |
| o+4 | pokusy o artikulaci odlišných názorů (=attempts at formulating different views) |
| o+6 | dokument o ekonomicko-obranné unii (=lit. document about economic-defence union) |
| od +2 | odklon politiku od reality (=the politicians' departure from reality) |
| po+6 | voláni po novém zákonu (=call for a new law) |
| proti+3 | protest proti násilnému poangličtování ostrova (=a protest against the violent Anglicizing of the island) |
| před+7 | náskok před druhou Slavií (=a head start on Slavia) |
| s+7 | souhlas Francouzů s maastrichtskými dohodami (=the French approval of the Maastricht Treaty) |
| $\mathrm{v}+6$ | podil americké produkce ve vysilání ČT (=the percentage of American production in the ČT programs) |
| z+2 | strach ze zkoušky (=fear from the exam) |
| za+4 | vina za konflikt (=guilt for the conflict) |

- the infinitive.

Examples:
důvod prijijut.PAT (=a reason to come)
šance vyhrát.PAT (=a chance of winning)

## - dependent clause.

The Patient (modifying a noun) can also have the form of a dependent clause. The forms are similar to the forms of the Patient modifying verbs.

Examples:

Př̌ičin, proč se proud peněz do palestinské ekonomiky zatím neuvolnil.PAT, je několik. (=There are more reasons why the flow of money to Palestinian economics has not released yet)

Zpráva, $\leq \check{z} e>$ bratr vyhrál.PAT , se rychle roznesla. (=The news that my brother won spread fast)
vidina $\leq$ toho, že $\rangle$ vyhraje. PAT (=the vision of (lit. that that) winning)

Forms of the Patient with adjectives. The Patient dependent on an adjective has usually the form of a noun in a non-prepositional forms or that of a prepositional phrase.

Examples:
oficiální doktrína zaměřená proti homosexuálům.PAT (=the official doctrine oriented against homosexuals)
lidé odpovědni za deportace. РАт Židì (=the people responsible for the deportations of Jews)
Moskvě.PAT nesympatická nabidka (=an offer unattractive to Moscow)

### 7.2.2.1. Borderline cases with the PAT functor

Border with the APP and MAT functors. The PAT functor is bordering on the APP and MAT functors in some cases (see Section 7.10, "Specific adnominal functors"). For more on this border see Section 6.2.3.2.3.3, "Borderline between the Patient and the MAT and APP functors".

Border with the ACT functor. When determining the first and second argument (ACT and PAT) one of which has the dative form, it may be hard to tell which is which; i.e. PAT may border on ACT. For more on this see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)". The precise rules for determining the functor value are still to be established.

Border with the DIR1 functor. With verbs of change (from one state into another), the PAT functor is bordering on the DIR1 functor (see Section 7.4.1, "DIR1"). For more on this border see Section 6.2.3.1.3.4, "The borderline between the PAT, ORIG and EFF arguments and the DIR1 and DIR3 adjuncts".

### 7.2.3. EFF

Definition of the EFF functor
EFF (Effect) is a functor used for arguments referring to the result of the event. In those cases when the argument shifting applies, a modification is assigned the EFF functor if the verb (noun, adjective) has at least three arguments.

For the rules regarding the argument shifting, see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)". The EFF functor is defined primarily semantically. In those cases when the argument shifting applies, the EFF functor is assigned to the argument with the cognitive role of the result of the event only if the verb (noun, adjective) has at least three arguments; if the verb has two arguments and the second one has the cognitive role of the result of the event, the argument gets the PAT functor!

EFF refers to the result of the event, in the broad sense of the word, especially it refers to:

- the quality/property or state the Patient has in the course of the event (the so called (obligatory) predicative complement).

Examples:
Považoval Pavla za odbornika.EFF (=He considered Pavel a professional)

Angažoval ho jako mluvčiho.EFF (=He hired him as a spokesman)
Činili si život snesitelným.EFF (=They made each other's life bearable)
Zachovali památku neporušenou.EFF (=They kept the memory intact)
Slyšet hodiny tikat.EFF (=to hear the clock tick)

- the final state - with verbs of change (from one state into another)

Examples:
Zvýšili počet voličư z $50 \%$ na 75 procent.EFF (=They increased the number of their voters from $50 \%$ to $75 \%$ )

Změnila účes z kudrn na rovné vlasy.EFF (=She changed her hairstyle from curly hair to straight hair)

Matka předělala dětem loutku z kašpárka na čerta.EFF (=Mother remade the puppet from the jester to the devil)

- the dictum, i.e. what is said, thought, perceived.

Examples:
Petr vyprávěl o dovolené zábavné historky.EFF (=Petr told us amusing stories about his holiday)
O tom nevím nic.EFF (=I know nothing about it)
Řekl, že nepřijde.EFF (=He said he would not come)

- something with respect to what the Patient is treated in a certain way.

Examples:
Srovnával Jana s Pavlem.EFF (=He compared Jan with Pavel)
Bránili město před Švédy.EFF (=They defended the town against the Swedes)
Spojil procházku s nákupem.EFF (=He combined the walk with shopping)

NB! The EFF functor is assigned to some effective root nodes of direct speech. For more on this see Section 8.3, "Direct speech".

Possible forms. The argument with the EFF functor is defined mainly semantically and it typically occurs in semantic cases (the instrumental, prepositional phrases), which do not change as a consequence of derivation. The Effect argument of verbs, nouns and adjectives is therefore expressed by essentially the same forms. The basic forms of the EFF modification are:

## - noun or adjective in a non-prepositional case.

The most common forms:

| nominative | My tomu řikáme efekt sněhové koule. (=We call it the snowball effect) |
| :--- | :--- |
| genitive | Problémů s benzínem budou ušetřeni i turisté mírici do Itálie. (=Also the turists <br> heading for Italy will be spared the problems with gas) |


| accusative | Vypráví přiběh mladého muže, který se vydává do hor. (=He is telling the story of <br> a young man...) |
| :--- | :--- |
| instrumental | Novým místopředsedou byl zvolen Alexandre de Merode z Belgie (=Alexandre de <br> Merode from Belgium was elected the new vice-chairman); zásobování teplem (=lit. <br> supplying with_heat) |

- noun or adjective in a prepositional case.

The most common forms:

| do +2 | Stárková přetlumočila do češtiny knihu Psi z ráje. (=S. translated the book into Czech); sestavování stolů do řad (=arranging the tables into rows) |
| :---: | :---: |
| k+3 | Starosta byl odsouzen $k$ trestu odnětí svobody na tři roky. (=The mayor was given a prison sentence) |
| na+4 | Premiér byl slavnostné povýšen na majora v záloze ( $=$ The Prime Minister was promoted to the rank of (reserve) major); zvýšení počtu imigrantio z 20000 na 100000. (=increasing the number of immigrants from 20000 to 100 000); odhad nákladů na 300000 Kč (=cost estimate at 300000 Kc ), rozdělení na nezávislé společnosti ( $=$ division into independent companies), transformace podniku na akciovou společnost (=transformation of the company into a join-stock company) |
| o+4 | doplnění licence o 11 regionálnich kanálů (=the extension of the license by 11 regional channels); zápas o Slovakia Cup (=a Slovakia Cup match) |
| proti+3 | Mají památky ochránit proti vlivu imisí a škodlivého spadu. (=They are supposed to protect the monuments against the harmful influence...); ochrana proti zcizení nápadů (=protection against stealing ideas) |
| před+7 | bránit město před Švédy (=to protect the town against the Swedes); ochrana před konkurencí (=protection from competition) |
| s+7 | Poslanec Kraus si podle Kalouska opět plete hrušky s jablky. (=lit. K. mixes pears with apples (i.e. incompatible things)); srovnání cen s cenami za hranicí (=comparing the prices with the prices abroad) |
| v+4 | Nový ředitel by měl přeměnit ČSÚ v moderní instituci. (=the new manager should transform ČSÚ into a modern institution) |
| za+4 | Oba byli zvoleni za členy výkonného výboru. (=They were both elected members of..); výměna Bojnického oltáře za deset gotických deskových obrazů (=the exchange of B.o. for ten panel paintings) |


| jako+1 | Premiér Klaus je vnímán jako reprezentant stran vládní koalice. (=The Prime Minister <br> Klaus is perceived as a representative of..) |
| :--- | :--- |
| jako+4 | Znal ji už jako malou holčičku. (=He knew her already as a young girl) |

NB! The Effect can also be expressed by prepositional phrases that have various quantificational meanings: kolem +2 , okolo +2 , $n a+4$, po +6 , přes +3 etc. For example:

Vyslovil o tom přes dvacet myšlenek.EFF (=He uttered more than twenty thoughts about it)
For more on these forms, see Section 6.2.2.3, "Productive changes in the surface form (not specified in the valency frames)".

## - the infinitive.

Examples:
Viděl jsem umirat.EFF děti na AIDS. (=I saw children die of AIDS)

Michail Gorbačov nechal padnout.EFF berlinskou zed'. (=M.G. let the Berlin Wall fall)

- dependent clause.

The most common (subordinating) conjunctions:

| aby | Ve výzvě se praví, aby lidé nedůvěřovali cirkvi. (=The proclamation advises <br> people not believe the Church) |
| :--- | :--- |
| at' | Starosta mu sice do telefonu řekl, at' se neplaší, ale mezitím už potrubní poštou <br> svištěly patrony. (=The mayor told him not to panic..) |
| jestli/jestliže/-li | Z výsledků lze usoudit, jestli nákup nepřináší př̌lišné riziko. (=It is possible to <br> deduce from the results whether the purchase involves too high a risk) |
| zda/zdali | Neuvedl však, zda jej ODA podpoří. (=He didn't say whether ODA will support <br> him) |
| že | Zopakoval, že nemá mandát k rozhodnutí o úplném stažení vojsk. (=He repeated <br> that he is not in a position to decide..) |

A dependent clause the effective root node of which is assigned the EFF functor can also be introduced by a variety of relative elements, often with a supporting word. For example:

| co | Píše jen to, co čtenáŕr žádá. (=He only writes what the readers want to read) |
| :--- | :--- |
| kdy | Neřekl jim, kdy přijde. (=He didn't tell them when he comes) |

More examples:
Soud podminil ponechání Saganové na svobodě <tím, že> světoznámá autorka románů podstoupí.EFF podstoupi protidrogovou léčbu. (=The court made leaving Sagan free dependent on (lit. that that she..) her undergoing the antidrug treatment)

Znaková řeč byla označována $\leq z a$ to $>$, co neslyšicí odlišuje. EFF od slyšici většiny. (=The sign language was labelled as something (lit. that that) distinguishing the deaf from the majority of population)

For more on supporting expressions, see Section 6.5.3, "Supporting expressions".

### 7.2.3.1. Borderline cases with the EFF functor

Border with the ADDR functor. In cases like bránit děti před nebezpečím (=to protect children from danger) vs. bránit majetek před zloději (=to protect the property from thieves), the EFF functor borders on the $A D D R$ functor (see Section 7.2.4, "ADDR"). For more on this border see Section 6.2.3.1.4, "Finding the borderline between the individual argument functors".

Border with the DIR3 functor. With verbs of change (from one state into another), the EFF functor is bordering on the DIR3 functor (see Section 7.4.3, "DIR3"). For more on this border see Section 6.2.3.1.3.4, "The borderline between the PAT, ORIG and EFF arguments and the DIR1 and DIR3 adjuncts".

### 7.2.4. ADDR

Definition of the ADDR functor

ADDR (Addressee) is a functor used for arguments with the cognitive role of the Addressee of the event. In those cases when the argument shifting applies, a modification is assigned the $A D D R$ functor if the verb (noun, adjective) has at least three arguments.

For the rules regarding the argument shifting, see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)". The ADDR functor is defined primarily semantically. In those cases when the argument shifting applies, the ADDR functor is assigned to the argument with the cognitive role of the Addressee of the event only if the verb (noun, adjective) has at least three arguments; if the verb has two arguments and the second one has the cognitive role of the Addressee of the event, the argument gets the PAT functor!

The modification with the ADDR functor refers to the Addressee (typically animate) of the event in a very broad sense of the word, especially:

- the Addressee with verbs of giving (in the broadest sense of the word).

Examples:
Dal ditěeti.ADDR hračku. (He gave the child a toy)
Řekl synovi.ADDR pravdu. (=He told his son the truth)
Učí dětí.ADDR angličtinu. (=He teaches children English)

- the original possessor with verbs of taking something away.

Examples:
Vzal dítěti.ADDR hračku. (=He took the toy from the child)
Ukradl cizinci.ADDR peněženku. (=He stole a wallet from a foreigner)

- the Addressee the event is directed at.

Example:
Obrátil se na soud.ADDR s problémem. (=He turned to the court with a problem)

Possible forms. The argument with the ADDR functor is defined mainly semantically and it typically occurs in semantic cases (the dative, prepositional phrases), which do not change as a consequence of derivation. The Addressee argument of verbs, nouns and adjectives is therefore expressed by essentially the same forms. The basic forms of the ADDR modification are:

## - noun in a non-prepositional case.

The most common forms:

| dative | Našemu zpravodaji to řekl tiskový mluvčí vlády. (=The press agent of <br> the government told it to our reporter); finančni pomoc Slovensku <br> (=financial help to Slovakia) |
| :--- | :--- |
| accusative | Klaus ujistil přitomné, že ČR bude spolehlivým partnerem. (=Klaus <br> assured the present parties that CR will be a reliable partner) |
| nominative (in passive - <br> with certain verbs) | Nemajetní studenti mohli být osvobozeni od školného. (=Poor students <br> could be freed from the tuition) |

## - prepositional phrase.

The most common forms:

| $\mathrm{k}+3$ | K vojákům promluvil ruský premiér. (=The Russian Prime Minister spoke to the soldiers) |
| :--- | :--- |


| mezi+4 | Zbytek likvidačniho zůstatku se rozdělí mezi společniky rovným dílem. (=The rest of the <br> money will be split between the partners) |
| :--- | :--- |
| na+4 | Majitel převedl smluvně své povinnosti na nájemnika. (=The owner delegated his duties <br> to the tenant); uvalení vazby na obviněného (=lit. imposing detention on (the) suspect) |
| na+6 | výzkum veřejného mínění provedený na souboru 1097 obyvatel (=public opinion poll <br> made on an array of 1097 citizens) |
| nad+7 | Smašnovová letos vyhrála v Pařiži nad Novotnou. (=S. beat N. in Paris this year); rozsudek <br> nad zločincem (=lit. sentence over criminal) |
| pro+4 | Zásilky jsou určeny zejména pro Skandinávii. (=The shipments are especially for <br> Scandinavia) |
| proti+3 | zápas proti silnému soupeři (=fight against a strong rival) |
| před+7 | Jihoafričan Albertyn vede před Puzarem z Itálie. (=lit. Southafrican Albertyn is_leading <br> ahead_of Puzaro from Italy) |
| $\mathrm{s}+7$ | Výzbroj armád zemí střední a východní Evropy se musí sjednotits vybavením vojsk NATO. <br> (=The weaponry of the Central and East European countries has to be united with the <br> equipment of NATO); rozhovory s prezidentem (=talks with the president) |
| vůči+3 | projev necitlivosti vǔči mrtvým (=insensitivity towards the dead) |

NB! The Addressee can also be expressed by prepositional phrases that have various quantificational meanings: kolem +2 , okolo +2 , $n a+4$, po +6 , přes +3 etc. For example:

O svém talentu přesvědčil okolo dvaceti posluchačů.ADDR (=He persuaded about twenty listeners..)
For more on these forms, see Section 6.2.2.3, "Productive changes in the surface form (not specified in the valency frames)".

## - dependent clause.

Dependent clauses whose effective root nodes are assigned the ADDR functor are most often introduced by the relative pronoun $k d o$ ( $=$ who), or a subordinating conjunction, usually in combination with a supporting expression:

| kdo | varovaní těm, kdo staví načerno. (=warning to those who build without permission); Vláda |
| :--- | :--- | je ten nejlepši mechanismus, který může pomoci těm, kdo si sami pomoci nedokážou. (=The government is the best mechanism able to help those who cannot help themselves)


| aby | Nebo byste dal přednost tomu, aby by vaše dítě vyri̊stalo delší dobu uprostřed běžné populace? <br> (=Or would you prefer it if your child grew up...) |
| :--- | :--- |
| že | Nejvic se prodalo Talmudu Elie Wiesela, ale to se dá přičist tomu, že lidé jsou zvědaví a <br> hledají základní informace. ( $=\ldots$ it can be ascribed to the fact that people are curious and <br> seek the basic information) |

More examples:
Banka raději dá přednost $\leq$ tomu, že $>$ nám ukáže.ADDR , jakými metodami ziskává náš bankovní sektor zhruba sedmitisicové nadhodnocení svých pracovnikỉ proti celostátní průměrné mzdě. (=The bank will prefer to show us which methods...)

Organizátoři to přičítají <tomu, že $>$ některé hráčky se zalekly. ADDR silného dvojbloku Habšudová - Hingisová. (=The organizers attribute it to the fact that some players...)

For more on supporting expressions, see Section 6.5.3, "Supporting expressions".

### 7.2.4.1. Borderline cases with the ADDR functor

Border with the BEN functor. Semantically, the ADDR functor is very close to the BEN functor (see Section 7.9.1, "BEN"). For more on this border see Section 6.2.3.1.3.2, "The borderline between the Addressee and Beneficiary".

Border with the EFF functor. In cases like bránit děti před nebezpečím (=to protect children from danger) vs. bránit majetek před zloději (=to protect the property from thieves), the ADDR functor borders on the EFF functor (see Section 7.2.3, "EFF"). For more on this border see Section 6.2.3.1.4, "Finding the borderline between the individual argument functors".

Borders with the locative/directional functors. With a number of verbs, the ADDR functor borders on locative/directional functors (see Section 7.4, "Locative and directional functors"). For more on this border see Section 6.2.3.1.5.2, "Addressee vs. locative/directional adjuncts".

### 7.2.5. ORIG

Definition of the ORIG functor
ORIG (Origo)is a functor used for arguments with the cognitive role of the origin/source of the event. In those cases when the argument shifting applies, the ORIG functor is assigned to a modification if the verb (noun, adjective) has at least three arguments.

For the rules regarding the argument shifting, see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)". The ORIG functor is defined primarily semantically. In those cases when the argument shifting applies, the ORIG functor is assigned to the argument with the cognitive role of the origin/source of the event only if the verb (noun, adjective) has at least three arguments; if the verb has two arguments and the second one has the cognitive role of the origin/source of the event, the argument gets the PAT functor!

With nouns not referring to events, the ORIG modification has the character of a free modification (adjunct). For more on this see Section 6.2.3.2.3.2, "Origo as a modifier of nouns".

The modification with the ORIG functor refers to the origin/source of the event, in a very broad sense of the word:

- the material something is made from.

Examples:
Vyráběli nábytek ze dřeva.ORIG (=They made furniture out of wood)
Uvařila polévku z masa.ORIG (=She cooked some soup from the meat)
nádoba zplechu.ORIG (=a dish made of plate)
kaluž $\underline{z}$ tajíciho sněhu.ORIG (=a puddle from the melting snow)

- the circumstances, event or state on the basis of which something comes into existence.

Examples:
Na malých kroužcích.ORIG založili novou organizaci. (=They build a new organization on small groups)

Vybudoval kariéru na cizí práci.ORIG (=He built his career on other people's work)

- the original owner (usually animate), the source something comes from.

Examples:
Ziskal na dětech.ORIG slib. (=He got a promise from the children)
Zakoupili stroje od výrobce.ORIG (=They bought the machines from the producer)
Slyšel o neštěstí od učitele.ORIG (=He heard about the accident from the teacher)
dárek od maminky.ORIG (=a present from his mom)
miliarda od světové banky.ORIG (=one billion from the World Bank)

- the initial state - with verbs of change (from one state into another)

Examples:
Zdražili vstupenky z 500.ORIG na 550 Kč. (=The price of the tickets rose from 500 to 550 Kc )
Prudce se zvýšily mezibankovní úrokové míry z 6,05.0RIG na 7,53 procenta. (=... increased from 6.05 to 7.53 per cent)

Předělala loutku z kašpárka.ORIG na čerta. (=She remade the puppet from the jester into the devil)

Possible forms. The argument with the ORIG functor is defined mainly semantically and it typically occurs in prepositional phrases, which do not change as a consequence of derivation. The Origo argument of verbs, nouns and adjectives is therefore expressed by essentially the same forms. The basic forms of the ORIG modification are:

## - prepositional phrase.

The most common forms:

| mezi+7 | Uvedl anekdotu o člověku, který musí vyskočit z letadla a může si vybrat mezi <br> výškomérem a padákem. (=He told us a story about a man who has to jump out of <br> an airplane and has to choose between the altimeter and a parachute) |
| :--- | :--- |
| na+6 | Nékteré firmy mohou na novém zaměstnanci vyžadovat také pracovní posudek. (=Some <br> companies may ask new employees to submit also references from their previous <br> employers) |
| od+2 | Asi před týdnem jsem dostal dopis od K. Řeháka z Prahy. (=A week ago I got a letter <br> from K.K.R. from Praha) |
| po+6 | Firma požaduje po ministerstvu financí, aby by zrušilo veškerá povolení kprovozování <br> číselných her Sazky. (=The company is demanding of the Ministry of Finance to <br> cancel all the permissions...) |
| ze strany+2 | Ze strany unie je patrná tendence, přijímat několik zemí najednou. (=There is a clear <br> tendency, from the EU, to accept several countries at once) |

## - dependent clause.

Dependent clauses whose effective root nodes are assigned the ORIG functor are most often introduced by the relative pronoun co (=what), or a subordinating conjunction, usually in combination with a supporting expression:
co Bude ovšem nezbytné mistní lidi ještě přesvědčit, že na palivo ziskané z toho, co byli po staletí zvyklí jen jíst, se dá skutečně také jezdit. (=It will be necessary to persuade people that fuel made from the thing they were used to eating for centuries can be used in their cars as well)
že Netají se radostí z toho, že sociálnědemokratické Právo lidu po delší pauze opět vychází. (=They are happy that Právo lidu is published again)

For more on supporting expressions, see Section 6.5.3, "Supporting expressions".

### 7.2.5.1. Borderline cases with the ORIG functor

Border with the DIR1 functor. Semantically, the ORIG functor is very close to the DIR1 functor (see Section 7.4.1, "DIR1"). For more on this border see Section 6.2.3.1.3.3, "The borderline between Origo and DIR1". The DIR1 functor is also very close to the ORIG functor after verbs of change. For more on this border see Section 6.2.3.1.3.4, "The borderline between the PAT, ORIG and EFF arguments and the DIR1 and DIR3 adjuncts".

Border with the HER functor. Semantically, the ORIG functor is very close to the HER functor (see Section 7.9.3, "HER"). For more on this border see Section 7.9.3.1, "Borderline cases with the functor HER".

### 7.3. Temporal functors

Temporal functors form a semantically diferentiated set of functors of free modifications which express various temporal points or intervals that the content of a governing modification relates to. Individual temporal functors differ according to which of the possible questions about time they answer.

## List of the temporal functors

- TFHL
- THL
- THO
- TFRWH
- TOWH
- TPAR
- TSIN
- TTILL
- TWHEN

Modifications with temporal functors provide temporal localization of events or states, therefore they relate primarily to verbs, nouns, and adjectives denoting event. However, they can also relate directly to nouns not denoting events (e.g. cukroví od Vánoc.TFRWH ( $=$ lit. sweets since Christmas), domy $\underline{v}$ minulém stoleti.TWHEN (=lit. houses in the last century)).

The sections devoted to individual functors are arranged in alphabetical order according to the abbreviations used for the functors. Disregarding the alphabetical order, the list begins with the section on the functor TWHEN as it conveys the most general temporal meaning.

### 7.3.1. TWHEN

Definiton of the TWHEN functor
The TWHEN functor (temporal : when) is a functor for a free modification that expresses time answering the question "when?".

A modification with functor TWHEN localizes the event or state expressed by a governing word in a particular moment or interval through direct time specification (v pět hodin (=lit. at five o'clock), letos (=this year)), or through specification of the temporal relation to another event (před odjezdem (=lit. before departure), po snidani (=lit. after breakfast)).

Subfunctors. The TWHEN functor is further specified by subfunctors. See Section 7.13.1.9, "Subfunctors with the TWHEN functor".

Forms. The basic forms of modifications with the TWHEN functor are:

## - prepositional phrase.

The most common forms:

| k+3 | $k$ večeru (=lit. towards evening); k 15.ř̌jnu (=lit. towards 15th October) |
| :---: | :---: |
| kolem+2 | kolem poledne (=lit. around noon) |
| koncem+2 | koncem roku (=by the end of the year) |
| mezi+7 | mezi dvěma světovými válkami (=between the two world wars) |
| na+4 | na podzim (=lit.in autumn) |
| na+6 | na úsvitě (=lit. by dawn); na konci dne (=at the end of the day) |
| o+6 | o Velikonocich (=lit. at Easter) |
| okolo+2 | okolo druhé hodiny (=around two o'clock) |
| po+6 | po jeho přichodu (=after his arrival); po večerech (=in the evenings) |
| počátkem+2 | počatkem měsice ( $=$ at the beginning of the month) |
| postupem+2 | postupem času (=in the course of time) |
| před+7 | před hodinou (=an hour ago); pred výletem (=before the trip) |
| při ${ }^{\text {+ }}$ 6 | při práci (=lit.during work); při loňských povodnich (=during the floods last year) |
| při př̌́ležitosti +2 | při přiležitosti jeho narozenin (=on the occasion of his birthday) |
| u př́ležitosti+2 | u př̌ležitosti jeho narozenin (=on the occasion of his birthday) |
| v+4 | $v$ neděli (=lit. on Sunday) |
| v+6 | $v$ minulém století (=in the last century) |
| v době+2 | $v$ době konáni konference (=at the time of the conference) |
| v období+2 | v obdobi druhé světové války (=during World War II) |
| v průběhu+2 | Stalo se to v průběhu cesty. (=It happened during the journey.) |
| v rámci+2 | $v$ rámci oslav (=within the celebrations) |
| za+4 | Přijde za týden. (=He will come in a week.) |
| za+2 | Psal/Napsal to za minulého ředitele. (=He wrote it under the last director.) |
| začátkem+2 | začátkem letošní sezóny (=by the beginning of this year's season) |
| závěrem+2 | závěrem letošní sezóny (=by the end of this year's season) |

Example:
Po jednání.TWHEN s premiérem odjel domů. (=lit. After (the) negotiation with (the) prime_minister (he) went home.) Fig. 7.10

## - noun in a non-prepositional case.

The most common forms:

| accusative | Sejdeme se 2. února. (=lit. (We) shall_meet - 2nd February.) |
| :--- | :--- |
| instrumental | Zákon vstupuje v platnost dnem podpisu. (=lit. (A) law comes into effect by the day <br> of signature.) |

## - adverbial expressions.

Examples:
Dočkáme se brzy.TWHEN rychlé dopravy. (=lit. (We) shall_wait_to_see soon fast transport.)
Součástka se časem.TWHEN opotřebuje. (=(The) component - in_some_time wears_out.)
Dřive.TWHEN se měl mnohem lépe. (=lit. Earlier (he) - was much better.)
Hned.TWHEN se vrátím. (=lit. At_once (I) will_be_back.)
Obě země se jednou.TWHEN začlení do sjednocené Evropy. (=lit. Both countries -one_day become_intergrated into united Europe.)
$\underline{K d y}$. TWHEN se vrátiš? (=When - will_(you)_be_back?)
Někdy.TWHEN ti to vynahradim. (=lit. One_day (for) you it (I) will_make_up.)
Neprodleně.TWHEN se máte dostavit do ředitelny. (=lit.Without_delay (you) yourself are (to) present to headmaster's office.)

Okamžitě.TWHEN se hlaste u vedouciho. (=lit. Immediately - report to (the) boss.)
Dílo bylo vydáno až posmrtně.TWHEN (=lit.(The) work was published only posthumously.)
Zitra.TWHEN má být už hezky. (=lit.Tomorrow (weather) should be already nice.)

## - dependent clause.

The most common forms:

| až | Najíme se, až vyjdeme. (=We will eat only when we set off.) |
| :--- | :--- |
| jak / jakmile | Jakmile se vrátím, budeme pokračovat. (=As soon as I get back we shall con- <br> tinue.) |
| jen / jenom | Jen doběhl, začalo pršet. (=As soon as he came it started raining.) |
| jen co / jenom co | Jenom co doběhl, začalo pršet. (=As soon as he came it started raining.) |
| kdy | Pracoval, kdy se mu zachtělo. (=He worked when he wanted to.) |
| když | Když babička dovyprávěla, všechny děti už spaly. (=By the time granny finished <br> the tale, all children were asleep.) |
| než / nežli | Než se naobědval, umyl si ruce. (=Before he had lunch he washed his hands.) |
| poté - co | Irák riskuje dalšít útok poté, co inspektoři OSN opustili zemi. (=Iraq risks an- <br> other attack after the UN inspectors left the country.) |
| sotva / sotvaže | Sotva se naučil jeden jazyk, už se učí další. ( $=$ As soon as he learnt one language <br> he has been learning another one.) |

NB! A similar temporal meaning can be expressed by a dependent clause modifiying a noun (its effective root node, however, is assigned the RSTR functor), e.g.:

Vokamžiku.TWHEN , co jsem ho spatřil.RSTR, jsem věděl, že je to on . (=lit. At (the) moment when (I) him saw (I) - knew that was it him.)
$V$ době.TSIN, kdy jsem ho navštívil.RSTR, nebyl doma.(=At (the) time when (I) - him visited (he) was_not at_home.)

Agreeing form of an adjective. With nouns denoting events (nouns ending with -ní and $t i$; see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events"), TWHEN modifications can also be expressed by agreeing forms of adjectives.

Examples:
budoucí.TWHEN zvyšování výroby (=lit. future increase in production)
dalšíTWHEN zvyšování sazeb (=lit. another increase in rates)
dnešní.TWHEN jednání (=lit. today's negotiation)
jarní.TWHEN vykročení (=lit. spring start)
letošní.TWHEN sklizení (=lit. this year's harvesting
minulé.TWHEN jednání (=lit. last negotiation)
okamžité.TWHEN podání (=lit. immediate serve)
pondělní.TWHEN prohlášení Daniela Kroupy (=lit. Monday declaration (of) Daniel Kroupa)
poslední.TWHEN snižení stavu (=lit. last decrease (in) number_(of)_workers)
první.TWHEN zasedání vlády (=lit. (the) first session (of) (the) government)
předchozí.TWHEN sčitání obyvatelstva (=lit. (the) previous census -)
původní.TWHEN rozhodnutí vlády (=lit. (the) original decision (of) (the) government)
včerejší.TWHEN úččtování (=lit. yesterday's account)
vikendové.TWHEN nicnedělání (=lit. weekend lounging)

Figure 7.10. The TWHEN functor


Po jednání s premiérem odjel domů. (=lit. After (the) negotiation with (the) prime_minister (he) went home.)

### 7.3.1.1. Borderline cases with the TWHEN functor

Borders between individual temporal functors. Modifications with the TWHEN functor represent temporal modifications proper. They localize the event or state that is expressed by the governing word on a time line with respect to a given moment or time interval. The validity of an event with respect to a moment or to an interval on the time line can also be expressed by temporal modifications with the functors TTILL and TSIN, TPAR, TFRWH and TOWH (to which the TWHEN functor is semantically closely related).

The functors TTILL (see Section 7.3.9, "TTILL") and TSIN (see Section 7.3.8, "TSIN") , however, express the moment or time interval in which the event either begins (TS IN), or ends (TTILL), hence, they do not say "when?" but rather "since when?", or "till when?". The TPAR functor (see Section 7.3.7, "TPAR") localizes the governing event with respect to another event, or it refers to the time interval the governing event is synchronized with, or within the frame of which it is effective. Also the TOWH (see Section 7.3.6, "TOWH") and TFRWH functors (see Section 7.3.3, "TFRWH") have a specific meaning of situating the event on the time line; however, these functors, unlike the TWHEN functor, do not situate the event that is expressed by the governing word and therefore these temporal adverbials can occur in one construction together with those bearing the TWHEN functor (which situates the governing event on the time line), e.g.:

Včera.TWHEN přeložil výuku z pátku.TFRWH na pondělí.TOWH . (=lit. Yesterday (he) postponed class from Friday to Monday.)

Other temporal functors do not directly situate the event on the time line but they rather express various temporal - degree meanings linked to the event. However, this group of functors is not entirely different from the TWHEN functor, particularly in the cases in which the temporal - degree meanings ("how long?", "after how long?", "how many times?" and "how often?") superimpose upon the basic meaning "when?". If the temporal - degree meaning follows directly from the temporal modification, this modification is assigned a temporal functor which expresses that particular meaning; however, if the
temporal - degree meaning follows from some other aspects (from the context, verbal aspect etc.) the modification is assigned the TWHEN functor.

See also Section 7.3.5, "THO", Section 7.3.4, "THL" and Section 7.3.2, "TFHL".
Various temporal modifications can be identical in their form and especially in the cases in which they are expressed with the help of a primary preposition, one expression can express more temporal meanings. The choice of the functor in a particular construction is usually determined by the context. Cf.:

- Přijede za dvě hodiny.TWHEN (=lit.(He) will_come in two hours.)
- Napsal to za dvě hodiny.THL (=lit.(He) wrote it in two hours.)
- Za dvě hodiny.TPAR nic neudělal. (=lit. In two hours (he) nothing did.)

Borders with other functors. The TWHEN functor can border also on functors of other than temporal modifications. Identical formal means (particularly identical prepositions) and the use of an abstract expression also leads to blurred differentiation between temporal and other functors, esp. locative functors. Cf.:

- Sdělím ti to až na schůzi (=lit. (I) will_tell you it only at (the) meeting.).

The modification na schůzi (=lit. at (the) meeting) can have a temporal meaning (providing an answer to the question "when?" - TWHEN), but it can also express a locative meaning (providing the information on the place where the communication takes place - the LOC functor).

- Při práci si nezpívá.(=lit. By work (he) (to) himself does_not_sing.)

The modification při práci (=lit. by work) can express either a condition (if he works, he does not sing to himself), or, again, simply a temporal meaning, answering the question "when?".

There are no firm rules for the unambiguous assignment of the functors in these cases; the functor is chosen on the basis of the available context and the annotator's consideration.

### 7.3.2. TFHL

Definition of the TFHL functor

The TFHL functor (temporal: for how long) is a functor for a free modification that expresses a temporal meaning related to the question "for how long?"; it gives the length of duration of a state which is a result of the event expressed by the governing word.

Modifications with the TFHL functor are usually expressed by direct specification of time (přijel na tři dni (=lit. (He) came for three days.)).

Forms. The basic forms of TFHL modifications are:

## - prepositional phrase.

The most common forms:

| na+4 | Přijel na tři dni. (=He came for three days.); práce na rok (=work for a year) |
| :--- | :--- |
| po+4 | Po dva dny se jí zúčastní i český ministr bez portfeje. (=For two days the Czech minister <br> without portfolio will also take part.) |
| pro+4 | Byla přijata operativní opatření pro zbytek roku. (=Operational measures were accepted <br> for the rest of the year.) |

Example:

Odjel na celý den.TFHL (=lit. (He) left for all day.) Fig. 7.11

## - adverbial expressions.

Examples:
Je dlouhodobě.TFHL nemocen. (=lit. (He) is (for) (a) long_term ill.)
Používá se jen dočasně.TFHL (=lit. (It) is used only temporarily.)
Doživotné.TFHL budou mít nouzi. (=lit. Lifelong (they) will have need.)
Na venkově bydlí natrvalo.TFHL (=lit. In (the) country (he) lives permanently.)
Odešel navěky.TFHL (=lit. (He) left forever.)
Navždy.TFHL vám budu vděčný. (=lit. Always (to) you (I) will be grateful.)
Bydlí tam přechodně.TFHL (=lit. (He) lives there temporarily.)
Výhledově.TFHL je to zbytečné. (=lit. Prospectively is it useless.)

NB! A modification with the TFHL functor is usually not realized by a dependent clause. A similar temporal modification, modifying a noun, however, can be expressed by a dependent clause (its effective root node is assigned the RSTR functor), e.g.:

Půjčili jsme si od nich auto na dobu.TFHL, co budeme.RSTR na výletě . (=lit. (We) borrowed -their car for (the) time when (we) will_be on (a) trip.)

Agreeing form of an adjective. With nouns refering to events (i.e. nouns ending with -ní and $t i$; for details see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events"), TFHL modifications can also be expressed by agreeing forms of an adjectives.

## Examples:

kontejnery určené k dlouhodobému.TFHL uskladňování vyhořelého paliva z atomových reaktorů (=lit. containers reserved for long_term storage (of) burnt_out fuel from nuclear reactors)
dočasné.TFHL vyslání několika tisíc amerických vojáků do Chorvatska k ochraně mírových sil OSN (=lit. dispatch (of) several thousands American soldiers to Croatia to protect (the) peace forces (of) (the) UN)

Figure 7.11. The TFHL functor


Odjel na celý den. (=lit. (He) left for all day.)

### 7.3.2.1. Borderline cases with the TFHL functor

Border with the TOWH functor. The TFHL functor is close both in its semantics and form to temporal modifications with the meaning "for when?" (see Section 7.3.6, "TOWH"). In a particular construction, however, no ambiguity arises. TFHL modifications refer to the length of duration of an event/state, to an interval; TOWH modifications, on the other hand, do not refer to the legth of duration, but rather to a moment in time. Cf.:

- Odjel na celé pondělí.TFHL (=lit. (He) left for (the) whole (of) Monday.)

Přijel na půl.TFHL měsice (=lit. (He) came for half (a) month)
práce na (celý) rok.TFHL (=lit. work for (the) whole year)

- vstupenka na pondĕlí.TOWH (=lit. ticket for Monday)

Na prǐští měsíc.TOWH si nic nenaplánoval. (=lit. For (the) next month (he) - anything has_not_planned.)
práce na prǐští rok.TOWH (=lit. work for (the) next year)
Borders with other functors. The TFHL functor can also border on functors for other than temporal meanings (due to the similarity in form). However, the choice of the functor in a particular context is usually unambiguous. Cf.:

- Přijel do Prahy na celou dovolenou.(=lit. (He) came to Prague for all (his) holiday.)

In this context, the modification na celou dovolenou (=lit. for all (his) holiday) expresses the legth of the stay and the effective root node is assigned the TFHL functor.

- Přijel do Prahy na dovolenou. (=lit. (He) came to Prague on holiday.)

The modification na dovolenou (=lit. on holiday) expresses rather the purpose than the lenght of the stay in Prague. Hence, it is assigned the INTT functor.

### 7.3.3. TFRWH

Definition of the TFRWH functor
The TFRWH functor (temporal: from when) is a functor for a free modification with a temporal meaning corresponding to the question "from when?".

With TFRWH modifications, the temporal specification does not concern the event that is expressed by the governing word but rather the event that follows from the event expressed by the governing word, or a modification of the governing event. A modification with the TFRWH functor refers to the time (a moment or interval) in which the event or modification that follows from the event expressed by the governnig word is originally situated. Example:

Včera.TWHEN přeložil schůzi ze čtvrtka.TFRWH na dnešek.TOWH (=lit. Yesterday (he) postponed (the) meeting from Thursday to today.)

The situating in time is usually carried out by a direct specification of time (z pátku (=from Friday)), rarely also by specifying a temporal relation to another event (Odložila hubnutí z dovolené na pozdější dobu. (=lit. (She) postponed slimming from holiday till later.)).

Valency. Modification with the TFRWH functor is obligatory, just like TOWH modifications, when they follow certain verbs with the prefix pře- (e.g. přeložit (=to_postpone), přesunout (=to_delay)), or after the verbs pocházet (=to_come_from) and převzít (=to_take_over).

Forms. The basic forms of TFRWH modifications are:

- prepositional phrase.

The most common forms:

| od +2 | cukroví od Vánoc (=lit. sweets from Christmas) |
| :--- | :--- |
| $\mathrm{z}+2$ | vstupenka z pátku (=lit. ticket from Friday); Z dětství si nic nepamatuji. (=lit. From childhood <br> (I) - nothing do_not_remember.) |

Example:
Od Vánoc.TFRWH zbylo mnoho cukrovi. (=lit. From Christmas were_left_over plenty (of) sweets.) Fig. 7.12

- adverbial expressions (very rarely).

Example:
Zápisy jsou odvčera.TFRWH (=lit. Registration has_been_running since yesterday.)

NB! This modification is usually not expressed by a dependent clause. However, a similar temporal modification modifying a noun can be expressed by a dependent clause (its effective root node is assigned the RSTR functor); e.g.:

Přeložil výuku z pátku.TFRWH, kdy se to nikomu nehodilo.RSTR, na vhodnější dobu. (=lit. (He) postponed (the) class from Friday when - it (to) anybody did_not suit to more_convenient time.)

Figure 7.12. The TFRWH functor


Od Vánoc zbylo mnoho cukroví. (=lit. From Christmas were_left_over plenty (of) sweets.)

### 7.3.3.1. Borderline cases with the TFRWH functor

Border with the TSIN functor. TFRWH modifications are only marginal. The TFRWH functor is both in its semantics and form close to a temporal modification with the meaning "from when?" (the TS IN functor, see Section 7.3.8, "TSIN"), for details see Section 7.3.8.1, "Borderline cases with the TSIN functor".

Border with the DIR1 functor. The meaning "from when?" can in certain cases (esp. with adverbial expressions) border on the locative meaning "where from?" (the DIR1 functor; see Section 7.4.1, "DIR1"). In such cases the choice of the functor depends on the decision of the annotator. Cf.:

- zápisy ze schi̊ze (=lit.notes from (the) meeting)

The modification ze schize (=from the meeting) can be interpreted as having the meaning "from when?" (TFRWH), or the meaning "where from?" (DIR1).

Border with other functors. The TFRWH functor can also border on other than temporal functors. However, in a particular context the choice of the functor is usually unambiguous. Cf.:

- Strach ze středy Pavla ještě neopustil. (=lit. (The) fear from Wednesday Paul yet has_not_left.)

The modification ze středy (=from Wednesday) can express the day when the fear appeared for the first time (then it is assigned the TFRWH functor), or in a different context (e.g. Paul is doing an important examination on Wednesady and he is afraid of it), the modification ze stredy (=of Wednesday) can express the cause of the fear (CAUS).

### 7.3.4. THL

Definition of the THL functor

The THL functor (temporal: how long) is a functor for such a a free modification that provides specification of time as if answering the question "how long?" (the length of the duration of the
event expressed by the governing word), or "after how long?" (the interval within which the event comes to its end).

THL modifications are usually expressed by direct specification of time (Četl půl hodiny. (=He was reading for half an hour.); Napsal to za dvě hodiny. (=He wrote it in two hours.) ), it is usually not expressed by specifying the relation to another event (po dobu konání přednášky (=for the time of the lecture)).

The two possible questions defining the THL modification are two contextual variants of the same meaning, which are related to the aspect of the governing verb. The variant "how long" mostly coocurs with the imperfective aspect (Četl půl hodiny. (=He was reading for half an hour.)), while the variant "after how long" is primarily connected with perfective aspect (Přečetl to za půl hodiny. (=He read it in half an hour.)).

Forms. The basic forms of THL modifications are:

## - prepositional phrase.

The most common forms:

| $\mathrm{po}+4$ | Dělal to po tři léta. (=He did it for three years.) |
| :--- | :--- |
| po dobu +2 | Po dobu nemoci nepracoval. (=For the time of illness he did not work.) |
| přes+4 | Vydražitel už přes měsic čeká na předání zaplaceného majetku. (=The auction acquirer <br> has been waiting for the handover of the paid property for more than a month.) |
| $\mathrm{za}+4$ | Napsal to za dvě hodiny. (=He wrote it in two hours.) |

- noun in a non-prepositional case.

The most common forms:

## - adverbial expressions.

Examples:
Muzeum je otevřeno celoročně.THL (=lit. (The) museum is open all_year_round.) Fig. 7.13
Dlouho.THL se neviděli. (=lit. (For)(a) long_time each_other (they) have_not_seen.)
Spor se táhne donekonečna.THL (=lit.(The) dispute - goes forever.)
Ještě.THL prší. (=lit. Still (it) is_raining.)
Ustanovení platí i nadále.THL (=lit.(The) enactment is_valid also from_now_on.)
Nepřetržitě.THL vysilali. (=lit. Constantly (they) broadcast.)
Denně pracuje přesčas.THL (=lit. Daily (he) works overtime.)
Usadil se tam trvale.THL (=lit. (He) settled - there forever.)
Ustavičně.THL pršelo. (=lit. Incessantly (it) rained.)
Je věčně.THL nespokojený. (=lit. (He) is always dissatisfied.)

Akcie českých podniků jsou stále.THL vysoce nadhodnoceny.(=lit.(The) shares (of) czech enterprises are still highly overestimated.)

- dependent clause.

The most common forms:

| dokud | Pracoval, dokud mël sily. (=He worked as long as he had strength for it.) |
| :--- | :--- | :--- |
| pokud | Pracoval, pokud mél sily. (=He worked if he had strength for it.) |

NB! A similar meaning can be also expressed by a dependent clause modifying a noun (its effective root node is assigned the RSTR functor); e.g.:

Za tu krátkou dobu.THL, co jsem studoval.RSTR v zahraničí, jsem se naučil více než na všech školách doma . (=lit. During that short time when (I) - studied - abroad (I) - learnt more than at all schools at_home.)

Agreeing form of an adjective. With nouns referring to events (nouns ending with -ní and $t i ́$; see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events"), the THL modifications can also be expressed by agreeing form of adjectives.

Examples:
třičtvrtěhodinové.THL vystoupení (=lit. (a) three-quarter-hour performance)
dvouleté.THL redaktorské působení v Lidové obrodě (=lit. (a) two-year editorial activity in Lidová obroda)
trvalé.THL rozhodování (=lit. permanent decision)

## Figure 7.13. The THL functor



Muzeum je otevřeno celoročně. (=lit. (The) museum is open all_year_round.)

### 7.3.4.1. Borderline cases with the THL functor

Border with the TWHEN functor. In the cases in which the meaning "how long?" or "after how long?" is superimposed upon the basic meaning "when?", the THL functor borders on the TWHEN functor (see Section 7.3.1, "TWHEN"). If the meaning "how long?" or "after how long?" follows directly from the
temporal modification, the modification is assigned the THL functor. However, if the meaning "how long?" or "after how long?" follows from something else (e.g. from the context, verbal aspect etc.), the modification is usually assigned the TWHEN functor. Cf.:

- Pracoval celou neděli.THL (=lit. (He) worked all Sunday.)

The modification celou neděli (=lit. all Sunday) expresses both temporal localization of the event (answer to the question "when?"), and the meaning "how long?". The modification will be assigned functor THL.

Border with the TTILL functor. The THL functor borders on the temporal meaning "till when?" (the TTILL functor; see Section 7.3.9, "TTILL"). The THL functor, however, expresses primarily the length of an event (finished or not), while the TTILL functor expresses primarily the end of an event regardless of its length. Cf.:

- Do posledniho okamžiku.TTILL jsem věřil, že se to povede. (=lit. Till (the) last moment (I) - believed that - it will_turn_out_well.)

The modification do posledniho okamžiku (=till the last moment) can answer the question "till when?" (TTILL), but it can also mean "how long?" (THL). In such cases the TTILL functor is preferred.

Dependent clause introduced by the connective "dokud (=till/until)". Dependent clauses introduced by the connective dokud (=till/until) can express not only the meaning of the THL functor but also the meaning of the TTILL functor (see Section 7.3.9, "TTILL"). The effective root node of the dependent clause is assigned the TTILL functor especially in those cases when it represents a negative perfective verb. If the effective root node of the dependent clause represents a positive verb form, it is usually assigned the THL functor. Cf.:

- Dokud budu.THL živ, budu na vás vzpominat. (=lit. As_long_as (I) - live, (I) will - you remember.)
- Nedělej to, dokud se nevrátím.TTILL (=lit. Don't_do it till (I) - come_back.)


### 7.3.5. THO

Definition of the THO functor

The THO functor (temporal: how often) is functor for a free modification that expresses specification of time answering the question "how often?", or "how many times?". It expresses the frequency of an event or state expressed by the governing word.

THO modifications are usually expressed by direct specification of time (scházeli se denně (=they met daily)), but it can also be expressed by specifying the relation to another event (po každém dešti (=after every rain)).

Forms. The basic forms of THO modifications are:

- prepositional phrase.

The most common forms:

| po+6 | po každém dešti (=after every rain) |
| :--- | :--- |
| před +6 | před každým deštěm (= before every rain) |
| p̌̌i+6 | Scházeli se při každé přiležitosti. (=They met on every occasion.) |

## - noun in a non-prepositional case.

The most common forms:

```
\begin{tabular}{|l|l|l|}
\hline accusative & Od března se hraje pravidelně každý čtvrtek. (=Since March they have played regularly
\end{tabular}
    every Thursday.)
```

Example:
Každé čtyři hodiny.THO si musím vzít prášek. (=lit. Every four hours (I) - have_to take (a) pill.) Fig. 7.14

## - adverbial expressions.

Examples:
Scházeli se denně.THO (=lit. (They) met daily.)
Včera všichni trénovali dvakrát.THO (=lit. Yesterday everybody trained twice.)
O tom často.THO rozhodla centrála. (=lit. About it often decided (the) central office.)
Běžně.THO chodil k svému lékaři. (=lit. Commonly (he) went to his doctor.)
Každoročně.THO jezdime k moři. (=lit. Annualy (we) go to (the) sea.)
Stalo se to už mnohokrát.THO (=lit. Has_happened - (it) already many_times.)
Opakovaně.THO děláš chyby. (=lit. Repeatedly (you) are_making mistakes.)
Pravidelně.THO ji navštěvujeme. (=lit. Regularly (we) her visit.)

## - dependent clause.

The most common forms:

$$
\begin{array}{|l|l|}
\hline \text { kdykoli/v } & \text { Kdykoliv } k \text { vám jdu, nejste doma. (=Whenever I come to you, you are not at home.) } \\
\hline
\end{array}
$$

The THO meaning is often signalled by expressions like každý (=every), všechen (=all), krát (=times).
Agreeing form of an adjective. With nouns denoting events (nouns ending with -ni and $t i$; see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events"), THO modifications can also be expressed by agreeing forms of adjectives.

Examples:
časté.THO poškozování zaměstnanců (=lit. frequent harm (to) employees)
opakovaná.THO jednáni (=lit. repeated negotiations)
každoroční.THO vyúčtování nákladů (=annual account (of) costs)
nëkolikanásobné.THO kontrolní měření (=lit. multiple check measure)
druhé.THO projednávání stíznosti (=lit.second discussion (of) (the) complaint)

Figure 7.14. The THO functor


Každé čtyři hodiny si musím vzít prášek. (=lit. Every four hours (I) REFL have to_take pill.)

### 7.3.5.1. Borderline cases with the тно functor

Border with the TWHEN functor. THO often borders on the meaning "when?" (TWHEN; see Section 7.3.1, "TWHEN"). Frequency of the interval in which the governing event takes place does not have to follow directly from the temporal modification but it can be expressed by other means too (or it can be determined just by the context). The fact that the event is repeated can also follow from the plural form of a noun (within the prepositional phrase). In such cases the temporal modification is usually assigned the TWHEN functor. The THO functor is assigned, if the meaning "how often?" follows directly from the temporal modification. Cf.:

- Pracuje každý pátek.THO (=lit. (He) works every Friday.)

The modification každý pátek (=every Friday) expresses both the temporal localization of the event (answering the question "when?") as well as the meaning "how often". The modification is assigned the THO functor.

- Jezdívá v pátek.TWHEN (=lit. (He) comes Fridays.)

Přijizží pravidelně $\underline{v}$ pátek.TWHEN (=lit. (He) comes regularly on Friday.)
Přijíždí v pátek.TWHEN (=lit. (He) comes on Friday.)
The modification $v$ pátek ( $=$ on Friday) expresses the temporal localization of the event (answer to the question "when?") and the fact that the event is repeated follows from the context (e.g. the verbal aspect). The modification is assigned the TWHEN functor.

- Scházejí se po večerech.TWHEN (=lit. (They) meet - in_the_evenings.)

Navštěvují se o velikonočnich nedělich.TWHEN (=lit. (They) visit each_other on Easter Sundays.)
The modifications po večerech (=in the evenigs) and o velikonočnich nedělich (=on Easter Sundays) express the temporal localization of the event (answering the question "when?"), the context
(plural form of the nouns) signals the repetition of the event. The modification is assigned the TWHEN functor.

In the constructions with a dependent temporal clause, the meaning "how often?" usually only concerns the event that is expressed by the governing verb of the dependent clause; the entire dependent clause, however, usually has the meaning of the TWHEN functor w.r.t. its governing clause; e.g.:

Obvykle.THO když přijdě̌.TWHEN, nejsem doma. (=lit. Usually when (you) come, (I) am_not at_home.)
The meaning "how many times before". A modification with the THO functor expresses ferquency/regularity of the interval in which the event or state expressed by the governnig word takes place; this must be distinguished from the meaning "how many times before" which does not imply any repetition. The meaning " how many times before " is therefore represented by the TWHEN functor. Cf.:

- Zazvonil dvakrát.THO (=lit.(He) rang twice.)
- Zazvonil podruhé.TWHEN (=lit.(He) rang (for) (the) second_time.)


### 7.3.6. TOWH

Definition of the TOWH functor
The TOWH functor (temporal: to when) is a functor for a free modification answering the question "to when?".

With TOWH modifications, the temporal localization does not directly concern the event expressed by the governing word, but rather the TOWH modification situates an event that follows from the event expressed by the governing word, or it situates a modification of the governing event by placing this event or modification into a moment or interval following the moment or interval of the governing event. Example:

Včera.TWHEN svolal schůzi na dnešek.TOWH (=lit. Yesterday (he) called (the) meeting for today.)
This localization is usually expressed by direct specification of time (na pátek (=to Friday), napřiště (=for the next time)), rarely by specifying the temporal relation to another event (Odložila hubnutí až na dovolenou. (=lit.(She) postponed slimming till holiday.)).

Valency. TOWH modifications are obligatory (just like the TFRWH modifications) after some verbs with the prefix pře- (e.g. přeložit (=to_postpone), přesunout (=to_delay)).

Forms. The basic forms of TOWH modifications are:

- prepositional phrase.

The most common forms:

| na+4 | Svolal schůzi na šestou hodinu. (=lit. (He) called (the) meeting for six o'clock.) |
| :--- | :--- |
| pro+4 | Pro nejbliž̌̌í období plánuje ODA setkání se slovenskými poslanci. (=lit. For (the) soonest <br> time is_plannig ODA (a) meeting with Slovak members_of_parliament.) |

Example:
Přeložil výuku na pátek.TOWH (=lit. (He) postponed (the) class to Friday.) Fig. 7.15

- adverbial expressions (very rarely).

Example:
Odložíme to napřǐště.TOWH (=lit. (We) shall_delay it till (the) next_time.)

NB! This modification is usually not expressed by a dependent clause. A similar temporal modification modifying a noun can be, however, expressed by a dependent clause (its effective root node is assigned the RSTR functor); e.g.:

Svolal schůzi na dobu.TOWH, kdy už budou.RSTR všichni doma. (=lit. (He) called (the) meeting for (the) time when already everybody will_be at_home.)

Figure 7.15. The TOWH functor


Přeložil výuku na pátek. (=lit. (He) postponed (the) class till Friday.)

### 7.3.6.1. Borderline cases with the TOWH functor

Border with the TFHL functor. TOWH modifications are rather marginal, however, their identification in a particular construction is usually unambiguous. They partially border on the meaning "for how long?" (TFHL; see Section 7.3.2, "TFHL"). For details see Section 7.3.2.1, "Borderline cases with the TFHL functor".

Border with the DIR3 functor. The meaning "to when?" can in certain cases (esp. with adverbial expressions) border on the directional meaning "where to?" (DIR3; see Section 7.4.3, "DIR3"). In such cases the choice of the functor depends on the annotator. Cf.:

- Přesunul jednání až na konferenci. (=lit. (He) postponed (the) negotiation only till (the) conference.)

The modification na konferenci (=till the conference) can express the temporal meaning (answering the question "to when?"; functor TOWH), but it can also express the location the meeting was tranferred to, therefore it can be assigned the DIR3 functor too.

### 7.3.7. TPAR

Definition of the TPAR functor
The TPAR functor (temporal parallel, contemporaneous) is a functor for a free modification that expresses specification of time answering the question "during what time?", or "simultaneously with what?".

A modification with the TPAR functor expresses the temporal extent of the event or state of the governing word either by direct specification of the time/duration (během pěti hodin (=during five hours), po celou hodinu (=during the whole hour)), or by specifying the temporal relation to another event; in such case it expresses simultaneity of two events (během snidaně (=during the breakfast), souběžně $s$ přednáskou (=simultaneously with the lecture)).

Forms. The basic forms of TPAR modifications are:

## - prepositional phrase.

The most common forms:

| během+2 | Během naší dovolené ani jednou nepršelo. (=lit. During our holiday not once (it) <br> rained.) |
| :--- | :--- |
| o+6 | Turisté zamířili o dovolené do Švýcarska. (=lit. Turists went on holiday to <br> Switzerland.) |
| po+4 | Po celou dobu mě nepřestala bolet hlava. (=lit. For all (the) time - has_not_stopped <br> aching (my) head.) |
| průběhem+2 | Průběhem času nastaly změny. (=lit. (With) (the) course (of) time came changes.) |$|$| Přes celé léto se tam nedostal. (=lit. During (the) whole summer (he) - there |
| :--- |
| did_not_get.) |

- noun in a non-prepositional case.

The most common forms:
instrumental Cestou do Norimberku jsme třikrát stavěli.(=On the way to Norimberk we stopped three times.)

- adverbial expressions.

Examples:
Hraje a přitom.TPAR zpivá. (=lit. (He) is_playing and at_the_same_time singing.)
Mezitím.TPAR si připravoval oběd. (=lit. Meanwhile (he) (for) himself was_making lunch.)
Zamlada.TPAR byl neustále veselý. (=lit. When_young (he) was always cheerful.)
Zároveň.TPAR $v$ duchu počital. (=lit. At_the_same_time to_himself (he) counted.)
Zatím.TPAR můžete odpočívat. (=lit. Meanwhile (you) can rest.)

- dependent clause.

The most common forms:

| zatímco | Zatímco Sára ještě spi, zapřáhne osla. (=lit. While Sarah still is_asleep, (he) yokes <br> (a) donkey.) |
| :--- | :--- |
| mezitím - co | Mezitím, co se novináři dobývali na hráčée, trenéři odpovídali na tiskové konferenci. <br> (=lit. While - journalists were_trying_to_reach (the) players, coaches were_giving <br> (a) press conference.) |

Example:
Zatímco spala.TPAR , přemýšlel jsem.(=lit. While (she) was_sleeping (I) was_thinking.) Fig. 7.16

Agreeing form of an adjective. With nouns referring to events (nouns ending with -ní and $t i ́$; see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events"), TPAR modifications can also be expressed by an agreeing forms of adjectives (but this is rare).

Example:
současné.TPAR zrušení clearingového zúčtovánía dovozní přirážky (=lit. simultaneous cancellation (of) clearing account and import surcharge)

## Figure 7.16. The TPAR functor



Zatímco spala, přemýšlel jsem. (=lit. While (she) was_sleeping (I) was_thinking -.)

### 7.3.7.1. Borderline cases with the TPAR functor

Borders with other temporal functors. Many prepositions, esp. secondary prepositions, unambiguously express the TPAR meaning (současně_s (=simultaneously_with), během (=during)); however, with primary prepositions, the situation might be less straightforward as they are often ambiguous. Cf.:

- Napsal to za dvě hodiny.THL (=lit. (He) wrote it in two hours.)
- Za dvě hodiny.TPAR nic neudělal. (=lit. For two hours (he) anything has_not_done.)

A similar situation may arise with adverbs. Cf.:

- Zamlada.TPAR byl neustále veselý. (=lit. When_young (he) was always cheerful.)
- Napsal to ještě zamlada.TWHEN. (=lit. (He) wrote it still when_young.)

Border with the ACMP functor. The TPAR functor is close both in its semantics and its form to the ACMP functor (see Section 7.6.1, "ACMP"), esp. in its meaning "simultaneously with what?". Whenever the prepositional phrase cannot be clearly interpreted as a temporal modification (two parallel events), the prepositional phrase is assigned the ACMP functor (accompaniment). Cf.:

- Souběžně s přednáškou.TPAR probihaly i semináře. (=lit. Simultaneously with (the) lecture were_running seminars.)
- Souběžně s hřebiky.ACMP vyráběli i matky. (=lit. Simultaneously with nails (they) produced also nuts.)

Border with the CONTRD functor. The conjunction zatímco (=while) can introduce not only a dependent clause with the meaning of the TPAR functor, but also a dependent clause with the meaning of the CONTRD functor (see Section 7.9.2, "CONTRD"). For details see Section 7.9.2.1, "Borderline cases with the functor CONTRD".

### 7.3.8. TSIN

Definition of the TSIN functor

The TS IN functor (temporal: since when) is a functor for a free modification that expresses specification of time answering the question "since when?".

A modification with the TS IN functor expresses the beginning of the event expressed by the governing word, either by direct specification of the moment (od pěti hodin (=lit. since five o 'clock), odedneška (=since today)), or by specifying the temporal relation to another event (od přijezdu (=lit. since (the) arrival), od snidaně (=lit. since breakfast)).

Forms. The basic forms of TSIN modifications are:

- prepositional phrase.

The most common forms:

| od +2 | Expozice je od včerejška otevřena v pražském Centru nezávislé žurnalistiky. (=The <br> exposition has been open since yesterday in Prague Center of Independent Journalism.) |
| :--- | :--- |
| počínaje +7 | Počínaje snídaní nic nejedl. (=He has not eaten since breakfast.) |

Example:
Od soboty.TS IN nepršelo. (=lit. Since Saturday (it) has_not rained.) Fig. 7.17

- adverbial expressions.

Examples:
Znají se odedávna.TS IN (=lit. (They) know each_other for_ages.)
Odjakživa.TS IN jsem neměl rád tohle město. (=lit. Since_ever (I) - do_not_like this town.)
Odkdy.TSIN se znáte?(=lit. Since_when each_other have_you_known?)
Odvčera.TS IN už nic nejedl.(=lit. Since_yesterday (he) - anything has_not_eaten.)

- dependent clause.

The most common forms:

| co | Co jsem skončil školu, hledám práci. (=Since I finished school I have been looking for a job.) |
| :---: | :--- |

Example:
Co odešli.TS IN , je tu klid. (=lit. Since (they) left (it) has_been here calm.) Fig. 7.18
NB! A modification with the TSIN functor is only rarely expressed by a dependent clause. A similar temporal modification modifying a noun can, however, be expressed by a dependent clause (its effective root node is assigned the RSTR functor); e.g.:

Od toho okamžiku.TS IN , co jsem ho spatřil.RSTR, jsem věděl, že je to on. (=lit. From the moment when (I) - him saw (I) - knew that was it him.)

Od doby.TSIN , kdy jsem ho navštívil.RSTR , uplynulo několik dní. (=lit. Since (the) time when (I) - him visited have passed several days.)

Figure 7.17. The TSIN functor


Od soboty nepršelo. (=lit. Since Saturday (it) has_not_rained.)

Figure 7.18. The TSIN functor


Co odešli, je tu klid. (=lit. Since (they) left (it) has_been here calm.)

### 7.3.8.1. Borderline cases with the TSIN functor

Border with the TFRWH functor. The TSIN functor is close to the temporal modifications the meaning of which is "from when?" (TFRWH; see Section 7.3.3, "TFRWH"). However, the distinction between these two functors in a particular context is usually unambiguous. A modification with the TSIN functor always expresses the beginning (of the duration) of the governing event., i.e. the beginning of an interval; the TFRWH functor, on the other hand, has nothing to do with duration or intervals, it only localizes another modification in a moment in the past. Cf.:

- Od minulého roku.TS IN už nepracuji. (=lit. Since last year (I) have_not_worked.)

Pracuje odvčera.TS IN (= lit.(He) has_been_working since_yesterday.)

- vstupenka z pondělí.TFRWH (=lit. (a) ticket from Monday)

Zápisy jsou odvčera.TFRWH (=lit. Registration has_been_running since_ yesterday.)
$\underline{Z}$ minulého roku.TFRWH si nic nepamatuji (=lit. From (the) last year (I) - anything cannot_remember.)
nevykonaná práce od minulého pondélí.TFRWH (=lit. that_has_not_been_done work since last Monday)

Borders with other functors. Due to the identity in form, the TS IN functor can also border on functors for other than temporal modifications. However, in a particular context the choice of the functor is usually unambiguous. Cf.:

- Od snídaně mě bolí zuby. (=Since breakfast I have had a toothache.)

The modification od snidané ( =since breakfast) can express the moment when the toothache started (then it is assigned the TS IN functor), in a different context, however, (e.g. I had something sweet
for breakfast and it makes my teeth ache) the modification od snidaně (=since breakfast) can be assigned the CAUS functor, too.

### 7.3.9. TTILL

Definition of the TTILL functor
The TTILL functor (temporal: till) is a functor for a (free) temporal modification answering the question "till when?".

A modification with the TTILL functor expresses the end of the event (expressed by the governing word) either by direct specification of the moment (do pěti hodin (=lit. till five o'clock), dodnes ( $=$ till today)), or by specifying the temporal relation to another event (do odjezdu (=till the departure), do snídaně (=till breakfast)).

Forms. The basic forms of TTILL modifications are:

## - prepositional phrase.

The most common forms:

| $\mathrm{do}+2$ | Do večera budu v Praze. (=Till the evening I will be in Prague.) |
| :--- | :--- |
| $\mathrm{k}+3$ | K tomuto termínu bylo podáno 2173 žádostí. (=2173 applications have been submitted by <br> this date.) |
| $\mathrm{po}+4$ | Pracoval až po tu chvíli. (=He was working till that moment.) |

## - adverbial expressions.

Examples:
Až doted'.'TTILL byl spokojen. (=lit. Till now (he) has_been satisfied.)
Dodnes.TTILL nevim, kde je. (=lit. Till_today (I) do_not_know where (he) is.)
Dokdy.TTILL tu můžete zůstat?(=lit. Till_when here can_(you) stay?)
Doposud.TTILL jsme nepřišli na řešení. (=lit. So far (we) - have_not_arrived at (a) solution.)

## - dependent clause.

The most common forms:

| až | Za rohem na ně počká, až to skončí. (=Round the corner he will wait for them till it <br> ends.) |
| :--- | :--- |
| dokud | Nedělej to, dokud se nevrátím. (=Don't do it till I get back.) |
| než / nežli | Potomci posbírali nějaké vědomosti, než převzali rodinný majetek a začali na něm <br> sami hospodařit. (=The descendants gathered some knowledge before they took over <br> the property of the family and started to manage it on their own.) |

A temporal modification with the TILL functor can also be expressed by a dependent clause introduced by the subordinating connectives dokud (=till/until) and než (=before). The governing verb of the dependent clause is usually perfective; the conjunction než (=before) requires a positive verb form while the conjunction dokud (=till/until) requires a negative verb form.

Example:
Udělej to, než se vrátím.TTILL (=lit. Do it before (I) - get_back.) Fig. 7.19


#### Abstract

NB! In the constructions with the expressions do te doby, co (=lit. till the time when); do toho okamžiku, kdy (=lit. till the moment when) etc. the dependent clause is not interpreted as a temporal clause but its effective root node is rather assigned the RSTR functor; e.g.:

Budeme to auto využivat do té doby.TTILL , co bude jezdit.RSTR (=lit. (We) will the car use till the time when (it) - goes.)


Agreeing form of an adjective. With nouns denoting events (nouns ending with -ni and $t i$; see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events"), THL modifications can also be expressed by agreeing forms of adjectives (however, this is rather rare).

Example:

## dosavadní.TTILL fungování (=lit. (the) existing operation)

Figure 7.19. The TTILL functor


Udělej to, než se vrátím. (=lit. Do it before (I) get_back.)

### 7.3.9.1. Borderline cases with the TTILL functor

Border with the THL functor. The TTILL functor is close esp. to temporal modifications with the meaning "how long?" (THL; see Section 7.3.4, "THL"). See Section 7.3.4.1, "Borderline cases with the THL functor".

Dependent clause with conjunction "dokud (=till)". A dependent temporal clause introduced by the connective dokud ( $=$ till) can express both the meaning TTILL and THL. See also Section 7.3.4.1, "Borderline cases with the THL functor".

Border with the TWHEN functor in the constructions with conjunction "než (=before)". A dependent temporal clause with the conjuction než (=before) borders on temporal clauses that have the meaning of the TWHEN functor (see Section 7.3.1, "TWHEN"). Cf.:

- Než se naobědval.TWHEN , umyl si ruce. (=lit. Before (he) - had_lunch, (he) washed his hands.)
- Udělej to, než se vrátím.TTILL (=lit. Do it before (I) get_back.)


### 7.4. Locative and directional functors

Locative and directional functors represent a set of semantically differentiated functors of free modifications expressing location or direction related to the content of the governing word. The individual functors differ according to the kind of question they answer.

## List of the locative and directional functors

- DIR1
- DIR2
- DIR3
- LOC

Locative and directional functors localize most often events or states, therefore they primarily modify verbs, nouns and adjectives denoting events. However, they can also modify nouns that do not denote events (e.g. stůl v pokoji.LOC (=lit. (a) table in (the) room); kaminek z moře.DIR1 (=lit. (a) pebble from (the) sea).

The sections devoted to the individual functors are organized in alphabetical order (according to the abbreviations for the functors).

### 7.4.1. DIR1

Definition of the DIR1 functor

The DIR1 functor (directional: from) is a functor of a free modification that expresses specification of place (direction) answering the question "where from?", i.e. it refers to the starting point (of the event denoted by the governing word).

A modification with the DIR1 functor can also have the meaning of a selection from a group of objects; e.g.:
jeden $z$ chlapcu․DIR1 (=lit. one of (the) boys)
nejlepší z lidí.DIR1 (=lit. (the) best of men)
Subfunctors. The DIR1 functor is further specified by subfunctors. See Section 7.13.1.4, "Subfunctors with the DIR1 functor".

Valency. DIR1 modifications are obligatory for many verbs, esp. for verbs of motion with the prefix od-, $v y$ - and $s$ - (e.g. odplout (=to_sail_away), odpochodovat (=to_march_away), odstranit (=to_remove), vylovit (=to_fish_out), vyváznout (=to_express), seskočit (=to_jump_down), sundat (=to_take_down)), for verbs of motion with the prefix pree-, DIR1 modifications are obligatory together with DIR3 modifications (přemistit (=to_replace), přesadit (=to_reposition), přesidlit (=to_resettle)).

Forms. The basic forms of DIR1 modifications are:

- prepositional phrase.

The most common forms:

| $\mathrm{od}+2$ | Ustoupil od stěny. (=He stepped back from the wall.) |
| :--- | :--- |
| $\mathrm{s}+2$ | Premiér smetl dohady kolem Elbitu se stolu. (=The Prime Minister brushed the <br> speculations about Elbit off.) |


| směrem od +2 | Směrem od Prahy jede vic aut. (=More cars are coming in the direction from <br> Prague.) |
| :--- | :--- |
| $\mathrm{z}+2$ | Ze zdi padá omitka. (=The plaster falls off the wall.); Zvolili tři z pěti mistopředsed <br> (=They elected three of five vicechairmen.) |
| zpod +2 | zpod stolu (=from under the table) |
| zpoza +2 | Vyběhl zpoza rohu. (=He came running from round the corner.) |

## - adverbial expressions.

Examples:
Odkud.DIR1 jste přijeli?(=lit. Where did (you) come (from)?) Fig. 7.20
Každý pocházel odjinud.DIR1 (=lit. Everybody came from elsewhere.)
Odněkud.DIR1 ho znám. (=lit. From_somewhere (I) him know.)
Dovážime odtud.DIR1 spotřební zboži, potraviny a textil. (=lit. (We) import from_here consumer goods, grocery and textile.)

Pohliželi na krajinu až shora.DIR1 (=lit. (They) beheld (the) landscape - from_above.)
Musím se na to podivat_zblizka.DIR1 (=lit. (I) must - at it have_(a)_look from_close-up.)
Zevnitř.DIR1 se ozval hluk. (=lit. From_inside - came (a) noise.)
Zleva.DIR1 přišel nečekaný útok. (=lit. From_left (there) came (an) unexpected attack.)

## - dependent clause.

The most common forms:
odkud Přišel, odkud to nikdo nečekal. (=He came from where nobody expected it.)
NB! Dependent clauses with locative or directional meanings are usually introduced by relative adverbs, not conjunctions.

Přišel, odkud.DIR1 to nikdo nečekal.DIR1 (=lit. (He) came from it nobody expected.)
Díval se <odtamtud>, odkud.DIR1 se vždycky dívá.DIR1 (=lit. (He) watched from_where (he) always watches.)

In some cases in which the dependent clause is introduced by a pair of pronominal adverbial connectives with a different meaning, its effective root node is assigned the RSTR functor. For example:

Dívala se tam.DIR3, odkud.DIR1 ses ozval.RSTR (=lit. (She) was_looking (in) (the) direction where (you) - sounded from.)

For details see Section 6.5.3.4, "Correlative pairs with temporal pronominal adverbs as supporting expressions".

Figure 7.20. The DIR1 functor


Odkud jste přijeli? (=lit. Where_from did_(you) come?)

### 7.4.1.1. Borderline cases with the DIR1 functor

Borders with other locative and directinal functors. DIR1 modifications borders on other locative modifications (due to their formal similarities). For more see Section 7.4.4, "LOC".

Borders with other functors. DIR1 modifications can border also on other than locative modifications. However, in a particular context the choice of the functor is usually unambiguous. Cf.:

- Strach z Prahy Pavla ještě neopustil. (=lit. (The) fear of Prague Paul yet has_not_left.)

The modification z Prahy (=of Prague) can express the location where Paul's fear appeared for the first time (then it is assigned the DIR1 functor), or, in a different context (e.g. Paul is going to study in Prague and he is afraid of it), the modification z Prahy (=of Prague) can carry the CAUS meaning.

### 7.4.2. DIR2

Definition of the DIR2 functor
The DIR2 functor (directional: which way) is a functor for a free modification that expresses specification of place (direction) answering the question "which way?".

Subfunctors. The DIR2 functor is further specified by subfunctors. See Section 7.13.1.5, "Subfunctors with the DIR2 functor".

Valency. DIR2 modifications are obligatory for many verbs, esp. for verbs of motion with the prefix pro- (e.g. proběhnout (=to_run_by), projít (=to_pass), proniknout (=to_penetrate), proskočit (=to_jump_through), ubirat se (=to_trace)).

Forms. The basic forms of DIR2 modifications are:

- prepositional phrase.

The most common forms:

| blízko+2 | Prošli blizko toho domu. (=They passed close to that house.) |
| :--- | :--- |
| dle +2 | Dle silnice vede chodnik. (=Along the road there is a pavement.) |


| kolem+2 | Prošli kolem nás. (=They passed by us.) |
| :--- | :--- |
| mezi+7 | Proběhl mezi nimi. (=He ran between them.) |
| mimo+4 | Prošel mimo tebe. (=He passed around you.) |
| nad+7 | Trat'se vine nad řekou. (=The track winds above the river.) |
| naproti+3 | Cesta se vine naproti svahu. (=The path winds opposite the slope.) |
| např̌̌č+3 | Hlavní dopravní tepna jde napřič městem. (=The main arterial road goes across <br> the city.) |
| nedaleko+2 | Prošli nedaleko Chrudimi. (=They passed not far from Chrudim.) |
| okolo+2 | Chodil okolo domu. (=He kept passing by the house.) |
| po+6 | Jezdí po Čechách. (=He goes round Bohemia.) |
| poblíž+2 | Prošel pobliž nebezpeči.. (=He passed close to danger.) |
| pod+7 | Tunel vede pod řekou. (=The tunnel leads under the river.) |
| podél+2 | Podél řeky vede silnice. (=Along the river leads a road.) |
| podle+2 | Podle potoka vede cesta. (=Along the brook leads a path.) |
| proti+3 | Prošel proti radnici. (=He passed opposite the townhall.) |
| přes+4 | Přes louku vede cesta. (=Across the meadow leads a path.) |
| skrz+4 | Provrtali diru skrz zed'. (=They drilled a whole through the wall.) |
| směrem do+2 | Vydali se směrem do Prahy. (=They set off towards Prague.) |
| směrem k+3 | Vydali se směrem ku Praze. (=They set off towards Prague.) |
| směrem na+4 | Silnice je směrem na Prahu zacpaná. (=The road to Prague is jammed.) |
| směrem proti+3 | Prošel směrem proti radnici. (=He passed in the direction towards the townhall.) |
| souběžně s+7 | Souběžně s železnicí vede silnice. (=Alongside the railway leads a road.) |
| vedle+2 | Vedle našeho domu vede cesta. (=Next to our hous there is a path.) |
| za+7 | Procházel se za plotem. (=He was walking behind the fence.) |

Example:
Šli podél lesa.DIR2 (=lit. (They) walked along (the) forest.) Fig. 7.21

- noun in a non-prepositional case.

The most common forms:

| instrumental | Maršál Rommel ustupoval údolím řeky Vardaru. (=Marshal Rommel retreated |
| :---: | :--- | through the valley of the river Vardar.)

- adverbial expressions.

Examples:
$\underline{K u d y} . \mathrm{DIR} 2$ piujdeme? (=lit. Which_way shall_(we)_go?)
Musime jit jinudy.DIR2 (=lit. (We) must take another_way.)
Turista jen málokdy projde okolo.DIR2 (=lit. (A) tourist only hardly_ever passes by.)
Nastupujte předem.DIR2 (=lit.(For) boarding use (the) front_door.)
Odešli středem.DIR2 (=lit. (They) left through_(the)_middle.)

Tudy.DIR2 cesta nevede. (=lit. Here (there) is (no) way.)

- dependent clause.

The most common forms:
kudy Půjdeme, kudy budeme chtit. (=We shall go whichever way we wish to.)
NB! Dependent clauses with locative and directional meanings are usually introduced by relative adverbs, not by conjunctions.

Půjdeme, kudy.DIR2 budeme chtit.t.DIR2 (=lit. (We) shall_go whichever_way (we) wish_to.)
Dostal se tam <tudy>, kudy.DIR2 pronikalo.DIR2 světlo. (=lit. (He) got - there (the) way which came_through light.)

In some cases in which the dependent clause is introduced by a pair of pronominal adverbial connectives with different meanings, the effective root node of the clause is assigned the RSTR functor. For example:

Díval se tam.DIR3, kudy.DIR2 pronikalo.RSTR světlo. (=lit. (He) watched - where came_through (the) light.)

For details see Section 6.5.3.4, "Correlative pairs with temporal pronominal adverbs as supporting expressions".

Figure 7.21. The DIR2 functor


Šli podél lesa. (=lit. (They) walked along forest.)

### 7.4.2.1. Borderline cases with the DIR2 functor

Borders with other locative or directional functors. DIR1 modifications border on other locative or directional modifications. For more see Section 7.4.4, "LOC".

### 7.4.3. DIR3

Definition of the DIR3 functor
The DIR3 fnctor (directional: to) is a functor for a free modification that specifies the direction (it answers the question "where to?"), i.e. it expresses the target point of the event.

Subfunctors. The DIR3 functor is further specified by subfunctors. See Section 7.13.1.6, "The subfunctors with the DIR3 functor".

Valency. DIR3 modifications are obligatory for many verbs, esp. for verbs of motion with the prefix do-, na-, při- and v-(e.g. doběhnout (=to_run_in), doputovat (=to_reach sth. by travelling), nahnat (=to_drive), namontovat (=to_install), přijít (=to_come), přičlenit (=to_annex), vhodit (=to_insert/throw_in), vklouznout (=to_slip_in)). With verbs of movement with the prefix pře-, DIR3 modifications are obligatory together with DIR1 modifications (přemístit (=to_relocate), přesadit (=to_transplant), přesídlit (=to_resettle)). With some verbs, obligatory DIR3 modifications alternate with obligatory LOC modifications (e.g. odevzdat knihy v knihovné.LOC (=lit. to_hand_in (the) books in (a) library) / do knihovny.DIR3 (=to (a) library)).

Forms. The basic forms of DIR3 modifications are:

- prepositional phrase.

The most common forms:

| blízko+2 | Položil to blizko vázy. (=He put it near the vase.) |
| :--- | :--- |
| do+2 | Odešel do města. (=He left for a city.) |
| do čela+2 | Do čela kandidátky se nedostal. (=He did not get to the lead of the ballot.) |
| doprostřed+2 | Polož to doprostřed stolu. (=Put it in the middle of the table.) |
| $\mathrm{k}+3$ | Postav se k němu. (=Stand to him.) |
| mezi+4 | Dal to mezi stůl a gauč. (=He out it between the table and the couch.) |
| mimo+4 | Oba důstojníci byli postaveni mimo službu. (=Both officers were put off duty.) |
| na+4 | Vydali se na Spořilov. (=They set off to Spořilov.) |
| nad+4 | Pověs ten obraz nad televizi. (=Hang the painting over the television.) |
| na roveň+2 | Postavil ženu na roveň muži. (=He made a woman equal to a man.) |
| po+4 | Voda mi sahá po kolena. (=Water is reaching my knees.) |
| po+6 | Házel po něm kamenim. (=He was throwing stones at him.) |
| pod+4 | Schoval se tedy pod deštnik. (=Thus he hid himself under an umbrella.) |
| poblíž+2 | Položil knihu pobliž postele. (=He put a book close to the bed.) |
| proti+3 | Postavila se proti zrcadlu. (=She stood opposite the mirror.) |
| před+4 | Vyšli před dům. (=They went out of the house.) |
| přes+4 | Rám přesahuje přes konstrukci. (=The frame reaches over the construction.) |
| směrem k+3 | Usedl směrem k oknu. (=He sat down toward the window.) |
| směrem proti+3 | Usedl směrem proti oknu. (=He sat down opposite the window.) |
| tváří v tvář+3 | Hleděl tvář' v tvář problému. (=He was facing up to a problem.) |
| vedle+2 | Zaparkoval auto vedle garáže. (=He parked the car next to the garage.) |
| za+4 | Uklidil koště za skř̌̌n. (=He put the broom away behind the wardrobe.) |
| za+7 | Př̌šli jsme si pro rozhovor za spisovatelem. (=We came for an interview to a |
| writer.) |  |

Example:

Odjela za manželem.DIR3 (=lit.(She) left for (her) husband.) Fig. 7.22

## - noun in a non-prepositional case.

The most common forms:
$\qquad$ chilling discovery.)

## - adverbial expressions.

Examples:
Kam.DIR3 jdete? (=lit. Where are_(you)_going?)
Pryč.DIR3 s nimi! (=lit. Away with them!)
Pojd'te dál.DIR3 (=lit. Come in.)
Odjedeme daleko.DIR3 (=lit. (We) shall_go far_away.)
Cesta se točí doleva.DIR3 (=lit. (The) path winds (to) (the) left.)
Sestoupili dolů.DIR3 do údolí. (=lit. (They) descended down to(the) valley.)
Byly sem.DIR3 svezeny z celých severozápadnich Čech. (=lit. (They) were here driven from (the) whole (of) Western Bohemia.)

S vámi jdeme kamkoliv.DIR3 (=lit. With you (we) will_go wherever.)
Nikam.DIR3 se nepůjde. (=lit. Nowhere - (one) will_go.)
Pověsil lampu přiliš nizko.DIR3 (=lit. (He) hung (the) lamp too low.)

- dependent clause.

The most common forms:
kam Dej to, kam nedostane. (=Put it where he cannot reach.)
NB! Dependent locative and directional clauses are usually introduced by relative adverbs, not by conjunctions.

Dej to, kam.DIR3 se nedostane.DIR3 (=lit. Put it where (he) cannot reach.)
Uklid' to <tam> , kam.DIR3 to patríl.DIR3 (=lit. Put it there where it belongs.)
In some cases, in which the dependent clause is introduced by a pair of pronominal adverbial expressions with different meanings, the effective root node of the dependent clause is assigned the RSTR functor. Example:

Vrat' to tam.DIR3, odkud.DIR1 jsi to vzal.RSTR (=lit.Put back it there where (you) - it took.)
For details see Section 6.5.3.4, "Correlative pairs with temporal pronominal adverbs as supporting expressions".

Agreeing form of an adjective. With nouns denoting events (nouns ending with -ni and $t i$; see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events"), DIR3 modifications can also be expressed by agreeing forms of adjectives.

Example:
zpětné.DIR3 ziskání celého podilu (=lit. retrogressive acquisition (of) (the) whole share)
Figure 7.22. The DIR3 functor


Odjela za manželem. (=lit. (She) left for husband.)

### 7.4.3.1. Borderline cases with the DIR3 functor

Borders with other locative or directional functors. DIR3 modifications border on other locative or directional functors. For details see Section 7.4.4, "LOC".

Border with the INTT functor. The DIR3 functor can also border on the INTT functor (intention, see Section 7.5.5, "INTT"). For details see Section 7.5.5.1, "Borderline cases with the INTT functor $"$.

### 7.4.4. LOC

Definition of the LOC functor
The LOC functor (locative) is a functor for a free modification that specifies the location answering the question "where?", i.e. it indicates the place at which the event or state is situated.

Subfunctors. The LOC functor is further specified by subfunctors. See Section 7.13.1.8, "Subfunctors with the LOC functor".

Valency. LOC modifications are obligatory for many verbs with the meaning of something being somewhere (e.g. nacházet se (=to_be_found), ocitnout se (=to_find_oneself), objevit se (=to_appear), rozkládat se (=to_stretch), bydlet (=to_live/to_dwell)), hostovat (=to_guest)), but also for several verbs with a different meaning (bolet (=to_ache), chybět (=to_miss)). In some cases the obligatory modification with the LOC functor alternates with an obligatory modification with the DIR3 functor (e.g. odevzdat knihy v knihovně.LOC (=lit. to_hand_in (the) book in (a) library) / do knihovny.DIR3 (=lit. to (a) library)).

Forms. The basic forms of LOC modifications are:

## - prepositional phrase.

The most common forms:

| blízko+2 | Jsme vždy blizko vás. (=We are always close to you.) |
| :---: | :---: |
| k+3 | Ke konci stránky už se mi zavírali oči. (=Towards the end of the page my eyes were closing.) |
| kolem+2 | Nebezpečí můze být všude kolem nás. (=Danger can be all around us.) |
| mezi+7 | Měli mezi sebou velký odstup. (=They kept long distance beween each other.) |
| mimo +2 | Působi mimo Prahu. (=He works outside Prague.) |
| na+6 | Sejdeme se na Spořilově. (=We shall meet at Spořilov.) |
| nad+7 | Nad lesem se objevil černý mrak. (=There appeared a black cloud above the forest.) |
| naproti +3 | Obchod stojí naproti nádraži. (=The shop is located opposite the station.) |
| na úrovni+2 | Poslanec neni na úrovni ministra. (=A memeber of parliament is not on the level of a minister.) |
| nedaleko+2 | Jsou nedaleko tábora. (=They are not far away from the camp.) |
| okolo+2 | Všude okolo města jsou lesy. (=There are woods all around the town.) |
| po+4 | Po mnoho kilometri̊ se nic nepřihodilo. (=Nothing happened through many kilometres.) |
| po+6 | Po straně vycházeli stále novi herci. (=On the side there were still coming new actors.) |
| poblíž+2 | Pobliž vesnice je rybnik. (=Near the village there is a pond.) |
| pod+7 | Pod mostem spali bezdomovci. (=There slept the homeless under the bridge.) |
| podél+2 | Podél potoka se nachází mnoho vzácných rostlin. (=There are many rare plants along the brook.) |
| podle +2 | Podle potoka leži vesnice. (=There is a village allonside the brook.) |
| proti+3 | Zrcadlo visi proti oknu. (=The mirror hangs opposite the window.) |
| před+7 | Tykal mu i před lidmi. (=He was on first name terms with him even in front of other people.) |
| přes+4 | Bydlí přes dvůr. (=He lives across the yard.) |
| při+6 | Při dveřich stála stará lavice. (=There was an old bench standing by the door.) |
| směrem k+3 | Leži směrem k Národnímu divadlu. (=It is located towards the National Theatre.) |
| směrem proti +3 | Zrcadlo visi směrem proti oknu. (=The mirror hangs facing the window.) |
| tváří v tvář+3 | Stojí tváří v tvár problému. (=He is facing a problem.) |
| uprostřed+2 | Uprostřed náměstí se vytvořil hlouček lidí. (=There gathered a small group of people in the middle of the square.) |
| uvnitř+2 | Uvnitř kostela bylo chladno. (=It was cold inside the church.) |
| v+6 | $V$ restauraci jsme si ani nestihli vypit kávu. (=In the restaurant we did not even make it to drink our coffee.) |
| v čele+2 | $V$ čele průvodu šly děti. (=There were children marching on the lead of the promenade.) |
| vedle +2 | Bydli vedle zlatnictvi. (=He lives in a goldsmith's shop.) |
| vně+2 | Vně zahrad nerostla ani tráva. (=Outside gardens there was hardly grass growing.) |
| v oblasti +2 | V oblasti vzdělávání máme velké mezery. (=We have serious loophopes in the educational field.) |


| v oboru+2 | V oboru zemědělské výroby se vedou četné diskuze. (=There are numerous debates <br> in the field of agricultural production.) |
| :--- | :--- |
| v rámci+2 | V rámci města je možné jezdit po dálnici bez poplatku. (=Within a town it is <br> possible to go on the motorway without a fee.) |
| za+7 | Za vyřešenými problémy se objevily dalši.. (=There emerged new problems fom <br> behind the solved ones.) |

## - adverbial expressions.

Examples:
Kde.LOC na mě počkáte? (=lit. Where for me will_(you)_wait?) Fig. 7.23
Jeho syn bydlí blizko.LOC (=lit. His son lives near.)
Dole.LOC pod námi byla slyšet řeka. (=lit. Down below us (we) could_hear (a) river.)
Zůstaň doma.LOC (=lit. Stay at_home.)
Zkusime to jinde.LOC (=lit. (We) will_try it elsewhere.)
Sklep je př̌liš̌ hluboko.LOC (=lit. (The) cellar is too deep.)
Město leží jižněji. LOC (=lit. (The) town is_situated more_southward.)
Kolem.LOC bylo rozházeno plno odpadků. (=lit. Around (there) was plenty (of) litter scattered.)
Málokde.LOC se tak dobře pobavím jako $u$ vás. (=lit. There_are_very_few_places_where myself as well (I) amuse as by you.)

Misty.LOC ležel v ulicich ještě sníh. (=lit. Somewhere was in (the) streets still snow.)
Nalevo.LOC stál pěkný dům. (=lit. On_(the) left was_standing (a) nice house.)
Už je několik dní pryč.LOC (=lit. (He) already has_been (for) several days away.)
Venku.LOC se zatím rozpršelo. (=lit. Outside - (in) (the) meantime (it) started_(to)_rain.)
Počkejte zde.LOC (=lit. Wait here.)

- dependent clause.

The most common forms:
kde Dovolenou strávím, kde budu chtit. (=I will spend the holiday wherever I want.)
NB! Dependent clauses with the locative meaning are usually introduced by relative adverbs, not by a conjunction.

Dovolenou strávím, $k$ de.LOC budu chtit.LOC (=lit. (The) holiday (I) will_spend where (I) will_want.)
Všechno je <tam>, kde.LOC to má bút.LOC (=lit. Everything is - where it should be.)
In some cases, in which the dependent clause is introduced by a pair of pronominal adverbial expressions with different meanings, its effective root node is assigned the RSTR functor. Example:

Přišli jsme znovu tam.DIR3, kde.LOC už jsme jednou byli.RSTR (=lit. (We) came - again - where (we) already have once_before been.)

For details see Section 6.5.3.4, "Correlative pairs with temporal pronominal adverbs as supporting expressions".

Agreeing form of an adjective. With nouns denoting events (nouns ending with with -ní and $t t^{\prime}$; see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events"), LOC modifications are expressed also by agreeing foms of adjectives.

Examples:
evropské.LOC jednání (=lit. European negotiation)
Amerického.LOC vydání se nedávno dočkal Škvoreckého Tankový prapor. (=lit. (To) American edition - lately has_waited Škvorecky's Tank Battalion.)

Tamní.LOC jednání trvají. (=lit. Local negotiations last.)
zahraniční.LOC utkání (=lit. international match)

## Figure 7.23. The LOC functor



Kde na mě počkáte? (=lit. Where for me will_you_wait?)

### 7.4.4.1. Borderline cases with the LOC functor

Borders between locative and directional functors. The LOC functor borders on other locative or directional functors, namely in those cases in which a preposition is used that can express more locative/directional meanings. The choice of the functor in a particular construction is usually determined by the context and semantics of the modified word. Cf.:

- Dej to poblizz plotu.DIR3 (=lit. Put it near (the) fence.)

Našel to pobliž plotu.LOC (=lit. (He) found it near (the) fence.)
Cesta vedla pobliž plotu.DIR2 (=lit. (The) path led near (the) fence.)

- Bydlí vedle našeho domu.LOC (=lit. (He) lives next_to our house.)

Položil to vedle našeho domu.DIR3 (=lit. (He) put it next_to our house.)
Vedle našeho domu.DIR2 vede cesta. (=lit. Next_to our house is (a) path.)

- Cesta vede mezi zahradami.DIR2 (=lit. (The) path leads between gardens.)

Našel cestičku mezi zahradami.LOC (=lit. (He) found (a) path between gardens.)
A similar situation arises with adverbs. Cf.:

- Musite zahnout vlevo.DIR3 (=lit. (You) must turn (to) (the) left.)

Šatny jsou vlevo.LOC (=lit. Changing_rooms are (on) (the) left.)
Prošli vlevo.DIR2 (=lit. (They) passed (on) (the) left.)
However, in a particular context the annotator can always choose a functor according to his/her understanding of the sentence. Cf.:

- transport důvěrných listin přes hranice (=lit. transport (of) confidential documents across (the) border)

The modification přes hranice (=lit. across (the) border) can mean either "where to?" (functor DIR3), or "in which direction?" (functor DIR2).

For the competition of different locative/directional modifications within valency frames of verbs see Section 6.2.3.1.5.3, "Competing locative/directional adjuncts (of different types)" and Section 6.2.3.1.5.2, "Addressee vs. locative/directional adjuncts".

Border with the DIR3 functor. Many locative modifications (vedle skřině (=lit. next_to (a) wardrobe), okolo stromu (=lit. around (a) tree), pobliž východu (=lit. near exit)) can be used as answers both to the question "where to?", and the question "where?". The choice of the functor follows usually from the semantics of the governing word. Compare the examples above.

However, many verbs (and their nominal and adjectival derivatives) that have the meaning of taking up a place or changing the position can be modified both by a modification with the LOC meaning, and by a modification with the DIR3 meaning. The choice of the functor depends on the context and semantics of the governing verb: when modified by a DIR3 modification, the verb has the meaning of taking up a place (which might be accompanied by a change in position); when modified by a LOC modification, the same verb has the meaning of changing the position and the LOC modification specifies the location where the change took place. Following the difference between the sentences usedl na postel.DIR3 (=lit. (he) sat_down on (a) bed) and usedl na posteli.LOC (=lit. (he) sat_down on (a) bed), the appropriate functor (DIR3 or LOC) is assigned to the modification ambiguous in its form. Cf.:

- Indiáni usedli vedle ohně. (=lit. (The) American_Indians sat_down by (the) fire.)

The modification vedle ohně (=lit. by (the) fire) can answer both the question kam usedli? (=lit. where_to did_they_sit_down?) (DIR3), and the question kde usedli? (where did_they_sit_down?) (LOC). The modification vedle ohně (=lit. by (the) fire), however, expresses rather taking up a place, so it will be assigned the DIR3 functor (the meaning of the LOC functor is not excluded if the Indians were first lying by the fire and something disturbed them, in such case the modification vedle ohně (=by the fire) in the sentence Najednou indiáni vedle ohné usedli. (=lit. Suddenly (the) Indians by (the) fire sat_up.) can express the change of position).

Those verbs which do not express the change of position but which can be modified both by a modification with the LOC and DIR3 functor, are to be preferrably assigned the DIR3 functor (in case the two modifications are formally identical). Cf.:

- Schoval se pod postel.DIR3 (=lit. (He) hid himself under (the) bed.)
- Schoval se pod postelí.LOC
- Schoval se pobliž východu.DIR3 (=lit. (He) hid himself near (the) exit.)

The modification poblizz východu (=lit. near (the) exit) is assigned the DIR3 functor (although it can also provide the answer to the question "where?").

Border with the TWHEN functor. If the form is identical (esp. the prepositions) and abstract expressions are used, the distinction between the functors LOC and TWHEN (see Section 7.3.1, "TWHEN") can be blurred, too. For details see Section 7.3.1.1, "Borderline cases with the TWHEN functor".

Borders with other functors. LOC modifications can also border on other than locative/directional or temporal functors. However, in a particular context the choice of the functor is usually unambiguous. Cf.:

- Stařec nařikal nad vesnicí. (=lit. (The) old_man was_weeping for (the) village/over (the) village.)

The modification nad vesnici (=lit. for (the) village/over/above (the) village) can express the location where the event takes place (then it is assigned the LOC functor), or the village can represent the cause of the old man's weeping and then the expression nad vesnici (=for the village) is assigned the CAUS functor.

### 7.5. Functors for implicational (causal) relations

Functors for implicational (causal) relations form a set of semantically differentiated functors for free modifications expressing various implicational (causal) relations between events or states. The choice of the functor reflects the type of the relation between these two events or phenomena (cause, condition, purpose, or concession etc.).

Modifications with these functors primarily modify verbs (and their nominalized forms).

## List of the functors for implicational (causal) relations

- AIM
- CAUS
- CNCS
- COND
- INTT


### 7.5.1. AIM

Definition of the AIM functor
The AIM functor (aim) is a functor assigned to free modifications which express purpose, the intended result of the event (expressed by the of governing word), or the aim for which the entity expressed by governing word is intended.

NB! A special group is set aside from the big group of purpose/aim modifications, a group assigned the INTT functor (see Section 7.5.5, "INTT").

Modifications with the AIM functor refer to an event or state someone wants to achieve and the achievement of which depends on the achievement of the event expressed by the governing word. From this it follows that this in principle concerns a relation between two events and the AIM modification is primarily expressed by a dependent clause (most often with the conjunction aby (=in_order_to) ). However, in some cases, the AIM modification can also be expressed by a prepositional phrase.

The definition of the AIM functor also implies that modifications with the AIM functor primarily modify verbs (and their nominalized forms). However, AIM modifications can also express the purpose an object is made for, or the purpose of a phenomenon. In such cases the modification with the AIM
functor can modify a non-derived noun, e.g. kapky na trávení (=lit. drops for digestion) ; voda k pití (=water to drink); kniha pro radost (=lit. (a) book for joy).

Forms. The basic forms AIM modifications are:

- dependent clause.

The most common forms:

| aby | Měl by mít v evidenci takový pořádek, aby se dalo kdykoli zjistit, zda u něho někdo <br> pracuje načerno. (=He should keep his records well-organized to show whether he <br> employs any persons without a work permit.) |
| :--- | :--- |
| proto - aby | Každý přece dělá vše proto, aby se dostal vzhůru. (=Everybody does everything <br> possible to get higher.) |

Example:
Jsem tu pro to, abych vám pomohl. AIM (=lit. (I) am here for that to you help.) Fig. 7.24

## - prepositional phrase.

The most common forms:

| $\mathrm{k}+3$ | Domek byl zastaven už dřive ke krytí půjčky (=The house was pawned earlier to <br> cover the loan.) |
| :--- | :--- |
| do+2 | Nebytové prostory nabizí město do pronájmu (=The city offers to rent the non-res- <br> idential premises.) |
| na+4 | Banky zpravidla na úhradu dluhů nepůjčují. (=Banks usually do not loan money <br> for debt repayment.) |
| $\mathrm{o}+4$ | kvalifikační turnaj o postup ze skupiny B (=a group B qualifiers tournament) |
| od+2 | Od toho jsou jiní. (=There are others for that.) |
| pro+4 | Pro povolení prodeje těchto potravin se musí vždy vést samostatné řízení. ( $=$ To <br> permit the sale of this food individual proceedings must always be held.) |
| pro případ+2 | Šetří sily pro případ potřeby. (=He is saving energy for case of need.) |
| v zájmu+2 | V zájmu zkvalitnění legislativniho procesu by měl každý zákon projít oběma ko- <br> morami. (=In the interest of making legislative process more efficient each bill is <br> supposed to be passed by both chambers.) |
| za+4 | hnutí důchodci za životní jistoty (=the of old age pensioners to promote life security) |
| za účelem+2 | Pracoval jen za účelem výdělku. (=He worked only to make money.) |

The AIM functor can also be used for the governing verbs of so-called false purpose clauses (for details see Section 6.5.4.2, "False dependent conjunctional clauses").

Figure 7.24. The AIM functor


Jsem tu pro to, abych vám pomohl. (=lit. (I) am here for that to you help.)

### 7.5.1.1. Borderline cases with the AIM functor

Border with the INTT functor. Modifications with the AIM functor are very close to modifications with the INTT functor (see Section 7.5.5, "INTT"). For more details see Section 7.5.5.1, "Borderline cases with the INTT functor ".

Border with the BEN functor. As far as the semantics and form are concerned, modifications with the AIM functor are close to modifications with the BEN functor (see Section 7.9.1, "BEN"). The intended goal, the result of the event can be of benefit for a person or an institution. However, it is possible to express both the person or institution who benefits from the event, and the purpose of the event, e.g.:

Vždy pracoval pro firmu.BEN, aby nebyl propušstěn.AIM (=lit. (He) always was_working for (the) firm to not_be dismissed.)

In those cases in which the meaning of "someone's benefit" is present, the BEN functor is to be preferred. Cf.:

- Vzdal se svých zálib ve prospěch svých dětí.BEN (=lit. (He) gave_up - his hobbies in favour (of) his children.)

The modification ve prospěch svých dětí (=lit. in favour (of) his children) is assigned the BEN functor.

Border with the ACMP functor. Modifications with the AIM functor can border on ACMP modifications (see Section 7.6.1, "ACMP"). For details see Section 7.6.1.1, "Borderline cases with the ACMP functor".

### 7.5.2. CAUS

Definition of the CAUS functor

The CAUS functor (cause) is assigned to modifications with the meaning of cause of an event or state expressed by the governing
word (i.e. the cause proper) but also to modifications with the meaning of a reason/motive motivating certain behaviour.

CAUS modifications comprise a wide range of various causal meanings; not only the most general causal meanings but also e.g. the source of the validity of the event or its effects. These semantic differences are expressed by various means. The semantic variation is also given by the used noun (if the modification is expressed by a prepositional phrase).

Modifications with the CAUS functor mainly modify verbs (and their nominalized forms). CAUS modifications can, however, also modify non-derived nouns ( světlo jen od malé lampičky (= lit. light only of (a) small lamp); bolest od rány nožem (=lit. pain from (a) wound caused_by (a) knife) ; smrt z hladu (=lit. death of starving ).

Forms. CAUS modifications are primarily expressed by a dependent clause. In case of semantic condensation, a modification with the CAUS functor can also be expressed by a prepositional phrase or adverbial expression.

The basic forms of CAUS modifications are:

## - dependent clause.

The most common forms:

| jelikož | Vypsání voleb bylo neoprávněné, jelikož šlo o sporné území. (=lit. The announcement <br> of election was illegitimate since it was the matter of a controversial area.) |
| :--- | :--- |
| ježto | Ježto vězňové nemají prakticky žádný příjem, automaticky se kvalifikují na př́jemce <br> této nadace. (=lit. Since prisoners have practically no income they automatically <br> qualify for receivers of this endowment.) |
| poněvadž̌̌ | Poněvadž agenda, přejde na kraje, zaměstnancư přibude. (=As paperwork will be <br> transferred to districts, the number of employees will increase.) |
| protože | Nepovím vám to, protože byste mi stejně nevěřili. ( $=$ I will not tell you because you <br> would not believe me anyway.) |
| proto - že | Uvádíme tuto podrobnost proto, že hraje důležitou roli při eventuálním reklamačním <br> řizení. (=We mention this because it plays an important role in possible claim proceed- <br> ings.) |

## - prepositional phrase.

The most common forms:

| díky+3 | Počet zákazniků vzrostl diky těmto opatřením na dvojnásobek. (=The number of customers doubled owing to these measures.) |
| :---: | :---: |
| kvůli +3 | Kvůli tobě mám ted' po dobré náladě. (=Because of you my good humour is gone.) |
| na+4 | Zpivali na povel (=They were singing by command.) ; Otevřel dopis na žádost přihližejícich. (=lit. He opened the letter on request of of the onlookers.) ; Zemřel na tuberkulózu. (=lit. He died of tuberculosis.) |
| nad+7 | Zoufal nad jejím neštěstím. (=lit. He despaired at her misfortune.) ; Radoval se nad dárkem jako malé ditě. (=lit. He rejoiced at the present like a little child.) |
| následkem+2 | Došlo k tomu následkem dlouhotrvajících deštư. (=lit. It happened as the consequence of longlasting rains.) |
| na základě+2 | Na základě dobrých výsledků se připravuje založení společného podniku. (=On the basis of good results a foundation of a collective enterprise is being prepared.) |
| od +2 | Bolí mě ruka od mávání. (=My hand aches from waving.) ; Dostal desetikorunu od cesty. (=He got ten crowns as a reward.) |


| pro+4 | Pro samou práci na mě zapomněl. (=For all the work he forgot about me.) ; Pro špatné ozvučení jsme nic neslyšeli. (=For the bad sound system we did not hear anything.) |
| :---: | :---: |
| v důsledku+2 | Sklizeň se letos zpozdila v důsledku špatného počasí. (=Harvest was late this year in the consequence of bad weather.) |
| vinou+2 | Vinou neslušně vychovaných jedinců se celý výlet pokazil. (=Due to badly behaving individuals the whole trip went wrong.) |
| vlivem+2 | Vlivem nepřiznivého vývoje se pozornost veřejnosti obrací kjiným tématům. (=Due to unfavourable development public attention turns to other topics.) |
| vzhledem k+3 | Vzhledem k vaší nepřitomnosti jsme přistroj vyzkoušeli sami. (=Becuase of your absence we tried the apparatus ourselves.) |
| z+2 | Z opatrnosti jsem raději mlčel.(=Out of caution I preferred to be silent.) ; Ze strachu před zloději se zamykali i ve dne. (=From fear of thieves they locked the house even by day.) |
| za+4 | Byl vyznamenán za zásluhy. (=He was honoured for his merits.) ; trest za přestupek (= punishment for an offence) |
| $z$ důvodu+2 | $Z$ důvodu nemoci zavřeno. (=Closed for illness.) |
| zásluhou+2 | Zásluhou Petra jsme byli první. (=Thanks to Peter we came first.) |

Example:
Diky vaší pomoci . CAUS jsme to stihli včas. (=lit. Thanks_to your help (we) - it made on_time.) Fig. 7.25

- noun in a non-prepositional case form.

The most common forms:
instrumental Rozstonal se chřipkou. (=He came down with flu.) ; Třásl se strachem. (=He was shaking with fear.) ; Zemřel hladem. (=He died of hunger.)

## - adverbial expressions.

Examples:
Di̊vodně. CAUS se domníváme, že nemáte pravdu. (=lit. Justly (we) assume that (you) are_not right.)

Potkal jsem ho zcela náhodně.CAUS (=lit. (I) met-him entirely by_chance.)
Považoval ho omylem. CAUS za spolužáka. (=lit. (He) considered him by_mistake (a) classmate.)
Bydlív tom domě oprávněně. CAUS (=lit. (He) lives in the house legitimately.)
Žáci se účastní cvičeni povinně.CAUS (=lit. Pupils - take_part (in) (the) exercise obligatorily.)
Kritizovali ho právem.CAUS (=lit. (They) criticised him by_right.)
Proč.CAUS jste se rozhodla žit v Bratislavě? (=lit. Why - - have_(you)_decided (to) live in Bratislava?)

Muselo zákonitě.CAUS dojít k chybě. (=lit. (It) had_to necessarily come to (a) mistake.)
Vysoký trest dostal zaslouženě.CAUS (=lit. (A) high penalty (he) got deservedly)

Jen zázrakem.CAUS se nezabil. (=lit. Only by_miracle (he) himself did_not_kill.)

Figure 7.25. The CAUS functor


Díky vaší pomoci jsme to stihli včas. (=lit. Thanks (to) your help - (we) it made in_time.)

### 7.5.2.1. Borderline cases with the CAUS functor

Borders with the manner functors. When a modification with the CAUS functor is expressed by a noun, prepositional phrase or by an adverbial expression, it can border on other adjunct functors, esp. on the functors expressing manner and its special variants (see Section 7.6, "Functors for expressing manner and its specific variants"). In unclear cases in which the causal meaning is not obvious, the modification is assigned a functor with a more general meaning. Cf.:

- Muselo zákonité.CAUS dojít k chybě. (=lit. (It) had_to naturally come to (a) mistake.)
- Zákonitě.MANN zvolí nástupce. (=lit. Legitimately (he) will_choose (a) successor.)

Border with the REAS functor. A dependent clause with the meaning of the CAUS functor corresponds semantically to a paratactic connection of clauses with the connectives nebot' (=as/since/because/for) , vždyt', totiž ; the root of such a paratactic structure is assigned the REAS functor (see Section 7.12.1.8, "REAS"). These two functors differ in the fact that when using the CAUS functor, the expressed lexical content is presented as both formally and semantically dependent, while when using the REAS functor, the expressed lexical content is presented as formally independent and, from the semantic point of view, the two paratactically connected contents retain their semantic independence as the consequence of formal parataxis. Cf.:

- Protože to byl.CAUS veselýy chlapik, měli jsme ho rádi. (=lit. As he was (a) jolly guy (we) - him liked.)
- Měli jsme ho rádi, vždvť’.REAS to byl veselý chlapik. (=lit. (We) liked - him - after_all (he) was (a) jolly guy.)

See also Section 6.6.2, "Coordination and apposition".

### 7.5.3. CNCS

Definition of the CNCS functor
The CNCS functor (concession) is assigned to free modifications expressing a cause (a concession) that is true but does not bring about the supposed consequential event or state, and at the same time an unexpected event expressed by the governig word takes place.

Modifications with the CNCS functor form a group of modifications with a distinct and unified meaning. There is a range of synonymous means for expressing concession.

Forms. CNCS modifications are primarily expressed by dependent clauses. In case of semantic condensation, a modification with the CNCS functor can also be expressed by a prepositional phrase or adverbial expression.

The basic forms of CNCS modifications are:

- dependent clause.

The most common forms:

| ač | Ač zemřeli, ještě mluví. (=Although they are dead, they still speak.) |
| :--- | :--- |
| ačkoli/v | Ačkoliv se mu tento požadavek jistě nepodaří prosadit, nakličené seminko nedůvěry <br> ještě vydatně zalil. (=Although he will certainly not manage to put this demand through, <br> he has supported the budding seed of mistrust.) |
| at' | At' jsou sebemenší, jsou dobré. (=However tiny they are good.) |
| byt' | Jeho kritika nás ničila, byt' byla sebeobaleněǰ̌í. ( $=$ His criticism ruined us however <br> indirect it was.) |
| i kdyby | Dám jí to, i kdyby to nechtěla. (=I will give it to her even if she does not want it.) |
| i když | V bytě máte příjemných 24 stupňů, i když venku mrzne, až praští. (=There are agreeable <br> 24 degrees in our apartment although it is freezing cold outside.) |
| přesto - že | Vyhrál, přestože nepatřil mezi favority. (=He won although he did not rank with the <br> favourites.) |
| I přesto, že posádka vozu byla oslepena slzotvornou látkou, lupiči se zalekli a z mista <br> činu ujeli. (=Although the crew of the car was blinded by lacrimator, the robbers be- <br> came frightened and fled from the scene of the crime.) |  |
| třeba/že | To je výrazný posun, třebaže pocit ukřivděnosti je procenty nevyčíslitelný. (=That is <br> a considerable progress, the feeling of injustice is inestimable by percentage though.) |

## Example:

Ač je.CNCS zlý, tento čin nespáchal. (=lit. Although (he) is bad this crime (he) did_not_commit.) Fig. 7.26

## - prepositional phrase.

The most common forms:

| navzdory +3 | Navzdory velkým studijním úspěchům se v praxi neuplatnil. (=Despite big success <br> in studies he has not asserted himself in practice.) |
| :--- | :--- |
| oproti +3 | Oproti očekávání se umistil mezi prvními deseti. (=Despite the expectations he was <br> placed among the first ten.) |
| proti +3 | Ditě se jí narodilo proti její vůli. (=Her child was born in spite of her will.) |


| přes+4 | Přes své dobré vychování se nezachoval nejlépe. (=In spite of his good behaviour <br> he did not act very well.) |
| :--- | :--- |
| při+6 | Při vší opatrnosti stejně několik hrnců rozbila. (=Despite all her carefulness she has <br> still broken several pots.) |
| vzdor+3 | Vzdor velké propagaci byla účast velmi nizká. (=Despite big promotion the attendance <br> was very low.) |

- adverbial expression (rarely).

Examples:
Chtě.CNCS nechtě museli jsme odejít. (=lit. Willingly_or_unwillingly (we) had_to leave.)
Natruc.CNCS to dělal dál. (=lit. Out_of_spite (he) it kept_doing.)
Šel tam přece.CNCS (=lit. (He) went there after_all.)
Přesto.CNCS přijdu. (=lit. Still (I) will_come.)
For frozen transgressive constructions see Section 6.5.1.3.1, "Frozen transgressive constructions".
Figure 7.26. The CNCS functor


Ač je zlý, tento čin nespáchal. (=lit. Although (he) is bad this crime (he) did_not_commit.)

### 7.5.3.1. Borderline cases with CNCS the functor

Border with the ADVS functor. Concession is sometimes difficult to distinguish from the adversative relation (ADVS; see Section 7.12.1.1, "ADVS") because both the relations are based on contradiction of two contents. In PDT, the border between the functors CNCS and ADVS is given by the used form. Paratactically connected clauses are re[resented with the ADVS functor; with a hypotactically connected clause the effective root node is assigned the CNCS functor. However, it is also possible to see the two forms as semantically different: in the case of parataxis (ADVS), two incongruous contents occur next
to each other and their cooccurence is not a usual situation. In the case of hypotaxis (CNCS), the contradiction follows from not fulfilling the causality. Cf.:

- Přestože pršelo.CNCS, šli na procházku. (=lit. Although (it) was_raining (they) went for (a) walk.)
- Pršelo, ale.ADVS přesto šli na procházku. (=lit. (It) was_raining - yet (they) went for (a) walk.)

See also Section 6.6.2, "Coordination and apposition".
Border with the ACMP functor. The CNCS functor can border on a the ACMP functor (see Section 7.6.1, "ACMP"). For details see Section 7.6.1.1, "Borderline cases with the ACMP functor".

### 7.5.4. COND

Definition of the COND functor
The COND functor (condition) is assigned to modifications that express a condition on which the event or state expressed by the governing word can happen.

The COND functor comprises all of the four traditionally distinguished types of condition:

- real condition:
- realized (Jestliže zazpíval i Pavel, zazpivám i já. (=If Paul sang, I will sing as well.) )
- possible (Jestliže přestane pršet, půjdeme na výlet. (=If it stops raining, we shall go for a trip.); Kdyby přestalo pršet, půjdeme na výlet. (=If it stopped raining, we shall go for a trip.) )
- unreal condition:
- not realized but possible (Kdybych řekl víc, prozradil bych už všechno. (=If I said more I would betray everything.))
- impossible (Kdyby se toho (byl) dožil tvi̊j táta, měl by radost. (=If my dad lived to see that he would be happy.) )
!!! Originally, there was an idea to use the CTERF functor to label the unreal condition. This functor is not presently used in PDT but its use in the future is a matter of current consideration. Then, the COND functor will be used only with modifications that express the two types of real condition, while modifications with the CTERF functor will be used with both types of unreal condition. The current version of PDT represents all the four types of condition with the help of the COND functor. The conditional mood (typical for the unreal condition) is represented by the value cdn of the verbmod grammateme (see Section 5.5.9, "The verbmod grammateme (verbal modality)").

Forms. COND modifications are mostly realized by dependent clauses. Real condition is expressed by an indicative verb form and the conditional conjunctions -li (=if/in_case_of), jestliže, když, pokud , or by a (present) conditional verb form and the conjunction $k d y b y$. Unreal condition is expressd by a present or past conditional verb form and the conjunction $k d y b y$. A special case of condition expressed by a verb is the condition expressed by the infinitive (and connected to the governing clause without a hypotactic conjunction). In case of semantic condensation, a modification with the COND functor can be expressed by a prepositional phrase and (rarely) also by an adverbial expression.

The basic forms of COND modifications are:

- dependent clause.

The most common forms:

| jak | Jak nepoví, budu na něho ješté více naléhat.(=lit. If (he) does_not tell, (I) will - him <br> even more press.) |
| :--- | :--- |


| jestli/že | Sestliže Izák zemře, komu otec préedá tuto víru? (=lit. If Isac dies, who father will_give <br> this faith (to)?) |
| :--- | :--- |
| kdyby | Kdyby tu byl_ zůstal, bylo by tu veseleji. (=lit. If (he) here had stayed, (it) would have <br> been in_here happier.) |
| když | Když budete potichu, něco se dozvite. (=lit. If (you) keep silent (you) something <br> will_learn.) |
| -li | Nepodaří-li se zvýšit výrobu, budou muset propustit desitky zaměstnanci̊. (=lit. <br> (We) do_not_manage-if (to) increase production, (they) will have_to dismiss dozens <br> (of) employees.) |
| pokud | Pokud by mělo pršet celý týden, bude lepší zůstat doma. (=lit. If (it) was_to rain all <br> week (it) would_be better (to) stay at_home.) |
| v případě, že | V případě, že se nedostaví, schi̊zi rozpustíme. (=lit. If (he) does_not come, (we) <br> (the) meeting shall_cancel.) |

Example:
Jestliže nepůjde .COND dobrovolně, použijeme násilí. (=lit. If (he) does_not_go willingly (we) shall_use force.) Fig. 7.27

## - prepositional phrase.

The most common forms:

| na+4 | Formulář vydává na telefonické požádáni zkušební ústav. (=lit. (The) form hands_out on telephonic request (the) conditioning house.) |
| :---: | :---: |
| po+6 | Zrušení účtu je po zaplacení ročniho poplatku zdarma. (=lit. (The) cancellation (of) account is after (the) payment (of) annual fee free_of_charge.) |
| pod+7 | mezinárodní dilna o hlasu a pro hlas pod vedením Idy Bittové-Kellarové (=lit. international workshop of voice and for voice under (the) leadership (of) Ida BittováKellarová) |
| při +6 | Při nedostatku vitamínu C se snižuje obranyschopnost organismu. (=lit. In_case (of) shortage (of) vitamin C diminishes (the) immunity (of) organism.) |
| $\mathrm{v}+6$ | $V$ této situaci je naprosto nevhodné o tom mluvit. (=lit. In this situation (it) is utterly unsuitable about it to_speak.) |
| v prípadě+2 | V připadě nemoci mě zastoupi kolega. (=lit. In case (of) illness me will_depute (my) colleague.) |
| za+2 | Bude hrát za podmínek běžných v druhé lize. (=lit. (He) will_play under (the) conditions common for (the) second league.) |
| za+4 | slunečníky a lehátka k použití za nizký poplatek (=lit. parasols and deckchairs for use for (a) low fee) |

- adverbial expression (in rare cases).

Examples:
Naše potřeby by jinak. COND mohly být přiští rok ohroženy. (=lit. Our needs could otherwise - be threatened next year.)

To by případně.COND mohlo ovlivňovat i rozhodnutí rady. (=lit. That might possibly - influence also (the) decision (of) (the) committee.)

Nepočitaje.COND v to vlastní práci, je výsledná cena velmi nízká. (=lit. Excluded - itself (the) work is (the) final price very low.)

For frozen transgressive constructions see Section 6.5.1.3.1, "Frozen transgressive constructions".

- infinitive .

Example:
Nebýt.COND vás, nebyl bych tady. (=lit. Were_not (for) you (I) would_not be here.)
For more on condition expressed by the infinitive see Section 6.5.1.1.1, "Condition expressed by an infinitive".

## - participle.

Example:
Upřimné řečéno.COND , nebyla to dobrá volba. (=lit. Frankly said , (it) was_not (a) good choice.)
For incongruent participial constructions see Section 6.5.1.2.1, "Non-agreeing participial constructions".

Figure 7.27. The COND functor


Jestliže nepůjde dobrovolně, použijeme násilí. (=lit. If (he) does_not_go willingly (we) shall_use force.)

### 7.5.4.1. Borderline cases with the cond functor

Borders with temporal functors. The modification with the COND functor borders especially on modifications expressing temporal meanings (see Section 7.3, "Temporal functors"), esp. when using ambiguous forms: the prepositions $v+6, p \check{r} i+6$ and the conjunction $k d y z ̌$ ( $=w h e n$ ). In these cases it is necessary to decide whether the modifications only has a temporal meaning, or whether it expresses also a condition on realization of the event. Cf.:

- Př̌i včerejší návštěvě.TWHEN jsem ztratil knoflik.(=lit. During yesterday's visit (I) - lost (a) button.)
- Při návštěvě.COND se chovej slušně. (=lit. When (on) (a) visit behave decently.)
- Když kohout zakokrhal.TWHEN, začalo se rozednívat. (=lit. When (a) cock crowed (it) began (to) dawn.)
- Když bereš.COND tyto léky, nesmiš chodit na sluničko. (=lit. If (you) take this medicine (you) must_not stay in (the) sun.)

Border with the ACMP functor. The COND functor can border on the ACMP functor (see Section 7.6.1, "ACMP"). See also Section 7.6.1.1, "Borderline cases with the ACMP functor".

Borders with the functors CONTRD and CONFR. A hypotactically expressed confrontation (otherwise represented with the help of the CONFR functor; see Section 7.12.1.2, "CONFR"), i.e. confrontation expressed by means of the hypotactic conjunctions jestliže (=if/in_case_of), -li and $k d y z ̌$, is represented as a false conditional clause. If the hypotactic conjunction zatímco (=while) ) is used instead, the CONTRD functor is assigned (see Section 7.9.2, "CONTRD"). For the borders between the functors COND, CONFR and CONTRD see Section 7.9.2.1, "Borderline cases with the functor CONTRD" and also Section 6.5.4.2, "False dependent conjunctional clauses".

### 7.5.5. INTT

Definition of the INTT functor
The INTT functor (intent) is assigned to a free modification expressing intention, purpose, aim of movement (relocation) expressed by the governing verb.

A modification with the INTT functor expresses the intent with which something or somebody is moving or changing location, or with which somebody invites or sends somebody somewhere. This modification is typical for verbs of motion and transfer, e.g. šel se koupat (=he went swimming); vydal se na představení do Národniho divadla (=he went to a performance in the National Theatre) ; odcestoval na návštěvu (=he left for a visit), and for verbs with the meanings "to invite " and "to send", e.g. pozval premiéra $\underline{k d i a l o g u}$ (=lit. he invited the prime minister to a dialogue); poslali ho pro svačinu (=lit. they sent him for a snack). If a verb of motion or transfer is substituted by the verb být (=to_be) the modification with functor INTT can also cooccur with this verb, e.g. byl se koupat (=lit. (he) was - to_swim); byli jsme to obhlidnout (=lit. (we) were - it to_have_(a)_look (at).

NB! INTT modifications are considered exclusively adverbal modifications, i.e. they only modify verbs and to their nominalized forms, e.g. trenér vyztuži obranu Urbanem, přicházejícím na hostování.INTT ze Sparty (=lit. (the) coach will_support defence (by) Urban coming to host from Sparta; cestování za nákupy .INTT (=lit. travelling for shooping). Modifications with the intent meaning modifying non-derived nouns are assigned the AIM functor.

Forms. INTT modifications mostly occur in the infinitival form but prepositional phrases are also used sometimes. INTT modificatins cannot be expressed by a dependent clause; a dependent clause with a corresponding meaning is always assigned the AIM functor.

The basic forms of INTT modifications are:

## - infinitive.

Examples:
Šel nakoupit.INTT , aby doplnil zásoby. (=lit. (He) went shopping to replenish (the) stock.) Fig. 7.28

Návštěvníci sem prijižzdějí lyžovat.INTT (=lit. Visitors here come (to) ski.)
Poslali ho nakoupit.INTT (=lit. (They) sent him shopping.)
Jen japonskému turistovi upadla lžička, jak spěchal zmáčknout. INTT spoušt'svého nikonu. (=lit. Only (the) Japanese tourist dropped (his) teaspoon as (he) hurried (to) press (the) release (of) his Nikon.)

Když spotřebitel zakoupenou obuv přijde reklamovat. INTT , tak musime jako prodejci reklamaci prijmout. (=lit. When (a) customer (the) bought footwear comes (to) reclaim then (we) have_to as sellers (the) claim accept.)

Ten, komu se na Slovensku nelibi, může sbalit kufry a odejít budovat. INTT nové porádky jinam. (=lit. Everybody who - (it) in Slovakia does_not_like can pack (their) suitcase and leave to_establish new order somewhere_else.)

## - prepositional phrase .

The most common forms:

| $\mathrm{k}+3$ | Přijede kjednání (=lit. (He) will_come to (the) meeting); Pozvali ho k dialogu. (=lit. (They) <br> invited him to (a) dialogue.) |
| :--- | :--- |
| na+4 | Byli pozváni na oběd (=lit. (They) were invited to lunch); Chodili spolu na procházky (=lit. <br> (They) went together for walks); Šel na jahody. (=lit. (He) went picking_strawberries.) |
| na+6 | Izraelský premiér je v Praze na návštěvě. (=lit. (The) Israeli prime minister is in Prague <br> on (a) visit.) |
| pro+4 | Šel pro lékaře. (=lit. (He) went for (a) doctor.) |

Figure 7.28. The INTT functor


Šel nakoupit, aby doplnil zásoby. (=lit. (He) went shopping to replenish (the) stock.)

### 7.5.5.1. Borderline cases with the INTT functor

Border with the AIM functor. The INTT functor borders especially on the AIM functor (see Section 7.5.1, "AIM"). A summary of the differences between these two functors:

- The INTT functor is a modification never expressed by a clause, it is expressed by a verb in the infinitive or by a prepositional phrase, and it expresses the meaning of intent/purpose when it follows verbs of motion or transfer and when it follows verbs with the meanings "to invite" and "to send".

Modifications expressed by a dependent clause (esp. with the conjunction aby (=in_order_to) ) that have the meaning of intent/purpose are always assigned the AIM functor even if they occur after verbs of motion or transfer and after verbs with the meanings "to invite" or "to send".

Compare:

- Šel tam pomáhat.INTT (=lit.(He) went there to help.)
- Šel tam, aby jim pomohl.AIM (=lit.(He) went there to help them.)
- When compared to AIM modifications, a modification with the INTT functor has a closer relation to the governing verb (or to its nominalization). With verbs of motion or migration, or verbs with the meaning "to invite" or "to send", the two types of modification can cooccur. The fact that these are two different modifications, and not two modifications with the same function, is supported by the imposssibility to coordinate them.

Compare:

- Šel tam pomáhat. INTT , aby to měli.A IM dřive hotové. (=lit. (He) went there (to) help so_that (they) it would_have sooner ready.)
- Šel nakoupit. INTT , aby mëli co jíst.AIM (=lit. (He) went shopping so_that (they) would_have something to_eat.).
- Modifications with the INTT functor are considered exclusively adverbal, i.e. they only modify verbs and their nominalized forms. Modifications of intent modifying non-derived nouns are assigned the AIM functor. Compare:
- cestováni za nákupy. INTT (=lit. travelling for shopping)
- voda kpití.AIM (=lit. water to drink)
!!! This is how the intent modifications are analyzed in PDT. However, it has turned out that the border between the INTT and AIM functors needs to be made more precise, esp. the condition on the identity of the Actors of the two events is to be taken into account. Also the relation between the clausal and non-clausal expression of the intent/purpose needs reconsideration. In the current version of PDT, these two ways of expressing intent/purpose are annotated differently.

Border with the DIR3 functor. INTT modifications also often border on directional modification (the meaning "where to"; DIR3; see Section 7.4.3, "DIR3"). This competition is determined by the semantics of the verbs of motion or transfer, or verbs with the meaning "to send" or "to invite". These verbs primarily indicate direction; intent modifications (INTT) are only secondary with them. Cf.:

- Přijel do Prahy.DIR3 (=lit. (He) came to Prague.)
- Přijel do Prahy.DIR3 na schůzku. INTT s premiérem (=lit. (He) came to Prague on (a) meeting with (the) prime_minister.).
- Přijel na schi̊zku. INTT s premiérem. \{\#Obl fm. DIR3\} (=lit. (He) came on (a) meeting with (the) prime_minister.)

In the sentence Přijel na schůzku s premiérem. (=lit. (He) came on (a) meeting with (the) prime_minister), the prepositional phrase na schůzku (=lit. on (a) meeting) is assigned the INTT functor and the ellipsis of the DIR3 modification is marked in the tree (because it is an obligatory modification).

For the competition between INTT and DIR3 - from the poit of view of valency - see Section 6.2.3.1.3.5, "Status of the modification expressing "intention" (INTT) after verbs of "motion"".

### 7.6. Functors for expressing manner and its specific variants

The functors for expressing manner and its specific variants are a rather diverse group of adjunct functors that express all kinds of inner characteristics of events, i.e. the manner in which the event (state) proceeds/comes about. Manner can be expressed in different ways - by comparison, by specifying the result or instrument used for accomplishing the event, by expressing quantity etc.; these different ways of expressing manner correspond to different (manner) functors.

Modifications with these functors modify verbs (also nominalizations), adjectives and adverbs. However, in some cases, they can also modify non-event nouns (orchestr bez dirigenta.ACMP). (=an orchestra without a conductor)

Valency. Modifications with the manner functors (i.e. manner and its specific variants) are typically optional. However, there are also verbs subcategorizing for manner modifications (there are usually more alternatives - possibilities how to express manner). See also Section 6.2.3.1.5.3, "Competing locative/directional adjuncts (of different types)".

## List of the functors for expressing manner and its specific variants

- ACMP
- CPR
- CRIT
- DIFF
- EXT
- MANN
- MEANS
- REG
- RESL
- RESTR


### 7.6.1. ACMP

Definition of the ACMP functor

The ACMP functor (accompaniment) is a functor for such an adjunct which expresses manner by specifying a circumstance (an object, person, event) that accompanies (or fails to accompany) the event or entity modified by the adjunct.

Subfunctors. The ACMP functor is further specified by subfunctors. See also Section 7.13.1.1, "Subfunctors with the ACMP functor".

Modifying nouns and verbs. Adjuncts with the ACMP functor modify both nouns and verbs. If the adjunct with the ACMP functor modifies a noun, the accompaniment meaning is clearer; if it modifies a verb, this meaning is weaker and the adjunct expresses rather a circumstance accompanying the main event.

Modifying nouns. Modifications with the ACMP functor modify nouns especially in the following cases:

- two (or more) people or objects are together (coordination in a hypotactic form).

Examples:
Tatínek s maminkou.ACMP šli do divadla. (=lit. Father with Mother went to theater) Fig. 7.29
babička bez dědečka.ACMP (=Grandma without Grandpa)
všechno bez toho.ACMP nejdůležitějšsiho (=everything without the most important thing)
válečná plavidla včetně bojových letadel.ACMP a bitevních vrtulniků.ACMP (=warships including air force)

NB! These cases are not analyzed as paratactic structures. The choice of the form is respected (just like with false dependent clauses; see Section 6.5.4, "False dependent clauses"). The second member (denoting the accompanying entity) is dependent on the first one and is assigned the ACMP functor.
!!! The reason for adopting this solution was the fact that sometimes it is difficult to distinguish cases of hypotactic coordination from real accompaniment (e.g. král se svým sluhou (=the king with his servant)).

- a person and object are viewed as belonging together.

Examples:
Do tramvaje nastoupila žena skvětinou.ACMP ( $=A$ woman with a flower got on the tram)
muž bez klobouku.ACMP (=a man without a hat)

Modifying verbs. Modifications with the ACMP functor modify verbs in the following cases:

- expressing a circumstance accompanying the main event.

Examples:
Odešel s úsměvem.ACMP na tváři. (=He left with a smile on his face) Fig. 7.30
Vrátil se bez nálady.ACMP (=He returned in a bad mood; lit. without mood)
Udělali to s suzzasem.ACMP (=They did it in (lit. with) astonishment)
This type also includes cases of expressing a vague circumstance by a dependent clause introduced by stim, že (=lit. with that that) or bez toho, aby (=lit. without that that). The effective root node of the dependent clause is assigned the ACMP functor since the connective does not signal clearly enough the semantic relation between the clauses (like purpose, condition etc.). This vaguenes is expressed by the ACMP functor.

## Examples:

Koupili dvě sady lega stím, že dají.ACMP každému synovi jednu. (=They bought two sets of lego, planning to give one to each of their sons; lit. with that that they give...) Fig. 7.31

Vyšetřovatel nakonec případ ukončil s tím, že oheň zapříčinila.ACMP nedbalost pracovniků stavebni firmy. (=The investigator closed the case with the conclusion that (lit. with that that) the fire was caused by the negligence of the workers)

Požádal o přispěvky stím, že dárci musí uvést.ACMP i údaje o sobě. (=He asked for the financial contribution knowing that (lit. with that that) he had to provide personal details)

Takové je stanovisko fotbalového klubu s tím, že na úkol přebudovat.ACMP mužstvo zbývá ještě půl roku. (=Such is the standpoint of the football club, there being the fact that (lit. with that that) there is still half a year to rebuild the team)

Oznámilo to ministerstvo zahraničís stím, že nejprve budou stažena. ACMP válečná plavidla včetně bojových letadel a bitevnich vrtulniku․ (=The Foreign Ministry announced that and said that (lit. with that that) the warships as well as the air force will be withdrawn)

Tenis může být podívanou i bez toho, aby po kurtě chodily.ACMP polonahé děvy s tabulemi oznamujícimi skóre. (=Tennis can be a good show even without (lit. without that that) half-naked girls walking on the tennis court...)

NB! The prepositional phrases stím and bez toho in stím, že and bez toho, aby contain supporting expressions. See also Section 6.5.3.1, "Correlative pairs with the supporting expression "ten"".

NB! If the ACMP modification is in a distance relation with a noun, it also modifies the event itself (e.g. Tatinek šel do divadla s maminkou (=lit. Dad went to theater with Mum)). In such cases, the ACMP adjunct depends on the verb (and it is a case of vague circumstance). See also Section 6.11.1.1, "Ambiguous relations with adjuncts expressed by prepositional phrases".

Forms. The basic forms of the ACMP modification are:

## - prepositional phrase.

The most common forms:

| bez+2 | Pracuje bez brýlí. (=He works without glasses) |
| :--- | :--- |
| ruku v ruce s+7 | Podniká ruku v ruce s falešností. (=He runs his business dishonestly; lit. hand <br> in hand with falsity) |
| s+7 | Chodí s holí. (=He walks with a stick) |
| spolu s+7 | Spolu s tebou to zvládnu. (=I can handle it with you) |
| společně s+7 | Učitelé společně s žáky odjeli na kurz. (=The teachers (together) with the pupils <br> left for the course) |
| v čele s+7 | skupina deseti odborniků v čele s ředitelem (=a group of ten professionals with <br> the manager in the lead) |
| včetně+2 | školní pomůcky včetně sešitů (=shool aids, including jotters) |
| v souvislosti s+7 | V souvislosti s růstem mezd se zvýšla poptávka. (=In connection to the wage <br> rise, the demand increased) |
| ve spojení s+7 | Udělal to ve spojení s Pavlem. (=He did it together with Pavel) |
| zároveň s+7 | Vláda zároveň s ri̊stem počitá i s poklesem. (=The government counts on rise <br> as well as fall) |

## - dependent clause.

The most common forms:

| bez toho - aby | Dodavatelé mají povinnost vykupovat vratné obaly bez toho, aby je vázali na nákup <br> zboži. ( $=$ The suppliers are obliged to buy back returnable containers without <br> making it dependent on...) |
| :--- | :--- |
| s tím - že | Koupili dvě sady lega s tim, že dají každému synovi jednu. (=They bought two sets <br> of lego, planning to give one to each of their sons; lit. with that that they give...) |

Figure 7.29. The ACMP functor


Tatinek s maminkou šli do divadla. (=lit. Dad with Mum went to theater)
Figure 7.30. The ACMP functor


Odešel s úsměvem na tváři. (=lit. (He) left with smile on face)

Figure 7.31. The ACMP functor


Koupili dvě sady lega s tím, že dají každému synovi jednu. (=lit. (They) bought two sets (of) lego with that, that (they) give each son one)
!!! In the present version of PDT, the ACMP functor has in fact two meanings:

- (positive or negative) accompaniment (connection with something)
- vague accompanying circumstance.

The original meaning of the ACMP functor is the first meaning mentioned. The second meaning started being analyzed using the ACMP functor only later, during the annotation. It has turned out, however, that it is not quite adequate to unite the two meanings. It will be, therefore, necessary to consider introducing a new functor for the second meaning.

### 7.6.1.1. Borderline cases with the ACMP functor

Border with the MANN functor. The ACMP is very close to the most general functor for expressing manner: the MANN functor (see Section 7.6.6, "MANN"). See also Section 7.6.6.1, "Borderline cases with the MANN functor".

Borders with arguments. ACMP modifications are adjuncts and they are obligatory only very rarely. However, the ACMP modifications sometimes border on the valency positions like the Addressee and Patient; the latter are to be distinguished on the basis of the criteria for distinguishing arguments and adjuncts (see Section 6.2.1.1, "Criteria for distinguishing between inner participants (arguments) and free modifications (adjuncts)") and the lexical semantics of the modification. Cf.:

- teroristé se sešli $\underline{\text { s granáty. }}$. CMP u opasku (=the terrorists met with grenades by their belts)
- teroristé se sešli $\underline{\text { v veliteli } . \mathrm{PAT}}$ (=the terrorists met with the leaders)

Borders with the functors for implicational relations. With modifications expressed by the prepositional phrase $s+7$, the ACMP functor can get close to the functors for implicational relations (see Section 7.5, "Functors for implicational (causal) relations"). The semantics of the modifications with the ACMP functor is by definition very broad; in one of its meanings ACMP refers to accompanying circumstances of the event. In certain cases, the meaning of an accompanying circumstance can be very close to concession (CNCS), condition (COND) or aim (AIM). The prepositional phrase $s+7$ never expresses concession, condition or aim unambiguously; on the contrary, it primarily indicates the (vague) accompanying circumstance: therefore, such prepositional modifications get the ACMP functor. Cf.:

- Nastoupil na misto s cilem.ACMP ziskat praxi v oboru. (=He started the new job with the aim to get practical experience in the field)

It is not quite clear whether the modification s cilem ziskat praxi v oboru expresses aim; therefore, the ACMP functor is assigned.

It is not quite clear whether the modification se špatnou technikou expresses concession; therefore, the ACMP functor is assigned.

- $\underline{S}$ tvými schopnostmi.ACMP bych dokázal vice (=I would be able to do more with your abilities).

It is not quite clear whether the modification stvými schopnostmi expresses condition; therefore, the ACMP functor is assigned.

Similarly, the ACMP functor is assigned to (the effective root nodes of) dependent clauses introduced by stím, že and bez toho, aby, which also do not express the semantic relation to the matrix clause (e.g. concession, aim, condition) unambiguously.

Border with the TPAR functor. The ACMP functor can also border on temporal functors, especially TPAR (see Section 7.3.7, "TPAR"). See Section 7.3.7.1, "Borderline cases with the TPAR functor".

Border with the ATT functor. The ACMP functor can also border on the ATT functor (see Section 7.7.1, "ATT"). See Section 7.7.1.1, "Borderline cases with the ATT functor".

### 7.6.2. CPR

Definition of the CPR functor with the CPR functor".

CPR modifications have primarily the form of a dependent clause; however, not only events but also entities can be compared - the CPR modification then depends on a noun.

Constructions with the meaning of comparison are discussed in detail in Section 8.4, "Constructions with the meaning of "comparison"".

Forms. The basic forms of modifications with the CPR functor are:

- dependent clause.

The most common forms:

| než | Musíme udělat nepochybně menší a snazší manévr, než byl ten minulý. (=We have to do a <br> smaller and easier manoeuvre than was the last one) |
| :--- | :--- |
| nežli | Na Afriku zbývají jen asi 3 miliardy dolarů ročně, což je méně, nežli obdržela loni Malajsie. <br> (=... which is less than Malaysia got last year) |
| jako | Podminky pro vznik heroinové epidemie jsou až nebezpečně přiznivé, podobně jako tomu <br> bylo v Americe beatnické éry. (=The conditions are good, just like they were in America in <br> the beatnik era) |

For a discussion on cases in which the modifications introduced by než, nežli and jako are not analyzed as dependent verbal clauses, see Section 8.4, "Constructions with the meaning of "comparison"".

## - prepositional phrase.

The most common forms:

| nad+4 | nad slunce jasnější (=lit. over sun clearer; meaning: it is patently obvious that..) |
| :--- | :--- |
| naproti+3 | Naproti tomu Jirka přišel včas. (=On the contrary, Jirka was on time) |
| na rozdíl od+2 | Narozdil od tebe už to má hotové. (=Unlike you, she is finished with it) |
| oproti+3 | Oproti tobě je starý. (=He is old compared to you) |
| proti+3 | V prvním čtvrtletí 1994 vzrostl HDP proti stejnému období předchoziho roku <br> 1993 o 3.5 procenta. (=...the GDP increased by 3.5 per cent, compared to the <br> same period last year) |
| s+7 | S léty přibývají zkušenosti (=With years, experience grows) |
| v porovnání s+7 | V porovnání s tebou budu vždycky lepší. (=When compared to you, I'll always <br> be better) |
| v porovnání k+3 | Obchodní vztahy mezi Českou republikou a Kanadou patřily v minulosti v <br> porovnání k ostatnim průmyslové vyspélým zemím k okrajovým. (=The business <br> contacts...were marginal, in comparison to other developed countries) |
| ve srovnání s+7 | Akcie českých podniki̊ jsou ve srovnání se zahraničím stále vysoce nadhodno- <br> ceny. (=...overvalued, in comparison to the situation abroad) |

Example:
Ve srovnánís tebou.CPR budu vždycky lepši. (=Compared to you, I'll always be better) Fig. 7.32

- adverbial expressions (only marginally).

Example:
Počinal si hazardérsky.CPR (=lit. (He) acted REFL hazardously; i.e. like a daredevil)

Figure 7.32. The CPR functor


V porovnání s tebou budu vždycky lepší. (=lit. In comparison with you, (I) will_be always better)

### 7.6.2.1. Borderline cases with the CPR functor

Border with the MANN functor. The CPR functor is very close to the most general functor for expressing manner: the MANN functor (see Section 7.6.6, "MANN"). See Section 7.6.6.1, "Borderline cases with the MANN functor".

Border with the RESTR functor. Comparative constructions (the CPR functor), especially in constructions with the connective než, can get very close to constructions with the meaning of a restriction (the RESTR functor; see Section 7.6.10, "RESTR"). See Section 8.6.1.2, "Constructions signifying "restriction" attached by connectives".

Functors bordering as the result of the multifunctional conjunction "jako". The CPR functor can get very close to the COMPL functor (see Section 7.11, "Functor for the predicative complement (COMPL)") and even to the paratactic connection functors: CONJ (see Section 7.12.1.2, "CONFR") and APPS (see Section 7.12.2, "Functor for apposition (APPS)"). This is caused by the fact that the conjunction jako carries the meaning of all the mentioned functors; it is both a coordinating and subordinating connective. See Section 8.17.4, "The conjunctions "než" and "jako"".

### 7.6.3. CRIT

Definition of the CRIT functor
CRIT (criterion) is a functor for such an adjunct that expresses manner by providing a measure or criterion (norm, rule) essential for the measurement, evaluation, classification or recognizing the event (state) etc.

The CRIT functor comprises several meanings, especially:

- regulation, collection of rules valid for the event.

Examples:
Byl odsouzen v souhlase spředpisy.CRIT (=He was sentenced in compliance with the regulations) Fig. 7.33

Podle regulí.CRIT GATT lze toto opatření přijmout maximálně na dobu šesti měsiců. (=According to the GATT rules, it is possible to take the measure..)

Na základě trestniho zákoniku. CRIT mu byla přiřknuta jen finanční pokuta. (=On the basis of the Criminal Code, they only imposed a fine on him)

Volby neproběhly tak úplně $v$ duchu ústavy.CRIT (=The election didn't really pass in the spirit of the Constitution)

V rozporu se zákonem.CRIT č. 202 z roku 1990 u nás existují dvě čiselné loterie. (=In contradiction to the law, there are two lotteries...)

- instructions, directions followed when carrying out the event.

Examples:
Př̌slušné certifikáty bude vydávat na základě dodaných podkladů. CRIT přislušná zkušebna. (=The certificates will be issued on the basis of the delivered instructions...)

Na základě připomínek.CRIT manažera chtějí v Teplicich postavit novou výrobní halu. (=They want to build a new production hall in Teplice, on the basis of the manager's comments)

Dalši vývoj HDP lze odhadovat na základě analýzy.CRIT vlivů hlavních faktorů. (=It is possible to estimate the next development of GDP on the basis of the analysis of the main factors)

Snaží se žit po vzoru velkých osobností.CRIT (=He's trying to live following the example of great personalities)

- criterion for classification, evaluation, recognition etc.

Examples:
Znalec většinou pozná, kdy byl obraz namalován, podle motivu.CRIT či způsobu.CRIT malby. (=An expert is usually able to tell who painted the picture according to the motif or the way of painting)

Sazby se účtují podle ujetých kilometrů.CRIT (=The rates are according to the mileage)
Od státu obdrží přispěvek podle počtu.CRIT získaných hlasů. (=They get a financial contribution according to the number of votes)

Misto je sjednáváno na základě přání.CRIT zákaznika. (=The venue is arranged according to the customer's wishes)

Zkoušky jsou sestavovány úměrněk věku. CRIT dětí. (=The exams are prepared adequately to the age of the children)

- person/institution (the person/institution's opinion, experience) according to which the event applies.

Examples:
Podle náměstka.CRIT bude třeba svolat mimořádné zasedáni. (=According to the deputy, it will be necessary...) Fig. 7.34

Podle názoru vedení.CRIT lázní by to měli podporovat jak lékaři, tak i samotní pacienti. (=According to the management of the spa, both doctors and patients should support it)

Odstraňování bariér může být podle ministra.CRIT Karla Dyby někdy významnější pomocí než finanční podpora státu. (=According to $K D$, removing the barriers might be more important than the financial help)

Podle mých zkušeností.CRIT se však podniky praktikantům mnohdy vůbec nevěnovaly. (=In my experience, the factories sometimes ignored the trainees completely)

- objective source of the information validity.

Examples:
Podle našich statistik.CRIT utratili návštěvnici v SR 45 milionů dolarů. (=According to our statistics, the visitors spent 45 million dollars)

Podle našich údajů.CRIT vitézí strana ODS. (=According to our information, ODS is winning)
Podle poslednich priozkumů.CRIT má největši podporu koalice. (=According to the latest survey, the Coalition has the strongest support)

Ve světle těchto nových pokusů.CRIT se druhá metoda ukázala jako správná. (=In the light of the new experiments, the second method proved to be right)
!!! The CRIT functor is used for representing several different meanings so far. However, it has turned out that some of the meanings are in a closer relation to the governing node than other. There can also be two CRIT modifications in a single sentence, which have a slightly different meaning. Cf.:

- Podle učitele. CRIT piší žáci podle pravidel.CRIT dobře. (=According to the teacher, the pupils write according to the rules)

It will be necessary to reconsider the meanings of the CRIT functor and perhaps divide it into two.
Forms. CRIT modifications usually make use of certain specialized secondary prepositions. The basic forms of the CRIT modification are:

## - prepositional phrase.

The most common forms:

| dle +2 | dle pravidel (=in compliance with the rules); dle vyhlášky (=in conformity with the regulation); dle jeho názoru (=in his opinion); Posuzuje lidi dle obleku. (=He judges people according to their clothes) |
| :---: | :---: |
| na základě+2 | na základě dohody (=based on the agreement) |
| podle +2 | podle obchodniho zákoniku (=in accordance with the code); podle našich informaci (=according to our information); podle pana premiéra (=according to the Prime Minister) |
| po vzoru+2 | po vzoru velkých osobností (=following the example of great personalities) |
| přiměřeně +3 | přiměřeně novým podminkám (=adequately to the new conditions) |
| úměrně $\mathrm{k}+3$ | úměrně k věku (=adequately to the age) |
| úměrně $\mathrm{s}+7$ | úměrněs výškou postavy (=proportionally to the tallness) |
| v duchu+2 | $v$ duchu ústavy (=in the spirit of the Constitution) |
| ve shodě +7 | ve shodě s občanským zákonikem (=in conformity with the Civil code) |
| ve smyslu +2 | ve smyslu toho paragrafu (=in the sense of the article); ve smyslu jeho představ (=in the sense of his ideas) |
| ve světle+2 | ve světle tohoto principu (=in the light of the principle) |
| v rozporu $\mathrm{s}^{+} 7$ | Každá systémová změna je v rozporu se systémovým pravidlem. (=Every systemic change is in contradiction to a systemic rule) |
| v souhlase s+7 | $v$ souhlase s předpisy (=in accordance with the regulations) |


| $v$ souladu $\mathrm{s}+7$ | $v$ souladu se změnami $v$ pravidlech (=in conformity with the changes in the rules) |
| :--- | :--- |

Dependent clause. CRIT modifications can only be expressed by a dependent clause with the help of a supporting expression; e.g.:

Posuzuje lidi podle toho, jak se chovají.CRIT (=He judges people according to their behavior; lit. according that how (they) REFL behave)

Výše trestu se stanoví podle toho, jaké budou.CRIT platné normy. (=The height of the sentence will be decided on according to the valid norms; lit. according_to that what will_be valid norms)

Figure 7.33. The CRIT functor


Byl odsouzen v souhlase s predpisy. (=lit. (He) was sentenced in conformity with regulations)

Figure 7.34. The CRIT functor


Podle náměstka bude třeba svolat mimořádné zasedání. (=lit. According to deputy will_be necessary to_call emergency session)

### 7.6.3.1. Borderline cases with the CRIT functor

Border with the MANN functor. The CRIT functor is very close to the most general functor for expressing manner: the MANN functor (see Section 7.6.6, "MANN"). See Section 7.6.6.1, "Borderline cases with the MANN functor".

### 7.6.4. DIFF

Definition of the DIFF functor
DIFF (difference) is a functor for such an adjunct that expresses manner by specifying the difference in quantity or quality between the compared events, states or entities or between the initial and final state of the event.

The DIFF functor is used for two kinds of differences:

- difference in quantity or quality between the compared events, states or entities (w.r.t. a property).

Examples:
Nabizejí ho o 100 tisić.DIFF levněji. (=They offer it cheaper by 100 thousand) Fig. 7.35
Pavel je o 2 cm.DIFF větší než já. (=Pavel is taller than me by 2 cm )
$V$ českolipské ulici Jiřiho z Poděbrad bylo najednou o něco.DIFF vice kysliku. (=Suddenly, there was a bit more oxygen...)
$V$ osmi letech jsem se chtěl vyrovnat $\underline{o}$ dvanáct let.DIFF staršímu bráchovi. (=...a twelve years older brother)

Není nikterak naši zásluhou, že jsme o půl.DIFF století moudřejší. (=...we are wiser by half a century)

Slavné operní hvězdy se u nás objevily o dva roky.DIFF později než komety pop music. (=The famous opera singers emerged two years later than the pop stars)

In this meaning, the DIFF modification modifies an adjective or adverb in comparative.

- difference in quantity or quality between the initial and final state of the event (with verbs of change).

Examples:
Výroba se zvýsila o 10 procent.DIFF (=The production was increased by 10 per cent)
Počet pracovnikỉ klesl o šestinu.DIFF (=The number of workers was reduced by one sixth)
Zdražili ceny paliva o 50 haléřì.DIFF (=The fuel prizes went up by 50 heller)
Stavba byla předimenzována až o sto procent.DIFF (=The building was designed too large -by almost 100 per cent)

Překročili plán o 200000 korun.DIFF (=They exceeded the plan by 200000 crowns)
Ustoupil o krok.DIFF dozadu. (=He stepped one step back)
Odsunuli dovolenou o rok.DIFF (=They put off their holiday until next year)
In this meaning, the DIFF modification modifies a verb.
Forms. The basic forms of the DIFF modification are:

- prepositional phrase.

The most common forms:

> | $\mathrm{o}+4$ | $\begin{array}{l}\text { Tuzemský výrobce dodal hlavy o čtyři dny později. (=The producer delivered the heads four } \\ \text { days later) }\end{array}$ |
| :--- | :--- |

Dependent clause. DIFF modifications can only be expressed by a dependent clause with the help of a supporting expression; e.g.:

Návštěva byla o to zajímavějisí, že na letecký priomysl dolehla.DIFF krize. (=The visit was all the more interesting because of the fact that...)

Specific forms. The following constructions are special cases of DIFF modification:

- constructions with čím-tím.

For example: Čím je víno starší, tím je lepši. (=The older the wine, the better it is)

- constructions with čím dál tím + comparative.

For example: Mají čím dál vic prostředků. (=They have more and more money)

- constructions with tím + comparative.

For example: Tím méně jsou dějiny dilem několika intelektuálů. (=Even less is history work of a couple of intellectuals)

This type of construction is discussed in Section 8.5, "Specific constructions with the meaning of "difference"".

Agreeing form of an adjective. With event nouns (ending with -ní or $t i$; see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events"), the DIFF modification can also be expressed by an agreeing adjective form.

Example:
centimetrové.DIFF zlepšení nejlepšiho výkonu (=lit. centimeter.adj improving (of) best performance)
Figure 7.35. The DIFF functor


Nabizejí ho o 100 tisic levněji. (=lit. (They) offer it by 100 thousand cheaper)

### 7.6.4.1. Borderline cases with the DIFF functor

Border with the EXT functor. Semantically, the DIFF functor is very close to the EXT functor (see Section 7.6.5, "EXT"). Cf.:

- Ustoupil trochu.EXT (=He stepped back a bit)

Ustoupil krok.EXT stranou. (=He made one step aside/stepped one step aside)
Popojít kousek.EXT (=to make a couple of steps/walk a short distance)

- Ustoupil o trochu.DIFF (=He stepped back a bit)

Ustoupil o krok.DIFF stranou. (=He made one step aside/stepped one step aside)
Popojít o kousek.DIFF (=to make a couple of steps/walk a short distance)
It seems that under certain conditions the adverb and the prepostitional phrase $o+4$ are synonymous. However, this is not always the case. The prepostional phrase $o+4$ cannot be used with verbs that do not explicitely express a change between the initial and final state. Cf.:

- jít kilometr.EXT (=walk one kilometer)
- *jít o kilometr

The prepositional phrase $o+4$ is thus assigned a separate functor, namely DIFF, if it expresses a difference (the EXT functor is not used).

Borders with arguments. One of the issues related to the DIFF modifications with verbs of change is also their behavior w.r.t. valency. It has turned out that this type of modification $(o+4)$ is not limited to a certain group of verbs (which is a necessary condition for a modification to be an argument; see Section 6.2.1.1, "Criteria for distinguishing between inner participants (arguments) and free modifications (adjuncts)"). Modifications in the form $o+4$ are only considered arguments (see Section 7.2, "Argument functors") if the difference meaning is weaker and the interpretation is closer to that of result (the EFF functor). Cf.:

- Rozšírili firmu o velkoobchod.EFF (=They extended the company by the wholesale)

Doplnil zásoby o rýži.EFF (=He added rice to the stock)

### 7.6.5. EXT

The definition of the EXT functor
EXT (extent) is a functor for such an adjunct that expresses manner by specifying extent or intensity of the event or a circumstance.

EXT modifications answer questions like: "how much/many?" or "to what extent?".
Subfunctors. The EXT functor is further specified by subfunctors. See Section 7.13.1.7, "Subfunctory with the EXT functor".

EXT modifications can modify verbs (e.g.: Otevřel dveře dokořán.EXT (=He opened the door wide)), adjectives (e.g.: cele.EXT oddaný (=fully devoted)), adverbs (e.g.: velmi.EXT opatrně (=very cautiously)), but also nouns (e.g.: V nádobě je asi.EXT litr. (=There is approximately one litre (of water) in the container)).

EXT modifications can also modify prepositions (e.g: zcela.EXT pod stolem (=completely under the table)). See Section 8.17.2, "Closer specification of prepositions".

Valency. EXT modifications are obligatory with a number of verbs, especially those with the meaning of buying or selling; e.g.: platit (=pay) (platil mu $\underline{1000 . E X T ~ z a ~ s c h r a ́ n k u ~(=H e ~ p a i d ~ h i m ~} 1000$ for the postbox)), vycházet (=here: cost) (pobyt vychází na 10000 Kč.EXT (=the stay costs 10000 Kc)), činit (=make) (poplatek činí 30 Kč.EXT (=the fee is (makes) 30 Kc )), but also with other verbs, which are used for expressing quantity; e.g. vážit (=weigh) (syn váží $57 \mathrm{~kg} . \mathrm{EXT}$ (=their son weighs 57 kg )), měřit (=measure) (stromek měřil přes dva metry.EXT ( $=$ the tree was over two meters tall)), zabirat (=take up) (prodej zabirá polovinu.EXT trhu (=the selling takes up one half of the market)).

Forms. The basic forms of the EXT modification are:

- prepositional phrase.

The most common forms:

| do +2 | do posledniho mista (=to the last seat); do krve (=lit. to blood; apprx. black and blue); do sytosti (=lit. to repleteness); do krajnosti (=to extremes); do určité miry (=to a certain extent); do tři tisic korun (=up to three thousand crowns) |
| :---: | :---: |
| k+3 | zmučená k nepoznání (=tortured beyond recognition) |
| kolem+2 | Cena pohybuje kolem 80 dolarů. (=The price is about 80 dollars) |
| na+4 | Zaplatil na halǐr. (=He paid exactly; lit. to heller) |
| nad+4 | nad jiné milý člověk ( =an extremely nice person, lit. over others nice person) |
| okolo+2 | okolo dvou set (=around two hundred) |
| po+4 | zamilovat se po uši (=be head over heels in love; lit. fall_in_love REFL up_to ears) |
| po+6 | Obyvatelstvo proudi po tisicich. (=The population moves in thousands) |
| pod+4 | pod obraz (=(to be) really drunk; lit. below picture); pod psa (=really bad; lit. below dog); pod deset procent (=less than ten per cent) |
| přes+4 | Cesta je dlouhá přes dvacet kilometrů. (=The journey is over 20 km long); Váži přes dvě kila. (=It weighs over/more than two kilos) |
| v+6 | v malém měř̌itku (=on a small scale); ve výši čtyř miliónů (=to the extent of four million) |
| z+2 | $z$ velké části (=for the most part); Ze dvou tretin už je to dokončeno. (=Two thirds of it are already done) |
| za+4 | Koupil to za padesát korun. (=He bought it for fifty crowns) |

- noun in a non-prepositional case form.

The most common forms:
accusative Náklady na palivo v jejich podniku činily v roce 1989 témér miliardu korun. (=Fuel costs in their factory were almost one billion in 1989)

## - adverbial expressions.

Examples:
Utkání se přiliš.EXT nevyvedlo. (=The match wasn't very good) Fig. 7.36
$V$ nádobě je asi.EXT litr. (=The container contains approximately one litre)
$v$ hodnotě celkem.EXT třiceti tisic (=worth of thirty thousand altogether)
Byl jí cele.EXT oddán. (=He was fully devoted to her)
až.EXT sto diamantů (=up to one hundred diamonds)
bezmála.EXT dvacet let (=almost twenty years)
Se zpožděním částečně.EXT počitají. (They are partly prepared for a delay)
Je daleko.EXT lepší než já. (=He is far better than me)
Dnes je docela.EXT hezky. (=The weather is quite nice today)
Je tím dost.EXT znechucený. (=He is rather disgusted)
Jsem velmi.EXT unavený. (=I'm very tired)

Hodně.EXT prší. (=It is raining a lot)
Jak.EXT dlouho to ještě potrvá? (=How long is it going to take?)

Agreeing form of an adjective. With event nouns (ending with -ní or $t i^{\prime}$; see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events"), the EXT modification can also be expressed by an agreeing adjective form.

Examples:
částečné.EXT omezení (=partial limitation)
mirné.EXT zlepšení podminek (=slight improvement)
velké.EXT snižení daňového zatižení (=big reduction)
výrazné.EXT poškození klienta (=a considerable disservice)
značné.EXT omezeni těžby (=considerable reduction)
!!! The EXT functor is rather problematic. It comprises a wide range of meanings, from "how much?", "to what extent?" to "how many?" (expressing the number of things). Cf.:

- Jsem velmi.EXT unavený. (=I'm very tired)
- Váží pět kilo.EXT (=It weighs five kg)

The individual meanings of the EXT functor are not always separate and independent but they rather combine with meanings of other functors. This can be understood in terms of a special feature: an attribute or subfunctor. Cf.:

- IQ 90.RSTR
- IQ nad 90.EXT (=IQ over 90)

IQ přes 90.EXT (=IQ over 90)
IQ kolem 90.EXT (=IQ around 90)
IQ pod 90.EXT (=IQ below 90)

- zabirá velkou plochu. PAT (=it takes up a large area)
- zabirá 50 procent.EXT plochy (=it takes up 50 per cent of the area)
zabirá přes 50 procent.EXT plochy (=it takes up over 50 per cent of the area)
zabirá pod 50 procent.EXT plochy (=it takes up less than 50 per cent of the area)
The solution is thus inconsistent and calls for revision. In the future it will be necessary to distinguish those modifications that really express extent from those with which the extent is just an additional feature. Further, it is necessary to consider whether the modifications of the type "how much?" with verbs like platit (=pay), vážit (=weigh), činit (=be/cost) should be assigned the EXT functor.

Figure 7.36. The EXT functor


Utkání se přiliš nevyvedlo. (=lit. Match REFL much not_was_good)

### 7.6.5.1. Borderline cases with the EXT functor

Border with the DIFF functor. Semantically, the EXT functor is very close to the DIFF functor (see Section 7.6.4, "DIFF"). See Section 7.6.4.1, "Borderline cases with the DIFF functor".

Borders with arguments. The EXT functor is assigned also to modifications with the meaning "how much?" following verbs of buying and selling but also other verbs expressing quantity. With a number of verbs, such a modification is obligatory; it is, however, distinguished from a simple Patient (see Section 7.2, "Argument functors"). Cf.:

- Váží pět kilo.EXT (=It weighs five kg)
- Vází mouku. PAT (=He is weighing flour)


### 7.6.6. MANN

Definition of the MANN functor

MANN (manner) is a functor for such an adjunct that expresses manner by specifying an evaluating charateristic of the event or a property.

MANN modifications express manner directly. It is necessary to distinguish these modifications from those expressing manner by comparison, by specifying a consequence, extent, exception, means etc. The MANN functor is assigned to such adverbial modifications that cannot be assigned a more specific functor.

MANN modifications can modify verbs (=e.g.: tiše.MANN řici (=to say sth quietly)), adjectives (e.g.: nekřestänsky.MANN drahé (=outrageously expensive)), adverbs (e.g.: nápadně.MANN často (=strikingly often), but also nouns (e.g.: úprava prostředí na míru.MANN (=lit. modification (of) environment to measure)).

Forms. The basic forms of the MANN modification are:

## - adverbial expressions.

Examples:
Pracuje pomalu.MANN (=He is working slowly)
Jde zlehka.MANN (=He's walking lightly)
čerstvé.MANN natřeno (=newly painted)
pěkně.MANN opálený (=lit. nicely tanned)
Nikdy se jich nevzdáme, " prohlašují sebevědomě.MANN (=...they say confidently)
Prudce.MANN se zvýšily mezibankovní úrokové míry. (=...rose steeply)
Jak.MANN to se mnou mluviš? (=lit. How EMPH with me (you) speak?)
Náš vztah k Německu byl tak.MANN nadlouho určen. (=Our relationship to Germany was given by this for a long time)

Nějak.MANN to uděláme. (=We'll do it somehow)

## - prepositional phrase.

The most common forms:

| do +2 | Boby Brno se chce umistit do pátého mista. (=Boby Brno wants to be at most the fifth; lit. to_be placed to fifth position) |
| :---: | :---: |
| formou+2 | Odpověděla formou oficiálniho dopisu. (=She answered in the form of an official letter) |
| na+4 | Turnaj se hrál na čtyři kola. (=The tournament had four rounds; lit. played at four rounds); zavřit na klič (=to lock; lit. close with key) |
| na+6 | Nabidl diktátorovi suverenitu státu takřikajíc na podnose. (=lit. (He) offered dictator sovereignty (of) state so_to_speak on tray); Kluk odpočívá nehnutě na jedné noze. (=The boy is standing on one foot) |
| o+4 | běžet o závod (=apprx. run for your life) |
| o+6 | Hráči si vychutnali radost $z$ vitézství o samotě. (=The players enjoyed their victory by themselves) |
| od+2 | ohodnotit možnosti od oka (=to evaluate the possibilities at a rough guess); Pětkrát jsem začinal od piky. (=Five times I was beginning from scratch) |
| po+6 | jít po špičkách (=walk on one's toes); Do svého dobrodružství se vrhá po hlavě. (=He's going into it head first); Po dobrém to nejde. (=It can't be solved amicably) |
| pod+7 | prodat pod rukama (=to sell secretly); zakázat pod trestem smrti (=to ban sth under pain of death) |
| s+7 | zvládl to s velkým umem (=he managed to do it skilfully) |
| v+6 | žit v chudobě (=to live in poverty); Soused v tichosti vyčkal mezi větvemi. (=He waited quietly) |
| ve formě+2 | přijetí volebniho programu ve formě vládniho prohlášení (=accepting the programme in the form of a government declaration) |
| v podobě+2 | Dochovala se v podobě překrásného iluminovaného rukopisu. (=It was preserved in the form of a beautiful manuscript) |
| z+2 | pracovat ze všech sil (=to work flat out); Proč o tom hovořím tak ze široka? (=Why am I talking about it in such a detail?) |


| $\mathrm{za}+4$ | vést za ručičku (=lead by the hand) |
| :--- | :--- |

Example:
Odpověděla formou oficiálniho dopisu.MANN (=She answered in the form of an oficial letter) Fig. 7.37

## - noun in a non-prepositional case form.

The most common forms:

| accusative | Armáda jde krok za krokem k lepšimu. (=The army is improving step by step) |
| :--- | :--- |
| instrumental | To se dá vylézt alpským stylem. (=One can climb it in the alpine style); Co ovlivňuje <br> rozhodujícím zpùsobem tuto spokojenost? (=What influences their satisfaction cru- <br> cially?) |

- dependent clause.

The most common forms:

| jak | Jednal, jak mu ukládá zákon. (=He acted as the law says) |
| :--- | :--- |
| tak - aby | Choval jsem se tak, abych se tam nedostal. (=I behaved in such a way so that I didn't <br> get there) |
| tak - že | Je možné postupovat tak, že se bude snižovat horní sazba při zachováni dolní sazby. <br> (=It is possible to follow such a procedure that the upper rate is going down while...) |
| tak -jak | Rozdělili si odpovědnost a role tak, jak je postupně život přinášel. (=They were sharing <br> their responsibility and roles as life was bringing them) |

Agreeing form of an adjective. With event nouns (ending with -ní or $t i$; see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events") the MANN modification can also be expressed by an agreeing adjective form.

Examples:
veřejné.MANN označení (=public name)
těžké.MANN zlehčování (=serious disparagement)
zdárné.MANN řešení (=successful solution)
postupné.MANN opotřebeni (=gradual wear and tear)
elektrické.MANN ovládání (=electric control)
rychlé.MANN ziskání kapitálu (=lit. quick getting (of) capital)
lehkovážné.MANN koketování (=frivolous flirting)

Figure 7.37. The MANN functor


Odpověděla formou oficiálniho dopisu. (=lit. (She) answered in_the_form (of) official letter)

### 7.6.6.1. Borderline cases with the MANN functor

Borders with other functors for expressing manner and its specific variants. It is often hard to determine which of the functors from the manner family is to be used. The rule is that the specific functors are to be preferred over the general MANN functor. To determine the right functor, the following questions and paraphrases are used:

- MANN: "in what way?".
- RESL: "with what effect/result?", "in such a way that...".
- EXT: "how much/many?", "to what extent?".
- REG: "in relation to what?", "concerning", "with respect to", "from the point of view of".
- ACMP: "with/without what?".
- MEANS: "by means of what?", "with the help of what?".
- CPR: "similar to what?", "different from what?", "in comparison to what?".
- CRIT: "according to what?"
- RESTR: "with the exception of what?", "who/what exceptionally as well?".

Apart from the homonymous prepositional phrases, also adverbial expressions are very problematic w.r.t. the choice of the right functor. Cf .:

- Počinal si hazardérsky. (=lit. (He) acted REFL hazardously)
$=$ He acted like a daredevil.

Hazardérsky expresses comparison (CPR).

- Udělali to společně. (=They did it together)

Společně expresses accompaniment (ACMP).

- Chová se bezohledně. (=He behaves thoughtlessly)
$=$ He behaves without consideration for other people.
Bezohledně refers to an accompanying circumstance (ACMP).
- Seřad' jména abecedně. (=Order the names in alphabetical order; lit. aphabetically)
$=$ Order the names in alphabetical order; lit. according to alphabet
Abecedně has the meaning of a criterion (CRIT).
- Napiš dopis čitelně. (=Write the letter so that it is readable; lit. readably)
$=$ Write the letter so that it is readable .
Čitelně expresses the result (RESL).
!!! In the data, adverbial (and adjectival) expressions are mostly assigned the MANN functor even though they could often get a more specific functor (and this does not concern only functors from the manner family); e.g.:
- Lyžuje jen rekreačně. (=He only goes skiing for pleasure; lit. recreationally)

Rekreačně expresses purpose (AIM).
See also Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events".

Border with the ATT functor. For the border with the ATT functor see Section 7.7.1.1, "Borderline cases with the ATT functor".

### 7.6.7. MEANS

Definition of the MEANS functor
MEANS (means) is a functor for such an adjunct that expresses manner by specifying a means or instrument used for carrying out the event.

MEANS modifications refer to:

- a tool, instrument.

Examples:
Napsal to na počítačíi.MEANS (=He wrote it on the computer)
Na šest metrů dlouhém žebříku.MEANS vlezl do zámku nezajištěným oknem. (=He broke into the castle using a six meters long ladder)

Není zjistitelný detekčními přistroji.MEANS (=It can't be detected by detectors)
Firma provádí pod silnicí průraz pomocí vody.MEANS (=The company is doing the penetration with water)

- the mediator.

Examples:
Od 25. záříl budou přepravovány těžké kamiony na trase Drážd'any - Lovosice po železnici.MEANS (=...the trucks are going to be transported by rail)

Nájemce může podle svých požadavků dostat nabidku i po telefonu.MEANS (=... get the offer by phone)

Pošli to po Janě.MEANS (=Send it by Jana)
Ti, kteří si výpisy nevyzvedli osobně, je obdrží prostřednictvím pošty.MEANS (=...will get it by mail)

- a transport means.

Examples:
Marcela Sadilová jede na kajaku.MEANS (=MS is paddling in a kayak)
Ten na pražské letiště přicestoval letadlem.MEANS (=He came by plane)

MEANS modifications modify verbs and their derivatives (e.g.: uhradit dluh směnkou.MEANS (=to pay a debt with a bill), instituce zmocněná zákonem.MEANS (=an institution authorized by the law), měreni pomoci parity.MEANS (=measuring with the help of parity)).

Forms. The basic forms of the MEANS modification are:

## - noun in a non-prepositional case.

The most common forms:

| instrumental | Výstražnými výstřely do vzduchu zahnala včera ruská pobřežní hlídka japonské ry- <br> bárské lodě. (=The Russian coastguard chased away the Japanese trawlers by <br> shooting warning shots) |
| :--- | :--- |

## - prepositional phrase.

The most common forms:

| cestou+2 | vytvǒrení pracovních přiležitostí cestou zvýšeného vývozu (=creating job op- <br> portunities by increasing the export) |
| :--- | :--- |
| do+2 | Měli bychom tuto knihu vzít do ruky a těšit se z ní. (=We should take the book <br> in our hands and enjoy it) |
| na+4 | Laso chtél na fakturu nakoupit elektroniku. (=Laso wanted to buy electronics <br> without paying cash; lit. on invoice) |
| na+6 | Zloděj na bicyklu odjel. (=The thief left on the bicycle) |
| $\mathrm{o}+4$ | Někdo mlátil jeho hlavou o schody. (=Somebody smashed his head against <br> the stairs); Lidé si neradi sami pinkají o zed'. (=People are not interested in <br> playing against the wall) |
| o+6 | Chodil o berlích. (=He walks on crutches) |
| po+6 | Po provaze se spustil do dolní části kostela. (=He got down on a rope) |
| pomocí+2 | Je jim nabidnuta pomoci německých sociálnich pracovniků forma alternativní <br> výchovy. (=... with the help of German social workers) |


| prostřednictvím+2 | Drobný investor může prodat své akcie prostřednictvím maklérské firmy na <br> burze. (=... sell the shares through a broking house) |
| :--- | :--- |
| přes+2 | Izraelská firma buduje systém bezporuchového spojení přes satelit. (=...con- <br> nection by satellite) |
| $\mathrm{s}+7$ | Kdysi jsem hrál s hlinikovou raketou. (=I used to play with an aluminium <br> racket once) |
| s pomocí+2 | Slabozrací věť̌inou fungují normálně s pomocí silných brýlí. (=...with the <br> help of strong glasses) |
| skrz+4 | Čeho lze skrze OSN dosáhnout? (=What can be reached through UNO?) |
| $\mathrm{v}+6$ | Milionové částky přinesou sebou v kufriku. (=They'll bring the money in a <br> briefcase); výdělek v dolarech (=salary in dollars) |
| $\mathrm{z}+2$ | Mzdy učitelů jsou hrazeny z federálniho rozpočtu. (=Teachers' wages are paid <br> from the federal budget) |
| za+4 | Zlato se prodávalo za dolary. (=The gold was sold for dollars) |
| za pomoci+2 | Na pulty knihkupců se dostal za pomoci hrstky přátel. (=... with the help of a <br> couple of friends) |

Example:
Zavazuje si je pomocí exkluzivnich smluv.MEANS (=He binds them by means of exclusive contracts) Fig. 7.38

- adverbial expressions.

Examples:
Časopisecky.MEANS jsem povidky představil již v roce 1965. (=I introduced the stories in magazines already in 1965)

Společnost smluvně.MEANS zajištuje provozování loterie. (=The company is providing the lottery by contract)

Zpravodaj MF DNES se včera telefonicky.MEANS spojil s M. Paloušem. (=...reached MP by telephone)

Pokud by se jezdilo nahoru elektricky.MEANS, odpadne produkce exhalací a snizí se hluk. (=If there was a transport making use of electricity...)

Dependent clause. MEANS modifications can be expressed by a dependent clause only with the help of a supporting expression, e.g.:

Některé podniky se snaží omezit zadlužení tím, že nabízejí.MEANS věřitelům kapitalizaci dluhů. (=Some companies are trying to reduce their debts by offering...; lit. by_that that (they) are_offering..)

Agreeing form of an adjective. With event nouns (ending with -ní or $t i$; see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events"), the MEANS modification can also be expressed by an agreeing adjective form.

Example:
dělostřelecké.MEANS ostřelování (=artillery bombarding)
násilné.MEANS svržení režimu (=violent overthrow)
dolarové.MEANS krytí (=lit. dollar coverage)

Figure 7.38. The MEANS functor


Zavazuje sije pomocí exkluzivních smluv. (=lit. (He) binds REFL them by_means_of exclusive contracts)

### 7.6.7.1. Borderline cases with the MEANS functor

Border with the MANN functor. The MEANS functor is very close to the most general functor for expressing manner: the MANN functor (see Section 7.6.6, "MANN"). See Section 7.6.6.1, "Borderline cases with the MANN functor".

### 7.6.8. REG

Definition of the REG functor
REG (regard) is a functor for such an adjunct that expresses manner by specifying with respect to what something holds (is to be interpreted).

REG modifications express with regard to what the event or property hold, they specify the limitations. The REG functor can be identified with the help of paraphrases like: "co se týká (=concerning)", "vzhledem k čemu (=with respect to)", "z hlediska čeho (=from the point of view of)". REG modifications express both a positive relation (vzhledem $k$ (=with regard to), s ohledem $n a$ ) as well as a negative relation (bez ohledu na (=regardless of)) to something.
!!! The REG functor needs to be further classified by subfunctors, which have not been introduced yet.
REG modifications can modify verbs (e.g.: Zevnějškem.REG se sobě úplně podobali. (=As to their external experience, they were very similar to each other)), adjectives (e.g.: rozlohou.REG malé Slovensko (=small by area)) as well as nouns (e.g.: specifikace izolačnich materiálů z hlediska hořlavosti.REG (=specification of the materials with respect to their flammability), including non-derived nouns (Marie, povoláním.REG učitelka (=Marie, a teacher by profession)).

Forms. The basic forms of the REG modification are:

## - prepositional phrase.

The most common forms:

| bez ohledu na+2 | Bez ohledu na věk jsou pořád nejlepší. (=Regardless of their age, they are still the best) |
| :---: | :---: |
| co do +2 | Co do nákladů jsme na tom dobře. (=As to the costs, we are fine) |
| k+3 | Kurs zlotého k dolaru byl v červnu přibližně 17000 : 1. (=...zloty to dollar...) |
| kolem+2 | Premiér prý ukončil dohady kolem firmy Elbit. (=...speculations around Elbit) |
| na+4 | úrodný na ovoce (=fruitful; lit. fertile as_to fruit), na počet málo (=small in numbers), štědrý na sliby (=generous with promises) |
| na+6 | prospívat na duchu (=do good to one's mind/spirit); ochrnout na všech údech (=all limbs become paralyzed; lit. at all limbs) |
| na téma +2 | soutěž na téma Rodina ( $=$ a competition with the topic Family) |
| nezávisle na+6 | Systém musí umožňovat využití všech součástí hardware a software nezávisle na umistění kteréhokoli pracoviště. (=...independently of the location) |
| ohledně +2 | Reagoval tak na dohady ohledně jejich tvorby. (=This was his reaction regarding their work) |
| po stránce+2 | Splnila svoje cíle i po stránce získávání detailnich informací o současných problémech téchto zemí. (=It fulfilled its purpose also from the point of view of getting detailed information...) |
| pro+4 | pro koně má oči (=he has got eyes for horses); Válka v Perském zálivu je pro Albrightovou trochu citlivé misto. (=...is a sensitive spot for Albright) |
| proti+3 | Pojištovna pojistí můj obchod proti vloupání. (=The insurance company will insure the shop against robbery) |
| před+7 | Mistrem světa se stalo Švýcarsko před Norskem. (=The Swiss became world champions, beating Norwegians; lit. ahead_of Norway) |
| při ${ }^{\text {+ }}$ 6 | Při rychlosti, v jaké vylétl z úzké okresky, to na vůbec není špatná reklama bezpečnosti vozů. (=Considering the speed, it is not bad at all...) |
| s+7 | Spř̌rodou neni jaksi všechno v pořádku. (=Something is wrong with the nature) |
| s ohledem na+4 | Jedná s ohledem na netolerantní většinu. (=She is acting taking into account the intolerant majority) |
| se zř̌etelem k+3 | Stanoviště je třeba upravit se zřetelem k množství účastnỉků. (=It is necessary to prepare the spot with regard to the number of participants) |
| u+2 | U celního zákona však s hlasováním po jménech nikdo nepřišel. (=With this law, nobody came with voting...) |
| $\mathrm{v}+6$ | Zlatá cihla připadne světovému rekordmanu v dálce z USA. (=...the world champion in the long jump) |
| ve věci+2 | Byl obžalován ve věci trestného činu hanobení rasy. (=He was accused of the crime...) |
| ve vztahu k+3 | Ve vztahu k majetku se chovají jinak. (=They behave differently with respect to their property) |
| v otázce+2 | nedorozumění v otázce zakázaných přestupů do některých klubů (=misunderstanding in the question of illegal transfers...) |
| v případě +2 | Potvrdil nevinu i v případě jeho bratra. (=He confirmed also his brother's innocence; lit. also in the_case_of his brother) |
| v rámci+2 | V rámci tří kontraktů zajistí modernizaci sití. (=within the bounds of three contracts...) |
| v souvislosti ${ }^{+} 7$ | V souvislosti s kampaní zaznamenali nárůst zájmu. (=In the connection to the campaign...) |


| vůči+ +3 | Mzdy rostou neúměrně vůči tomu, co ekonomika a jednotlivé podniky skutečně <br> produkují. ( $=$ The wages rise disproportionately to what the individual companies <br> really produce) |
| :--- | :--- |
| vzhledem $\mathrm{k}+3$ | Vzhledem ke spektru voličů nelze očekávat zázraky. (=Considering the voters' <br> spectrum, it is not possible to expect miracles) |
| $\mathrm{za}+4$ | Ceny pštrosiho masa se pohybují okolo 500 korun za kilogram. (=Ostrich meat <br> is around 500 crowns for a kilogram) |
| $\mathrm{z} \mathrm{hlediska+2}$ | Z hlediska historie je to pochopitelné. (=From the point of view of history, it is <br> understandable) |

- noun in a non-prepositional case form.

The most common forms:

| the instrumental | Obránce Maléř je služebně i věkem nejstaršim hráčem. (M. is the oldest player <br> - both professionally and with respect to his age) |
| :--- | :--- |
| the genitive | historik uméní (=historian of art) |

Example:
rozlohou.REG malé Slovensko (=Slovakia, small by area) Fig. 7.39

## - adverbial expressions.

Examples:
Letošní rok je vnitropoliticky.REG mimorádně významný. (=This year is very important with respect to domestic politics)

Sociální demokraté jsou mi názorově.REG nejbližsí. (=Social democrats are closest to my worldview)
Jeho humor je smyslově.REG názorný. (=His sense of humour is sensually very vivid)
Tato péče je ekonomicky.REG náročná. (=This care is economically demanding)
školy pro sluchově.REG postižené (=schools for people with a hearing defect)
historicky.REG třetí oficiální česko-slovenský duel (=the third fight in history...)
sociálně.REG slabši vrstva obyvatelstva (=underprivileged citizens; lit. socially weaker)

## - dependent clause.

The most common forms:

| "co se týče" | Co se týče odhadu budouciho vývoje, ten je již nějakou dobu přesné usměrněn <br> ekonomickými faktory. (=As for the future development...) |
| :--- | :--- |
| "pokud jde o"" | Pokud jde o změnu konstrukce životniho minima, nebyl přijat žádný závěr. ( $=A s$ <br> far as the subsistence level is concerned...) |

Agreeing form of an adjective. With event nouns (ending with -ní or $t i$; see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events") the REG modification can also be expressed by an agreeing adjective form.

Examples:
dědické.REG řizení (=lit. heirship proceedings)
důchodové.REG zabezpečeni (=pension scheme)
penzijní.REG připojištění (=a contributory pension scheme)
trestní.REG stíhání (=criminal prosecution)
zálohové.REG zdanění (=lit. advance taxation)
Figure 7.39. The REG functor

rozlohou malé Slovensko (=lit. by_area small Slovakia)

### 7.6.8.1. Borderline cases with the REG functor

Border with the MANN functor. The REG functor is very close to the most general functor for expressing manner: the MANN functor (see Section 7.6.6, "MANN"). See Section 7.6.6.1, "Borderline cases with the MANN functor".

Borders with other functors. A number of homonymous expressions ( $p r \check{i}+6, s+7, n a+4, z a+4$ ), used for expressing the REG functor, means a lot of borderline cases. The choice of the functor is a decision of the annotator. Cf.:

- the border with the EXT functor:
- Sbor je do počtu.REG slabý. (=The choir is weak, as to the number of people)
- Sbor je do určité miry.EXT slabý. (=The choir is weak, to a certain degree)
- the border with the BEN functor:
- ukazatel exportu na jednoho obyvatele.REG (=the export index for one person)
- přidavek na dítě.BEN (=children's allowance; lit. benefit for children)
- Válka je pro Albrightovou.REG citlivé misto. (=The war is a sensitive spot for Albright)
- šance pro movité nájemniky.BEN (=a chance for rich tenants)

For more on the border with the BEN functor see Section 7.9.1.1, "Borderline cases with the BEN functor".

- the border with the MEANS functor:
- prospivat na duchu.REG (=do good to one's mind/spirit)
- objasnit na přikladu.MEANS (=explain on an example)
- the border with the CPR functor:
- Podobně je tomu $\underline{s}$ oběma muži.REG (=It is similar with both men)
- sléty.CPR přibývají zkušenosti (=The experience grows with the years)
- the border with the COND functor:
- V případě gymnázií. REG bych přinejmenším na dvě první mista dal státní školy. (=As for the secondary grammar schools, I would mention...)
- Vpřipadě nemoci.COND zůstan̆ doma. (=In case of illness, stay at home)
- Nevyužité možnosti má televize zejména pří regionálním vysilání.REG (=The possibilities are not used enough especially with the local broadcasting)
- Přizměně.COND kompetencí mohou v lesich převážit hospodářské aktivity. (=If the competences change...)
!!! It has turned out that the choice of the functor is often very difficult. In the future, the boundaries between individual functors will have to be specified more clearly.


### 7.6.9. RESL

Definition of the RESL functor
RESL (result) is a functor for such an adjunct that expresses manner by specifying the result of the event. The meaning is "in such a way that then..." The RESL functor expresses that at the end of the event, the state referred to by the modification with the RESL functor is achieved.

The RESL functor expresses that at the end of the event, the state referred to by the modification with the RESL functor is achieved.

RESL modifications modify verbs (e.g.: Obarvil vajíčka na zeleno.RESL (=He painted the eggs green)), or adjectives (e.g.: opálená do hněda.RESL (=lit. tanned to brown)). If the modification is expressed by a dependent clause, it modifies an adverbial expression (Mám ruce zmrzlé tak, že je. RESL nenatáhnu. ( $=$ My hands are so numb with cold that I can't stretch them)).

Forms. The basic forms of the RESL modification are:

## - prepositional phrase.

The most common forms:
do+2 maso upečené do zlatova (=roasted until golden brown)

$$
\begin{array}{|l|l}
\hline \text { na }+4 & \text { prelakovanými na červeno (=painted red) }
\end{array}
$$

- adverbial expressions.

Examples:
Skončilo to skandálně.RESL (=It ended scandalously) Fig. 7.40
Můj agent s vedenim stále jedná, ale zatím bezvýsledně.RESL (=My agent is negotiating with the management but without any results so far)

Markéta před prázdninami úspěšně.RESL prošla talentovými zkouškami. (=M. passed the exams successfully)

## - dependent clause

The most common forms:

| aby | Autor se snažil napsat ji tak, aby si ji mohl přečist každý. (=The author is trying to write <br> it in such a way that anybody can read it) |
| :--- | :--- |
| až | Budou clít a clit, až se hory budou zelenat. (=They are going to clear the things through <br> customs, lit. until REFL mountains will turn_green) |
| že | Dvěma ukradenými auty zaútočili na vůz a bočnimi nárazy jej vytlačili ze silnice tak, že <br> havaroval v přikopu. (=...they pushed the car in such a way that it ended up in a ditch) |
| než aby | Je přiliš̌ zodpovědný, než aby spekuloval. (=He is too responsible to speculate) |

The annotation rules for consecutive clauses are described in Section 8.7, "Constructions with a dependent consecutive clause".

Agreeing form of an adjective. With event nouns (ending with -ní or $t i$; see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events") the RESL modification can also be expressed by an agreeing adjective form.

Examples:
neúspěšné.RESL vyrovnáni s věriteli (=lit. unsuccessful settlement with creditors)
Současně je to den definitivniho.RESL usmírení (=definitive reconciliation)
deficitní.RESL hospodaření (=deficit economy)

Figure 7.40. The RESL functor


Skončilo to skandálně. (=lit. Ended it scandalously)

### 7.6.9.1. Borderline cases with the RESL functor

Border with the MANN functor. The RESL functor is very close to the most general functor for expressing manner: the MANN functor (see Section 7.6.6, "MANN"). See Section 7.6.6.1, "Borderline cases with the MANN functor".

### 7.6.10. RESTR

Definition of the RESTR functor
RESTR (restriction) is a functor for such an adjunct that expresses manner by specifying an exception/restriction.

Modifications with the functor RESTR refer to:

- an event or entity for which the governing event does not apply (i.e. an exception; the meaning of restriction).

Example:
Kromě Pavla nepřišel nikdo. (=Except for Pavel, nobody came)

- an event or entity for which the governing event does - exceptionally - apply (the meaning of exceptional conjoining).

Example:
Kromě Pavla nepřišel ještě Mirek. (=Apart from Pavel, also Mirek didn't come)

The two types are distinguished in the annotation. The way in which the constructions with the meaning of restriction and exceptional conjoining are represented is described in Section 8.6, "Constructions signifying "restriction" and "exceptional conjoining"".

Forms. The basic forms of RESTR modifications are:

- prepositional phrase.

The most common forms:

| až na+4 | Veřejnost není zlá až na některé jedince. (=People are not bad, except for certain <br> individuals) |
| :--- | :--- |
| kromě | Kromě dosavadních úkolů bude úřad vydávat licence pro podnikání na dráze. <br> (=Apart from their current duties, the offfice will be issuing...) |
| mimo | Spořitelna požaduje mimo vyplněné žádosti o úvěr také doklady o zastavovaném <br> objektu. ( $=$ The bank requires - apart from the filled in application forms - also the <br> documents...) |
| s výjimkou+2 | V té době měly všechny banky s výjimkou České spořitelny málo finančnich zdrojů. <br> (=At that time, all banks except for CS had insufficient resources) |
| vedle | Vedle toho, že bude dosaženo snížení emisí podstatně levněji, bude překročeno i <br> plánované sniženi emisí. (=Apart from the fact, that the emission reduction will <br> be much cheaper, also the plans will be exceeded) |
| vyjma+2 | Firma produkuje na padesát druhů párků, klobásek, salámů, vyjma trvanlivých. <br> (=The company produces fifty kinds of sausages and salamis, except for the long- <br> life ones) |

## - dependent clause.

The most common forms:

| než | S tím nelze než souhlasit. (=One can only agree with that) |
| :--- | :--- |
| nežli | Nezbývá mi jiný prostředek než použít násilí. (=All that is left to me is the use of force.). |
| leda/že | MF DNES neotiskne mobilizační vyhlášku proti invazi Mart’anů, leda se jí bude hrozit <br> biřicem. (=MF DNES is not going to publish the directive concerning the mobilization <br> against the Martial invasion, unless threatened) |

Figure 7.41. The RESTR functor


Spořitelna požaduje mimo vyplněné žádosti také potvrzení o přijmu. (=lit. Spořitelna (=bank) requires apart_from filled_in application_forms also confirmation on income)

### 7.6.10.1. Borderline cases with the RESTR functor

Border with the CPR functor. Constructions with the meaning of restriction (RESTR) border in some cases with comparative constructions (CPR; see Section 7.6.2, "CPR"). See also Section 8.6.1.2, "Constructions signifying "restriction" attached by connectives".

### 7.7. Functors for rhematizers, sentence, linking and modal adverbial expressions

Functors for rhematizers, sentence, linking and modal adverbial expressions are functors of atomic nodes (nodetype=atom; see Section 3.2, "Atomic nodes") which represent free modifications and their function in the sentence is to rhematize, to link the sentence to its preceding context or to express various modal meanings and attitude.

A modification with the functors for rhematizers, sentence, linking and modal adverbial expressions does not function as a modification modifying other modifications within the sentence. The edge between such a node and its mother node (governing node) does not express dependency (for details see also Section 6.1, "Dependency").

List of the functors for rhematizers, sentence, linking and modal adverbial expressions

- ATT
- INTF
- MOD
- PREC
- RHEM


### 7.7.1. ATT

Definition of the ATT functor
The ATT functor (attitude) is a functor for such an atomic node that represents an expression of speaker's evaluating or emotional attitude to the utterance contents (or its part).

Unlike other modifications, the modifications with the ATT functor characterize the communication situation, they signal communication functions of the utterance and they introduce pragmatic meanings into the utterance. They express speaker's attitudes like amazement, surprise, satisfaction, concern, indifference, regret etc.

NB! The functor ATT is also assigned to modifications that further specify the modal meanings of modal predicates. For more details see also Section 6.9.1.1.4, "Closer specification of modal meanings".

NB! For details on the syntactic nature of the ATT modifications see Section 6.11.1.3, "The semantic scope of modifications with the functors MOD and ATT".

Forms. Modifications with the ATT functor typically have a fixed lexical content, particularly in prepositional phrases. The basic forms of ATT modifications are:

## - adverbial and particle expressions.

Examples:
Je to bohudiky.ATT za námi (=lit. Is it thank_God over -.) Fig. 7.42
Díla s tématem synonymie jsou dnes již bohužel.ATT nedostupná. (=lit. Works on - synonymy are today any_more unfortunately not_available.)

Bude-li vláda vystřidána, je to samozřejmě.ATT pro republiku významná událost. (=lit. Are-if (the) government replaced is it of_course for (the) republic (an) important event.)

Vypovědět ji prostě.ATT nelze. (=lit. To_expel her simply is_impossible.)
To je fakticky.ATT zlé. (=lit. That is really bad.)
Je to náhodou.ATT hezké. (=lit. Is it actually nice.)
Nevím ovšem.ATT, s čím přijedou Čínanky. (=lit. (I) do_not_know nevertheless with what will_come_up (the) Chinese.)

Pravda.ATT , pak přišla první konkrétní čisla. (=lit. Truly, then came fist concrete figures.)
Jenom.ATT se opovaž. (=lit. Just you dare.)
Čiši z nich konec. ATT konců i neschopnost vlády. (=lit. (They) radiate -- after all also (the) incapability (of) (the) government.)

Copak.ATT penize, o ty by nebylo. (=lit. Well, money, -they wouldn't matter.)
NB! The cases of so-called lexicalized parenthesis are also represented as ATT modifications (see Section 6.7.2, "Lexicalized parenthesis"). Examples:

Dopadne to, doufejme.ATT dobře. (=lit. Will_work_out it hopefully well.)
To je, myslim. ATT , náš pes. (=lit. That is I think our dog.)
$\underline{\text { Vite.ATT , to je složité. (=lit. (You) know it is complicated.) }}$

## - prepositional phrase.

The most common forms:

| bez+2 | Taková je bez nadsázky Honda Prelude 3.2. (=lit. Like_that is without (any) exaggeration <br> what (the) new Honda Prelude 3.2.); bez obalu; (=lit. without cover; directly) |
| :--- | :--- |
| $\mathrm{k}+3$ | Zákaznik ke své škodě málokdy přemýšlí o vlastnostech nabizeného tovaru.(=lit. (A)cus- <br> tomer to his/her detriment hardly_ever thinks about (the) properties (of) (an) offered <br> product.); k plné spokojenosti (=lit. to his/her satisfaction) |
| po+6 | po pravdě (=truly) |
| $\mathrm{s}+7$ | To vše a mnohé jiné nás škola s radostí naučí. (=lit. All that and much more us school <br> with joy will_teach.) |
| $\mathrm{v}+6$ | Ve skutečnosti nezbyl téměř kámen na kameni. (=lit. - Actually (there) was_left hardly (a) <br> stone standing.); Oba systémy byly v podstaté totožné. (=lit. Both systems were - actually <br> identical.) |

- noun in a non-prepositional case form.

The most common forms:

instrumental | To je svým způsobem také podivuhodné (=lit. This is in_a_way also remarkable) ; |
| :--- |
| Přišla v době, kdy se shodou okolností Barák loučil. (=lit. she came -- when by co- |
| incidence Barák was_saying_goodbye.) |

- subordinating conjunction in the function of a particle .

Examples:
Když.ATT ale vy to nevidite dobře. (=lit. - But you it cannot_see right.)
Vždyť.ATT máme kapacitu stadionu 5000 mist (=lit. But is (the) capacity (of) (the) stadium 5000 seats.)

Že.ATT , vy si ze mě děláte legraci? (=lit. Don't_you, you - of me are_making fun?)

Agreeing form of an adjective. With nouns referring to events (nouns ending with -ní and $t i$; see Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events") the modifications with the ATT functor can also be expressed by an agreeing form of an adjective (only marginally).

Examples:
údajné.ATT poškozování zájmů státu (=lit. (the) alleged harm (of) interests (of) (the) state) takzvané.ATT podnikání (=lit. (the) so-called business)

Figure 7.42. The ATT functor


Je to bohudiky za námi. (=lit. Is it thank_God over -.)

### 7.7.1.1. Borderline cases with the ATT functor

Border with the MANN functor. ATT modifications can be formally close to other modifications. There is a frequent homonymy between the functors ATT and MANN. In such cases it is typical that the modification with the ATT functor (meaning: "it was simple, fair etc. that he did it") occurs clauseinitially while the modification with the MANN functor (meaning: "it was simple, fair etc. in what way he did it ") occurs after the verb. Compare:

- Prostě.ATT nepřišel.(=lit. Simply (he) did_not_come.)
- Oblékl se prostě.MANN (=lit. (He) - dressed simply.)

In ambiguous cases the modification is assigned one of the functors according to the context. Cf.:

- Prostě se oblékl a šel tam. (=lit. Simply (he) -dressed and went there.)

If the meaning is: he just dressed and went there, the node representing the adverb prostě (=simply) is assigned the ATT functor; if this adverb characterizes the way in which somebody was dressed, the node is assigned the MANN functor.

Border with the ACMP functor. Apart from the most common homonymy with the MANN functor, ATT modifications often compete with several other functors, particularly when there is also formal homonymy. This happens e.g. with the prepositions $s+7$ and $b e z+2$, which both primarily express the ACMP meaning (see Section 7.6.1, "ACMP"). The choice between the two functors (ACMP and ATT) can be in certain cases highly problematic. The problem which of the two functors is closer to the meaning of the modification according to the available context always needs careful consideration: The modification with the ATT functor has the meaning of the speaker's attitude. The speaker's interest is always present in the event. Cf.:

- Odešel skloboukem.ACMP na hlavě. (=lit. (He) left with (a) hat on (his) head.)
- Odešel s povzdechem.ACMP (=lit. (He) left with (a) sigh)
- Udělám to $\underline{s}$ radostí.ATT (=lit. (I) will_do it with pleasure)

Border with the RHEM functor. ATT modifications can border on rhematizers. For details see also Section 10.6.1.2, "Homonymy: rhematizer - modal expressions (ATT and MOD)".

### 7.7.2. INTF

Definition of the INTE functor
The INTF functor (intensification) is a functor for such an atomic node representing an expression that emphasizes particularly the modification in the subject position and that simultaneously intensifies the entire construction. The position of such an expression is parallel to the subject position (it represents the so-called "false subject").

NB! The INTF functor is also assigned to the modification functioning as an intensifying particle in the "subject" position in subjectless sentences (e.g. Ono.INTF prši. (=lit. It rains.)).

INTF modifications are represented as dependent on the verb, i.e. it depends on the same predicate as the subject and it forms a parallel to the subject.

Forms. The basic form of the INTF modification is usually the personal pronoun on (=he) or the demonstrative pronoun to (=that). These pronouns are always in their nominative form.

Examples:
To. INTF Jirka ještě spí. (=lit. EMPH Jirka still is_asleep.) Fig. 7.43
On.INTF Jirka ještě spí. (=lit. Well, Jirka still is_asleep.)
To.INTF Karel nepřišel. (=lit. That Karel did not come.)
Ono.INTF táhne. (=lit. There is_(a)_draught.)
To.INTF huči letadla. (=lit. That are_buzzing (the) planes.)
Viš, on.INTF je náš Baryk docela hodnej. (=lit. (You) know EMPH is our Baryk quite good.)
Je to. INTF ostuda, když v poslední zatáčce vyrazi.ACT jako torpédo. (=lit. Is it (a) shame that in (the) last curve (he) darts like (a) torpedo.)

Více lidí do práce - to. INTF je klíčové slovo pro úspěšné řešení sociálnich otázek. (=lit. More people to work - that is (the) key word to (a) successful solution (of) social questions.)

## Figure 7.43. The INTF functor



To Jirka ještě spí. (=lit. EMPH Jirka still sleeps.)

### 7.7.2.1. Borderline cases with the INTF functor

Border with the RSTR functor. Modifications with the INTF functor are marginal. If they are expressed by the demonstrative pronoun to (=that), they can get close to the demonstrative pronouns in the position of a modification with the RSTR functor (see Section 7.10.5, "RSTR"). However, they are different from them because they lack the gender and number agreement with the emphasized noun. Cf.:

- To.INTF Karel nepřišel. (=lit. It_is_that.neut Karel did not come.)
- Ten.RSTR Karel nepřišel. (=lit. That.masc Karel did not come.)

INTF modifications also do not have to be adjacent to the subject they emphasize (unlike the pronouns in the RSTR position) . Cf.:

- To.INTF hučí letadla. (=lit.That are_buzzing (the) planes .)
- Ta.RSTR letadla huči. (=lit. The planes are_buzzing.)

Border with arguments. In subjectless sentences it is necessary to represent the pronouns ten (=that) and on (=he) - on the basis of the valency properties of the governing verb - as modifications with the INTF meaning and not as subjects. Cf.:

- To.INTF hučív kominé. (=lit. That is_droning (something) in (the) chimney.)

Valency frame: LOC (*)

- Komin.ACT huči. (=lit. (The) chimney is_droning.)

Valency frame: $\operatorname{ACT}(.1)$

### 7.7.3. MOD

Definition of the MOD functor
The MOD functor (modality) is a functor for such an atomic node that represents an expression of modality of the utterance contents (or its part). This modality can be described as necessity, possibility or probability.

The modality of events (and states) is expressed by means of modal verbs; in such cases the information on modality is carried by the deontmod grammateme value (see Section 5.5.10, "The deontmod grammateme (deontic modality)"). However, modal meanings can also be expressed by certain particles and adverbs. We do not distinguish the individual meanings of such words (necessity, possibility, probability) - we represent all of them as modifications with the functor MOD.

NB! For the syntactic nature of the MOD modifications see Section 6.11.1.3, "The semantic scope of modifications with the functors MOD and ATT".

Forms. The basic forms of MOD modifications are:

- adverbial and particle expressions.

Examples:
Pravděpodobně.MOD přijdeme. (=lit. Probably (we) will_come.) Fig. 7.44
Asi.MOD před týdnem jsem dostal dopis od K. Řeháka z Prahy. (=lit. About ago (a) week - (I) received (a) letter from K. Řehák from Prague.)

Rozhodujicím úkolem nového vedeníje konsolidovat společnost, kteráje bezesporu.MOD perspektivní a životaschopná. (=lit. (The) main task (of) (the) new management is to_consolidate (the) company that is surely successful and prosperous.)

Snad.MOD i proto jsou pokusy o artikulaci odlišných názorů tak nevěrohodné. (=lit. Perhaps also therefore are (the) attempts to articulate different opinions so spurious.)

Starý pán se galantně skloní k momentálně možná.MOD nejvlivnější ženě planety. (=lit. (The) old gentleman - gallantly bows to (the) presently perhaps most_influential woman (of) (the) planet.)

Vím jistě.MOD , že Praha mě poznamená. (=lit. (I) know for_sure that Prague me will_affect.)
Armádni špičky si prý.MOD od něj udržují odstup. (=lit. (The) army elite supposedly from him keep distance.)

Vedlo by to zřejmé.MOD ke zničujícimu rozkolu. (=lit. Would lead it apparently to (a) devastating split.)

## - prepositional phrase.

The most common forms:

| $\mathrm{s}+7$ | Limit bude s největší pravděpodobností zrušen. (=lit. (The) limit will_be - most probably <br> cancelled.) |
| :--- | :--- |
| $\mathrm{v}+6$ | Takoví pracovnici v zásadě neexistují. (=lit. Such workers in principle do_not_exist.) |

It is typical of the modifications with the functor MOD expressed by prepositional phrases that they have - to a certain degree - a fixed lexical content.

Agreeing form of an adjective. With nouns denoting events (nouns ending with -ni and $t i$; see also Section 6.2.4.3.3, "Functors assigned to the non-valency modifications of nouns referring to events"), MOD modifications can also be expressed by an agreeing form of an adjective (only marginally).

Examples:
pravděpodobné.MOD ukončeni závodu (=lit. (a) probable end (of) (the) race)
možné.MOD selhání (=lit. (a) possible failure)

Figure 7.44. The MOD functor


Pravděpodobně přijdeme. (=lit. Probably we_will_come)

### 7.7.3.1. Borderline cases with the MOD functor

Borders with other functors (particularly the functors MANN and EXT). Certain adverbs and particles (e.g. snad (=hopefully), pry' (=supposedly)) have a very specific semantics: they only express modal meanings (therefore the nodes representing these expressions always have the MOD functor). Other adverbs and particles can also have other meanings, besides the modal ones (MANN, EXT etc.). In a particular construction, it is necessary to distinguish these meanings. Cf.:

- Mysleli to doopravdy.MANN (=lit. (They) meant it really.)
- Doopravdy.MOD se to stalo. (=lit. Really REFL it happened.)

Border with the RHEM functor. Modifications with the MOD functor can border on rhematizers. For details see Section 10.6.1.2, "Homonymy: rhematizer - modal expressions (ATT and MOD)".

### 7.7.4. PREC

Definition of the PREC functor

The PREC functor (reference to preceding text) is a functor for such an atomic node that represents an expression linking the clause to the preceding context.

Forms. The basic forms of the linking expressions are:

- adverbial and particle expressions.

Examples:
Kapitálový trh je pak. PREC logickým vyústěním masivní přitomnosti soukromého vlastnictví. (=lit. Capital market is then (a) logical outcome (of) mass presence (of) private ownership.)

Práva napadeného jsou prý naopak. PREC $v \check{C} R$ již celá desetiletí formulována velmi progresívně. (=lit. (The) rights (of) (the) attacked have_been supposedly on_the_contrary, in (the) Czech_Republic already (for) several decades formulated highly progressively.)

Jsem tedy.PREC štasten. (=lit.(I) am therefore happy.)

Lze proto. PREC očekávat, že k původním alergickým projevi̊m se budou přidávat další. (=lit. (It)_is_possible therefore to_expect that - (the) original allergic symptoms will_be_followed (by) (some) more.)

- paratactic connectives.

Examples:
A.PREC to neni pravda. (=lit. And that is_not true.) Fig. 7.45

Ale. PREC to zatím není náš připad. (=lit. But that so far is_not our case.)
Nebot̂. PREC to svědčí o mnohém. (=lit. Because that proves - (a) lot.)
Izolovaný výzkum však. PREC nemůže přinášet výsledky. (=lit. Isolated research, however, cannot bring (any) results.)

For paratactic connectives in the function of linking expressions see also Section 8.16.1, "Co-ordinating connectives".

NB! Nodes with the PREC functor are represented as nodes dependent on the effective root node of the clause which they link to the preceding context. If there is only the linking expression present at the surface structure (an unfinished clause) we interpret such structure as a verbal clause (see also Section 6.4.1, "Verbal clauses"). Example:

Ale.PREC ... \{\#EmpVerb.PRED\} (=But...)

## Figure 7.45. The PREC functor



A to neni pravda. (=lit. And that is_not true.)

### 7.7.4.1. Borderline cases with the PREC functor

Borders with other functors (particularly CAUS, MANN, CNCS). It is not clear whether we should consider the adverbial expressions proto (=therefore), přesto (=in_spite_of), tak (=so) etc. just linking elements (PREC) or whether we should take into consideration rather their secondary meanings (reason, concession, manner) and assign the functors CAUS, CNCS, MANN etc. to the nodes that represent these adverbial expressions. Cf.:

- Většina účastniků musí odejít před pátou. (=lit. Most participants must leave before five.) Proto skončime dřive. (=lit. Therefore (we) will finish earlier.)
!!! The borders with these adverbial expressions were not defined very clearly, the choice of the functor is a matter of the anotator's consideration.


### 7.7.5. RHEM

Definition of the RHEM functor

The RHEM functor (rhematizer) is a functor for such an atomic node that represents a rhematizer.

For the definition of rhematizers see Section 10.6, "Rhematizers".
Forms. The basic forms of rhematizers are:

- adverbial and particle expressions.

Examples:
Jen.RHEM on o tom nevěděl nic. (=lit. Only he about it did_not_know anything.) Fig. 7.46
Vývoj tohoto nepopsatelně složitého organismu budou jen. RHEM těžko ovlivňovat nějaké náhody. (=lit. (The) development (of) this extremely complicated organism will only hardly influence coincidence.)

Za povážlivou označil Kalvoda v této souvislosti í.RHEM průměrnou délku vazby.(=lit. - Alarming called Kalvoda in this context also (the) average time (of) custody.)

Teprve.RHEM před týdnem přestala za prací do Púchova dojíždět. (=lit. Only - (a) week_ago (she) stopped -- to Púchov commuting.)

Pak byla pravopisná komise oživena ještě.RHEM třikrát. (=lit. Then was (the) orthography committee renewed more three_times.)

## - negative and affirmative expressions.

Example:
Kdyby \{\#EmpVerb.COND\} ano.RHEM, pak by asi skončil ve vězení za urážku veřejného činitele. (=lit. If so then (he) would probably end_up in prison for (an) offense (of) (a) state official.)

For more on the negative and affirmative expressions in the function of rhematizers see Section 8.13.1, "Negating and affirmative expressions as rhematizers".

The formal expression of rhematizers is described in detail in Section 10.6, "Rhematizers", the annotation rules for rhematizers see ib .

Figure 7.46. The RHEM functor


Jen on o tom nevěděl nic. (=lit. Only he about it did_not_know nothing.)

### 7.7.5.1. Borderline cases with the RHEM functor

Borders with the functors MOD, ATT, CM and functors for adverbial modifications. Words that can be rhematizers are often homonymous particularly with modal expressions and certain adverbials. For these borderline cases see also Section 10.6.1, "Expressions with the function of a rhematizer".

### 7.8. Functors for multi-word lexical units and foreign-language expressions

One set of functors that do not comply with the general definition of a functor (a functor as a semantic value of the syntactic relation of dependency) are functors for multi-word lexical units and foreignlanguage expressions (among others).

Functors for multi-word lexical units and foreign-language expressions are functors that are used for representing certain multi-word lexical units or foreign-language parts of Czech sentences, which are not structurally analyzed. It holds for the functors in this group, that the node assigned one of them represents either a foreign-language expression (see Section 8.9, "Foreign-language expressions" for more), or a dependent part of a multi-word predicate (represented (so far) by two nodes in the tectogrammatical tree; see Section 6.9, "Multi-word predicates"). The edge connecting the node with this functor and its parent is not expressing a dependency relation (see Section 6.1, "Dependency").

## List of the functors for multi-word lexical units and foreign-language expressions

- CPHR
- DPHR
- FPHR


### 7.8.1. CPHR

Definition of the CPHR functor

The functor CPHR (compound phraseme, or a part of compound predicate) is a functor for the nominal part of multi-word predic-
ates and for the non-verbal part of quasimodal verbs consisting of the verb být ( $=$ to be) and a predicative adverb.

See Section 6.9.3, "Complex predicates" for more on multi-word predicates. For more on quasimodal verbs consisting of the verb být (=to be) and a predicative adverb see Section 8.2.1.3, "Copula "být" (verbonominal predicate)".

The expression represented by the node with the functor CPHR constitutes one multi-word lexical unit together with the verb represented by the parent of this node, while the main lexical meaning of the whole unit is carried by the node with the functor CPHR.

Forms. The expression represented by the node with the functor CPHR is:

## - (usually deverbal) noun.

Examples:
Dostali rozkaz.CPHR nevycházet ze stanů. (=They received a command not to leave their tents.) Fig. 7.47

Učinil rozhodnutí.CPHR (=He made a decision.)
See Section 6.9.3.1.2, "Properties of the nominal component of complex predicates" for more.

- predicative adverb.

Example:
Je třeba.CPHR odejít. (=It is necessary to leave.)
See Section 8.2.1.3, "Copula "být" (verbonominal predicate)" for more.

Figure 7.47. The CPHR functor


Dostali rozkaz nevycházet ze stanů. (=lit. (They) received a_command not_to_leave - tents.)

### 7.8.1.1. Borderline cases with the functor CPHR

Borders with the functor DPHR. The functors CPHR and DPHR often compete. The decision which of the functors should be assigned to the node is closely related to the borders between individual types of multi-word predicates. For more on this see Section 6.9.4, "Borderline cases with multi-word predicates".

### 7.8.2. DPHR

Definition of the functor DPHR

The functor DPHR (dependent part of phraseme) is a functor for a dependent part of a phraseme.

For details on phrasemes see Section 6.8, "Idioms (phrasemes)".
The expression represented by a node with the functor DPHR constitutes one multi-word lexical unit (phraseme) together with the expression represented by the parent of this node. This lexical unit as a whole carries a metaphorical meaning, wheere the meaning of the whole unit cannot be derived from the meaning of its parts.

We consider the nodes that are assigned the functor DPHR to be a special type of nodes (nodetype=dphr). See Section 3.6, "Nodes representing the dependent parts of idiomatic expressions" for details.

Forms. The expression represented by a node with the functor DPHR can take different forms.

Examples:
Jde mi na nervy.DPHR (=He gets on my nerves.) Fig. 7.48
široko daleko.DPHR (=lit. wide far)
křižem krážem.DPHR (=lit. criss cross)
Figure 7.48. The DPHR functor


Jde mi na nervy. (=lit. (He) goes me on nerves.)

### 7.8.2.1. Borderline cases with the functor DPHR

Borders with the functor CPHR. The functors DPHR and CPHR often compete. The decision as to which of the functors should be assigned to the node is closely related to the borders between the individual types of multi-word predicates. For more on this see Section 6.9.4, "Borderline cases with multiword predicates".

### 7.8.3. FPHR

Definition of the functor FPHR
The functor FPHR (foreign phrase) is a functor assigned to the node representing a foreign-language expression, which is a part of a structurally non-analyzed text.

For more on foreign-language phrases see Section 8.9, "Foreign-language expressions".
We consider the nodes that are assigned the functor FPHR to be a special type of nodes (nodetype=fphr). For more on this see Section 3.5, "Nodes representing foreign-language expressions".

Forms. The node with the functor FPHR is used for representing:

- foreign-language words.
- punctuation and graphical symbols, which are part of a foreign-language text.

Example:
Cizinec zvolal: "This.FPHR is.FPHR not.FPHR true.FPHR : [\#Period.FPHR] " (=The foreigner shouted: "This is not true".) Fig. 7.49

Figure 7.49. The FPHR functor

```
O
< <volat.enunc
f_PRED
v decl.disp0. ind
cpl.it0.res0.ant
\square
cizinec #Forn
t_ACT ! f_PAT
n.denot list
anim.sg
dsp_root.quot/type:dsp
\begin{tabular}{llll}
0 & 0 & 0 & \(\ddots\) \\
this & is & not & true \\
FPHR & FPHR & FPHR & FPHR
\end{tabular}
fphr fphr fphr fphr
    quot/type:dsp quot/type:dsp quot/type:dsp quot/type:dsp
```

Cizinec zvolal: "This is not true." (=lit. (The) foreigner shouted: "This is not true".)

### 7.8.3.1. Borderline cases with the functor FPHR

Border with the functor ID. One-word foreign-language expressions are assigned the functor ID in the position of the nominative of identity (and not FPHR). For more on this see Section 8.8.2.1, "Specific rules for certain types of proper nouns".

### 7.9. Functors for specific (new) modifications

This section describes functors that are assigned to certain specific modifications that are not traditionally included in the syntactic descriptions. These functors have not beed put into the individual groups of functors yet (e.g. the functor BEN could be said to belong to the group of functors for manner and its specific variants).

## List of the functors for specific (new) modifications

- BEN
- CONTRD
- HER
- SUBS


### 7.9.1. BEN

Definition of the functor BEN
The functor BEN (benefactor) is a functor for a free modification expressing to whose benefit or disadvantage the event expressed by the governing verb takes place.

We assign the functor BEN to modifications of several meanings:

- modifications with the meaning of benefit/disadvantage (in a narrower sense).

The modification with the BEN functor expresses, to whose benefit, disadvantage, honor or shame the event is happening. It concerns the so called dative of benefit with a possible alternative expression by a prepositional phrase pro +4 . Also the emphatic reflexive si traditionally belongs to this group.

## Examples:

Mikeš chytil krejčímu Matochovi. BEN uprchlého kanárka. (=Mikeš caught an escaped canary for the tailor Matonoha.)

Kreslil pro děti.BEN nádherné obrázky. (=He painted beautiful paintings for the children.)
zakázka pro firmu.BEN (=an order for a company) Fig. 7.50
Hraje dětem/pro děti. BEN divadlo. (=He plays theatre tolfor children.)
Premiér v rozhovoru pro rozhlas.BEN znovu zopakoval, že nemá mandát k rozhodnutí o úplném staženi. (=The prime minister repeated in the interiew for the radio that he has no mandate for the full evacuation.)

Žijeme na úkor budoucnosti.BEN (=We live at the expense of the future.)
Statečně si.BEN vykračoval. (=He really stalked for himself.)

- modifications with the meaning of the owner of an object.

The modification with the functor BEN is also used for the owner of an object, especially of a bodily part, pieces of clothes but also other objects. It concerns the so called possessive dative.

Examples:
Padá mu.BEN hlava na prsa. (=His head is falling on his breast.)
Podjely mu.BEN nohy. (=His feet slipped.)
Držel sí.BEN klobouk. (=He held his hat.)
Teče mu.BEN do bot. (=It leaks into his shoes.)
Hodinky mi.BEN jdou přesně. (=The watch works precisely.)

- modifications with purely comunicative functions (ethical dative).

A modification with the functor BEN can also express the effort to attract interest and attention of the listener. It usually concerns the forms mi, nám, ti, vám.

Examples:
To tí.BEN byla zábava. (=It was such fun!)
Děti se nám. BEN toulají. (=The children don't come home as they should)
Ten pán vám.BEN měl ale fousy! (=The beard the man had!)
!!! The functor ETHD originally proposed for the cases of ethical dative is not used any more. The reason is that there are too many unclear cases).

Subfunctors. The BEN functor is further specified by subfunctors. For more on this see Section 7.13.1.2, "Subfunctors with the BEN functor".

BEN modifications modify verbs (e.g.: Hraje dětem.BEN divadlo. (=He plays theatre for the children.)), nouns (e.g.: přidavky na děti.BEN (=allowance for children)), and adjectives (závěry pro republiku.BEN nepřijatelné (=results unacceptable for the republic)).

Valency. BEN modifications are typically optional. They can only be considered obligatory when competing with manner modifications after certain verbs (verbs that require a modification of manner). For more on this see Section 6.2.3.1.5.3, "Competing locative/directional adjuncts (of different types)"..

Forms. The basic forms of BEN modifications are:

- case in a non-prepositional case form.

The most common forms:
dativ $\operatorname{Penize~zůstanou~klientovi~dále~na~účtě.~(=The~money~stays~at~the~client's~account.)~}$

## - prepositional phrase.

The most common forms:

| k prospěchu +2 | Bylo by to ku prospěchu věci. (=That was to the benefit of the matter.) |
| :---: | :---: |
| na+4 | přidavky na děti (=allowance for the children); Rozhodnutí není prenosné, každý výrobce musí mit rozhodnutí vystavené na sebe. (=The decision is not transferable, each producer has to get a decision issued for him.) |
| na vrub+2 | Na vrub daňové reformy lze přičist osm procent. (=Eight percent can be counted on account of the tax reform.) |
| na úkor+2 | Hlavni překážkou státu fungovat na úkor jednotlivce je demokratický politický systém. (=The main obstacle for the state to live at the expense of individuals is the democratic political system.) |
| na účet+2 | Nizozemský parlament přijal v souvislosti s rostoucím počtem nelegálnich přistěhovalců zpřisněný zákon, a to i na účet domorodcủ. (=The Dutch parliament accepted a stricter law in connection with the growing number of illegal immigrants, even at the expense of the natives.) |
| pro+4 | šance pro movité nájemniky (=a chance for rich tenants) |
| proti+3 | Odmitl znevýhodnit české vývozce proti exportérům ze třetich zemí úpravou kurzu české koruny vůči ECU. (=He refused to disadvantage the Czech exporters against the third countries exporters by changing the Czech crown rate to ECU.) |
| v neprospěch +2 | Stále je velký nepoměr mezi počtem žadatelů a počtem dětí uvolněných do osvojeni $v$ neprospěch manželských párů. (=There is still a great disproportion between the number of applicants and the number of children released for adoption to the disadvantage of the married couples.) |
| ve prospěch +2 | Očekává se rozsudek ve prospěch Škodovky. (=A decision in favour of the Škoda factory is expected) |
| v zájmu+2 | Věřme, že výši přijmů je třeba v zájmu diváka zachovat. (=We believe that the revenue needs to be maintained in the interest of the viewer.) |

Dependent clause. A modification with the functor BEN is represented by a dependent clause only with the help of a supporting word; e.g.:

To je další argument proti tomu, aby mzdová regulace vůbec existovala. BEN (=That is another argument against the sheer existence of wages regulation.)

NB! We insert a node representing a modification with the BEN functor into some control constructions. For more on this see Section 9.2.4, "Control".

Figure 7.50. The BEN functor

zakázka pro firmu (=lit. order for company)

### 7.9.1.1. Borderline cases with the BEN functor

Border with the functor $A D D R$. The modification with the functor BEN is semantically (as well as formally) close to the Addressee. For more on this border see Section 6.2.3.1.3.2, "The borderline between the Addressee and Beneficiary".

Border with the functor AIM. The modification with the functor BEN is semantically (as well as formally) quite close to modifications with the functor AIM (see Section 7.5.1, "AIM"). For more on this see Section 7.5.1.1, "Borderline cases with the AIM functor ".

Border with the functor REG. The BEN modification can in some cases be also similar to a modification with the meaning of regard (REG; see Section 7.6.8, "REG"). It concerns the cases of the so called regard dative. There are no clear criteria for distinguishing these cases but in principle we can say: if the modification has a form of the dative and is animate, the BEN functor is to be preferred. Compare:

- Václav Karas se jim.BEN stával autoritou. (=Václav Kras was becoming an authority for them.)

For more borderline cases with the functor REG see Section 7.6.8.1, "Borderline cases with the REG functor".

### 7.9.2. CONTRD

Definition of the functor CONTRD The functor CONTRD (contradiction) is a functor for free modifications expressing a confrontational background for the event (or state) expressed by the governing verb.

The confrontation is usually carried out in such a manner, that in the background of one fact (expressed by a clause), a different or contradicting fact (also expressed by a clause) comes into the foreground as with an embossed relief. Therefore, a free modification with the functor CONTRD is usually represented by a verbal clause. Typically, the syntactic structure of the governing clause and the dependent clause is parellel.

Forms. A modification with the functor CONTRD is formally expressed by a dependent clause introduced by a subordinating conjunction zatímco:

## - dependent clause.

The most common forms:
zatímco Zatímco dříve se dotovaly byty, které ovšem zdaleka nedostávali ti nejpotřebnější, napřišstě by měly peníze sméřovat přimo $k$ lidem, tedy k nájemnikuim. (=While the apartments were subsidized in the past for those who did not really need them, the money should be directed to the tenants directly in the future.)

## Examples:

Zatímco loni prý v premiéře proti Samprasovi hrál.CONTRD chaoticky, nyní už měl plán. (=While he was told to play chaotically last year in his premiere against Sampras, now he had a plan.) Fig. 7.51

Tvorbu zisku omezuje vysoká daň z přidané hodnoty na výstupech, zatímco značná část vstupů je zatižena. CONTRD minimální sazbou odpočitatelné daně. ( $=$ The revenue creation is limited by the high VAT on the output, while the major part of the input is charged by the minimal rate od the deductive tax.)
$Z$ repertoáru ministra financí má zaznít zhudebněná báseň Bez peněz do hospody nelez, zatímco předseda republikánů nacvičuje.CONTRD evergreen Pryč s tyrany a zrádci všemi. (=We should hear a musical version of the poem "Do not go to the pub with no money" from the repertoir of the finance minister, while the head of republicans is training the evergreen "Away with tyrants and all traitors".)

Zatímco v roce 1989 obnášel.CONTRD výrobní sortiment Desty deset výrobků, může dnes děčinská akciová společnost nabidnout téměr pět desitek nových výrobků. (=While the portfolio of Desta company contained ten products in the year 1989, the company from Decin can offer almost fifty new products today.)

Figure 7.51. The CONTRD functor


Zatímco loni prýv premiérée proti Samprasovi hrál chaoticky, nyní už měl plán. (=lit. While last_year they_say in premiere against Sampras (he) played chaotically, now already (he) had plan.)

### 7.9.2.1. Borderline cases with the functor CONTRD

Border with the functor TPAR. Apart from introducing dependent clauses with the CONTRD meaning, the subordinating conjunction zatímco ( $=$ while) can also introduce dependent clauses with the meaning of the temporal functor TPAR (see Section 7.3.7, "TPAR"). The choice between these two functors can sometimes be problematic, as two parallel events (TPAR) can, at the same time, sharply contradict each other (CONTRD). The meaning of confrontation is present in those cases when the dependent clause, introduced by the conjunction zatímco, does not refer to an event simultaneous with that denoted by the governing clause. In those cases where the two events are simultaneous (whether contradictory or not), the effective root node of the dependent clause is assigned the functor TPAR. Compare:

- Zatímco Sparta v druhé třetině vedla.CONTRD, nakonec odcházela se svěšenou hlavou. (=While Sparta led the match in the second third, finally they were leaving with their heads bowed.)
- Zatímco já jsem celý den tvrdě pracovala.TPAR, ty jsi jen lenošila. (=While I have been working the whole day, you only lazed about.)

For more on dependent clauses introduced by the conjunction zatimco (while) see also Section 6.5.4.2.2, "Constructions with the connective "zatímco"".

Border with the functor CONFR. The functor CONTRD is semantically very close to a functor of coordination, namely CONFR (see Section 7.12.1.2, "CONFR"). However, the confrontation meaning with the CONTRD functor is expressed hypotactically, while the CONFR functor is reserved for the cases of confrontation expressed paratactically. Compare:

- Zatímco loni prýv premiérée proti Samprasovi hrál.CONTRD chaoticky, nyní už měl plán. (=While he was told to play chaotically last year in his premiere against Sampras, now he had a plan.)
- Loni prý v premiéré proti Samprasovi hrál chaoticky, kdežto.CONFR nyní už měl plán. (=He was told to play chaotically last year in his premiere against Sampras, whilst now he had a plan.)

For more on the equivalence between functors for coordination and functors for dependent modifications see also Section 6.6.2, "Coordination and apposition".

Borders with other functors (especially with the COND functor). A similar meaning of confrontation (or background for something else), expressed hypotactically, can be found in dependent clauses introduced by the subordinating conjunctions jestliže ( $=i f$ ), aby ( $=s o$ that), $k d y z ̌$ ( $=w h e n$ ). However, the meaning of confrontation or background in these clauses is rather covered by the meaning of the subordinationg conjunction (i.e. condition, purpose or a temporal meaning). Therefore we prefer to use the functors for these meanings. Compare:

- Jestliže dnes za surové dřiví z jednoho hektaru smrkového lesa může utržit. COND asi 350 tisic korun, zhruba 140 tisic korun z toho musí vynaložit na založení dalšiho porostu. (=If he can sell the raw wood from one acre of pine forrest for 350 thousand crowns, he has to spend approximately 140 thousands crowns on planting the new vegetation.)

See Section 6.5.4.2, "False dependent conjunctional clauses" for details.

### 7.9.3. HER

Definition of the functor HER
The functor HER (heritage) is a functor for a free modification denoting usually a person (but also a group of people, institution, time) after which some other subject has inherited, adopted some object of material or abstract nature.

The inherited object is transferred from the ownership of one subject to the ownership of another subject either by the event of the first subject (original owner) losing the object and the other getting it (in cases of material objects), or the "inherited object" is "copied" from one subject to the other (usually in case the object is abstract). As a result of the process, the inherited object can be also affected by some kind of change, or it can be created in the process of heritage.

A modification with the functor HER can modifiy verbs (e.g.: jmenovat se po babičce.HER (=be named after one's grandmother)) or nouns (e.g.: jméno po babičce.HER (=name after gramndmother)).

Forms. HER modifications are mainly expressed by the preposition po+6 (e.g.: dům po dědečkovi (=lit. house after grandfather), zůstalo nám to po něm (=it was left after him)); with the noun dédictví (=heritage), they can also be expressed by a noun in the genitive case (je to dědictví komunistického režimu (=it is a heritage of the communist regime)):

## - prepositional phrase.

The most common forms:

| po+6 | Nikdy svi̊j vdovsk'́ status neporušila a po Juliu Fučikovi pobirala 320 korun vdovské <br> penze. (=She never disobeyed her status of a widow and she received a widow's pension <br> of 320 crowns after Julius Fučik.) |
| :--- | :--- |
| podle+6 | Jmenovala se Barbora podle patronky horniků. (=She was named Barbora after the <br> benefactress of miners.) |

Examples:
dům po dědečkovi.HER (=house after grandfather) Fig. 7.52
Operu Národního divadla povede po Herrmannové.HER dirigent Jiří Bělohlávek. (=JB will conduct the Opera of the National Theatre after Hermannova)
obrovský nemovitý majetek zděděný po Revolučním odborovém hnutí (=large real estate property inherited after the Revolutionary labour union).HER

Pes Blackie zdědil po svém pánovi J. Goodchildovi.HER 33 tisic dolarů. (=The dof Blacky inheritied after his lord J. Goodchild 33 thousand dollars.)

Zůstal zde majetek po třech a půl miliónu. HER Němců. (=The property after 3,5 millon of Germans was left here.)

Figure 7.52. The HER functor

```
O
```

dům po dědečkovi (=lit. house after grandfather)

### 7.9.3.1. Borderline cases with the functor HER

Border with the functor ORIG. Modifications with the functor HER can border especially on ORIG modifications. The ORIG modification is an argument - with verbs - unlike the modification with the functor HER. Distinguishing these two functors is more complicated if they modify noun, as ORIG is an adjunct functor with them (see Section 6.2.3.2.3.2, "Origo as a modifier of nouns").

## Compare:

- Jméno dostala holčička po kmotře. HER (=lit. The_name was_given the_girl after the _godmother.)

The modification po kmotře (=after the godmother) denotes a person, from whom another person (the girl) inherited an object of abstract nature (name; the girl's name is the same as the godmothers' name). The modification is not a part of the valency frame of the verb, therefore it is assigned the functor HER.

- Jméno dostala holčička od kmotry.ORIG (=lit. The_name was_given the _girl from the _godmother.)

The modification od kmotry (=from the godmother) denotes a person, who is an author of the girl's name (the name of the girl can be, but not necessarily is, the same as the godmother's name). The prepositional phrase $o d+2(=$ from +2$)$ after the verb dostat is a valency modification. Therefore, the modification od kmotry (=from the godmother) will be assigned the functor ORIG, even if the construction is meant to express rather the meaning of heritage (the speaker wanted to express that the girl's name is the same as the godmother's name).

Similarly:

- Po otci.HER dostal Karel zimnik. (=lit. After (his) father got Karel a_wintercoat.)
- Od otce.ORIG dostal Karel zimnik. (=lit. From (his) father got Karel a_wintercoat.)
- Od otce.ORIG dostal Karel po dědovi.HER zimnik. (=lit. From father got Karel after grandfather a_wintercoat.)
!!! The HER functor is rather marginal.The annotation has shown that the definition of this functor does not distinguish it sufficiently from the functor ORIG. It is necessary to make the definition of the functor HER clearer in the future.


### 7.9.4. SUBS

Definition of the functor SUBS
The functor SUBS (substitution) is a functor for a free modification expressing that certain entity (event, state, person or object) has been substituted, replaced by some other entity (event, state, person or object).

The SUBS modification mainly modifies verbs.
Forms. The basic forms of modifications with the functor SUBS are:

## - prepositional phrase.

The most common forms:

| jménem+2 | Libuše Šroubková jménem firmy Inreka předala vedení základní školy Na Hanspaulce deset nových tříd. (=Libuše Šroubková in the name of the Inreka company handed over ten new classrooms to the basic school Na Hanspaulce.) |
| :---: | :---: |
| místo +2 | Do učeben zasednou otcové misto svých synů, kteří odjedou domů a starají se o statek. (=The fathers will sit in the classrooms instead of their sons, who will go home and take care of the farms.) |
| namísto +2 | Namísto očekávaných statisiců Moskvanů přišlo své vojáky uvitat jen dva a půl tisice lidi. (=Instead of expected hundreds of thousands of Moscow inhabitants, only 2500 people came to welcome their soldiers.) |
| v zastoupení+2 | IRA v zastoupení svého politického křidla strany Sinn Fein rozhodně k jednacímu stolu nepřistoupí s prázdnýma rukama. (=IRA on behalf of its political wing, Sinn Fein party, will definitely not approach the discussion table with empty hands.) |
| výměnou za+4 | Irští republikáni budou výměnou za přiměří požadovat stažení části kontingentu ze Severniho Irska. (=The Irish republicans will ask for evacuation of a part of the contingent in exchange for the cease-fire.) |
| za+4 | Mám-li ovšem mluvit za sebe, trochu maluji a pišu. (=But should I speak for myself, I paint and write a little.); Za otce jednal stry'c. (=The uncle acted on behalf of my father.) |

Example:
Výměnou za srnku.SUBS dostali několik bažanti̊. (=In excahnge for the deer they got a few feasants.)
Fig. 7.53

## - dependent clause.

The most common forms:

| místo (toho) - <br> aby | Svobodná inteligence musí spolupracovat a pomáhat, místo aby se posmivala.; <br> Misto toho, aby v zájmu veřejnosti působily na činnost svěrených institucí, |
| :--- | :--- |


|  | zaměřujı́ obě rady většinou svou energii směrem opačným. (=Instead of organ- <br> izing the actions of the institutions they are responsible for, both the committees <br> direct their energy in the opposite direction.) |
| :--- | :--- |

Example:
Misto toho, aby pracoval.SUBS spí. (=Instead of working, he sleeps.) Fig. 7.54

NB! The SUBS functor is assigned to all constructions (dependent clauses) with the meaning of substitution in which other than the genitive form is used after the preposition misto or namisto (=instead). For more on this see Section 8.17.3, "The prepositions "kromě", "mimo", "vedle", "místo", "namísto"".

## Figure 7.53. The SUBS functor



Výměnou za srnku dostali několik bažanti̊. (= lit. In_exchange for deer (they) got a few pheasants.)

Figure 7.54. The SUBS functor


Misto toho, aby pracoval, spí. (=lit. Instead that to work, (he) sleeps.)

### 7.9.4.1. Borderline cases with the functor SUBS

Borders with other functors (especially with the functors CAUS and AIM). The modification with the functor SUBS borders with other modifications usually only in case it is expressed with the help of the ambiguous preposition $z a+4$. All the other forms only express the SUBS meaning. It is necessary to consider the meaning of the modification carefully if the ambiguous prepositional phrase $z a+4$ is used. Compare:

- Dostal cenu za otce (=He got the prize instead of his father)

If the meaning of the modification $z a$ otce is "místo otce (=instead of his father)", it will be assigned the functor SUBS. If it expresses the reason why he got the prize (e.g.: Dostal cenu za film Otec. (=He got the prize for the movie Father)), it will be assigned the functor CAUS.

- Zaměstnanci se bouří za mě. (=The employees revolt for me.)

If the meaning of the modification za mě (=for me) is "místo mě (=instead of me)", it will be assigned the functor SUBS. If it expresses the purpose why they revolt (e.g.: Zaměstnanci se bouří za mé, aby mé nevyhodili z práce. (=The employees are revolting for me, so that I do not get fired.)), it will be assigned the functor AIM.

### 7.10. Specific adnominal functors

Specific adnominal functors are those functors that are assigned to modifications exclusively modifying (semantic) nouns. The verbal functors only are not sufficient for representing all the functions of adnominal modifications. Some of the adnominal modifications have specific functions that are not found with verbal modifications. These specific functions of adnominal modifications are described by the following five functors.

## List of the adnominal functors

- APP
- AUTH
- ID
- MAT
- RSTR

Valency. The modification with the MAT functor is argumental in nature. All the other specific adnominal functors belong to the class of free modifications (adjuncts). With some nouns, the modification with the APP functor has the role of an obligatory free modification. See Section 6.2.3.2.3, "Arguments and adjuncts in the valency frames of nouns" for details.

NB! Those modifications of nouns that have the same meaning as modifications that are essentially verbal are assigned verbal functors no matter whether the noun is deverbal or not.

### 7.10.1. APP

Definition of the functor APP
The functor APP (appurtenance) is a functor for a free adnominal modification denoting a person or an object, to which the person or object referred to by the governing noun is in the relation of appurtenance.

The modification with the functor APP is defined semantically. It denotes the appurtenance of one person or thing to another in a very broad sense. The paraphrase " X has Y ", where X is the modification with the APP functor and Y is its governing noun. Compare:

- otec ditěte. $\operatorname{APP}$ (= father of the child)
$=$ father has the child, the child belongs to the father.
- střecha domu.APP (=lit. the_roof of _the_house)
$=$ the house has a roof, the roof belongs to the house .
The modification with the functor APP bears especially the following meanings:
- expression of kinship (or friendship; also in the metaphorical sense).

Examples:
manžel slavné spisovatelky.APP (=husband of the famous writer)
duchovní otec nové měny.APP (=the spiritual father of the new currency)
její.APP přibuzná (=her relative)
moji.APP rodiče (=my parents)
přitel ministra.APP (=minister's friend)
NB! The free modification with the functor APP is an obligatory modification in the valency frames of nouns denoting family relationships (and other nouns with a similar meaning). For more on this see Section 6.2.3.2.4.6, "Valency frames of nouns referring to blood (family) relations".

- expressing the appurtenance of a person to an institution (the name of the person).

Examples:
přislušnik armády.APP (=member of the army)
brankár vedouciho týmu.APP (=the goal-keeper of the leading team)
člen výkonného výboru.APP (=a member of the executive committee)
NB! The free modification with the functor APP is an obligatory modification in valency frames of some nouns denoting the appurtenance. For more on this see also Section 6.2.3.2.4.6, "Valency frames of nouns referring to blood (family) relations".

- expressing the appurtenance of some people to an institution (the name of the organization).

Examples:
tým brankářů.APP (=a team of goal-keepers)
organizace neslyšicich.APP (=an organization of the hearing-impaired)

- denoting a bearer of a (physical, mathematical) property or quality.

Examples:
mira nezaméstnanosti.APP (=the unemployment rate)
úroveň ubytování.APP (=the quality of accommodation)
průměrnou délku vazby.APP (=the medium length of the arrest)
autorova.APP upřimnost (=the author's honesty)
NB! With some nouns, the bearer of the property/quality is a valency modification. For more on this see Section 6.2.3.2.4.9, "Valency frames of nouns referring to personal qualities and properties of things".

- expressing the ownership

Examples:
její.APP seznam (=her list)
má.APP vyšší postava (=my higher figure)
naše.APP kapela (=our band)
dům mého otce.APP (=my father's house)

- expressing a part-whole relation

Examples:
okraj chodniku.APP (=the edge of the pavement) Fig. 7.55
strecha domu.APP (=the roof of the house)
noha od stolu.APP (=the leg of the table)
vnitřek prodejny.APP (=the inside of the shop)
inzertní oddělení redakce.APP (=the advertisement department of the redaction)
široký pás území.APP (=wide stripe of land)
závěr utkání.APP (=the end of a match)

- expressing the appurtenance in a very broad sense (with abstract expressions).

Examples:
auto roku.APP (=the car of the year)
poezie lásky.APP (=love poetry)

Forms. The modification with the functor APP is primarily expressed by a noun in the genitive case or by a possessive adjective.

The basic forms of modifications with the functor APP are:

- noun in a non-prepositional case form.

The most common forms:
genitive organizace neslyšicich (=the organization of the hearing-impaired)

- possessive adjective.

Example:
můj.APP klobouk (=my hat)

## - prepositional phrase.

The most common forms:

| $\mathrm{k}+3$ | hudba k filmu (=music to the movie); klič ke schránce (=key to the locker) |
| :--- | :--- |
| $\mathrm{na}+4$ | obruby na brýle (=lit. frames for glasses) |
| $\mathrm{od}+2$ | láhev od šampaňského (=lit. bottle from champagne) |

Dependent clause. The modification with the functor APP can be expressed by a dependent clause only with the help of a supporting expression. Example:

Fotografové křiži různé významové roviny toho, co vidíme.APP (=The photographers cross the meaning layers of what we can see)

Figure 7.55. The APP functor

okraj chodniku (=lit. edge of pavement)

### 7.10.1.1. Borderline cases with the functor APP

Borders with the functors AUTH and RSTR. The functor APP borders on the adnominal functors AUTH and RSTR (in cases like: Karlova.APP knižka (=Charles' book) vs. Nezvalovy.AUTH básně (=Nezval's poems)). For details see Section 7.10.2.1, "Borderline cases with the functor AUTH".

Borders with the functors PAT and ACT. The functor APP in the position of an obligatory free modification borders on the Patient and Actor. For more on this see Section 6.2.3.2.3.3, "Borderline between the Patient and the MAT and APP functors" and Section 6.2.3.2.4.9, "Valency frames of nouns referring to personal qualities and properties of things".

Border with the functor MAT. The modification expressing the appurtenance can (when in the genitive form) in some cases border with the meaning of the functor MAT (see Section 7.10.4, "MAT"). If the governing noun denotes an institution, organization, group etc., the dependent modification is more likely to be assigned the functor APP; the MAT functor is assigned in those cases where the governing noun expresses rather the size of the group (it does not express its character, it only has the meaning of a container). Compare:

- organizace neslyšicich.APP (=the organization of the hearing-impaired)
spolek zahrádkárǐ.APP (=the association of gardeners)
trída dětí.APP (=a class of children)
- většina lidí.MAT (=lit. most of people)
dvojice žen.MAT (=pairs of women)
(velká) skupina dětí.MAT (=(large) group of children)
Border with the functor ID. The functor APP borders on the functor ID in cases like trest smrti. ID (= death sentence) (explicative genitive). For more on this see Section 8.8.1, "Basic rules for the annotation of identifying expressions".


### 7.10.2. AUTH

Definition of the functor AUTH
The functor AUTH (author) is assigned to those free modifications of nouns that denote the author of an artefact.

Both deverbal and non-derived denoting products of the human intellect, results of scientific work or works of art (in a very broad sense) are called nouns denoting artefacts. For example: socha (=statue), obraz (=image), román (=novel), film (=movie), opera (=opera), balada (=ballad), báseň (=poem), monografie (=monograph), memoáry (=memoirs), partitura (=score), pomníček (=memorial), publikace (=publication), stavba (=building), tvorba (=creation), teorie (=theory), disertace (=dissertation) (for more on valency of these nouns see Section 6.2.3.2.4.7, "Valency frames of nouns: names of intellectual products (artefacts)"). Artefacts can also be denoted by a proper noun (e.g.: Smetanova.AUTH Má vlast (=Smetana's My Country). AUTH modifications can potentially modify any noun; compare: Děti se pokoušely namalovat krásu. (=Children tried to paint beauty.) Janova.AUTH krása se pak umistila v soutěži o nejhezčí obrázek na abstraktní téma. (=Jan's beauty gained a good position in the contest of the best abstract picture.)

Valency. AUTH modifications are always non-valency modifications.
Forms. The modification with the functor AUTH is primarily expressed by a noun in the genitive or by a possessive adjective.

The basic forms of modifications with the functor AUTH are:

## - noun in a non-prepositional case form.

The most common forms:

> | genitive | $\begin{array}{l}\text { deset básnických sbirek mladých básnikio a básnirrek (=ten poetry collections. GEN of } \\ \text { young male and female poets) }\end{array}$ |
| :--- | :--- |

## Examples:

básně Vitězslava Nezvala.AUTH (=poems by Vitězslav Nezval) Fig. 7.56
dekret nového ukrajinského prezidenta Leonida Kučmy.AUTH (=the order of the new president of Ukraine, Leonid Kutchma)
román Oty Filipa.AUTH (=a novel by Ota Filip)

## - possessive adjective.

Examples:
Vavrouškova.AUTH teorie "trvale udržitelného způsobu života" (=Vavroušek's theory of permanently sustainable way of living)

Svěrákův.AUTH Akumulátor 1. (=Svěrák's Accummulator 1)
autorova.AUTH současná tvorba (=author's present work)
nás. AUTH článek (=our article)
jeho.AUTH texty (=his texts)
skladatelovo.AUTH nejúspěšněǰ̌i hudebně-dramatické dilo (=the composer's most famous musicallydramatic piece)

- prepositional phrase.

The most common forms:

> | od +2 | $\begin{array}{l}\text { skladba Svatý Václave od Marty Jiráčkové (=composition Saint Wenceslas by Marta } \\ \text { Jiráčková) }\end{array}$ |
| :--- | :--- |

Examples:
podobizna Matěje Kopeckého od Mikoláše Alše.AUTH (=the portrait of Matěj Kopecký by Mikoláš Aleš)
skladby od méně slavných přibuzných.AUTH (=the compositions by the less famous relatives)

## Figure 7.56. The AUTH functor



## básně Vitězslava Nezvala (=lit. poems (by) Vitězslav Nezval)

### 7.10.2.1. Borderline cases with the functor AUTH

Border with the functor ACT. The AUTH modification can be interpreted as the Actor, too. For more on borderline cases with the functors AUTH and ACT see Section 6.2.3.2.3.1, "Borderline between the Actor and AUTH".

Borders with the functors APP and RSTR. The functor AUTH borders formally (and semantically) also with the adnominal functors APP and RSTR. When the choice of the functor is not straightforward, the following criteria should be used:

- we assign the functor APP to modifications primarily denoting the owner of the modified object (regardless of whether the person owning the object was or was not the creator of the object).
- we assign the functor AUTH to those modifications, that primarily express the real creator.
- we assign the functor RSTR to modifications expressing the meaning "in honor of", "in memory of" (for details see Section 8.8.2.1, "Specific rules for certain types of proper nouns").

Compare:

- básnická sbirka Nezvala.AUTH (=the poetry collection by Nezval)

Nezvalova.AUTH básnická sbirka (=Nezval's poetry collection)

- básnická sbirka mého kamaráda.APP (=my friend's poetry collection)
kamarádova.APP básnická sbirka (=my friend's poetry collection)
(I have borrowed it from him)
- básně severských národů.APP (=Northern nations' poems) pohádky severských zemí.APP (=Northern countries' tales)

Nations, countries, tribes are more of the owners of these artefacts than their creators.

- náméstí V. Nezvala.RSTR (=V. Nezval's square)

Karlův.RSTR most (=Charles Bridge)
Smetanova.RSTR Litomyšl (=Smetana's Litomyšl)
The choice of the functor can be problematic - it is not a matter of language, it rather requires knowledge of the world or situation. Compare:

- brožurka Dagmar Lánské.AUTH/APP (=the brochure of Dagmar Lánská)

Is D. Lánská the author (AUTH), or does the brochure belong to her (APP)?

### 7.10.3. ID

Definition of the functor ID
The functor ID (identity) is used as a functor for the effective root of an identifying expression, which is represented as an identification structure.

For the definition of identifying expressions and their annotation rules see Section 8.8, "Identifying expressions".

The functor ID is assigned to adnominal adjuncts representing meta-language expressions, proper nouns and names of animals, objects and events - they have the form of the nominative of identity (see Section 8.8.1, "Basic rules for the annotation of identifying expressions") or the so-called explicative genitive (see Section 8.8.1, "Basic rules for the annotation of identifying expressions").

Valency. The ID modification is always a non-valency modification.
Forms. The basic forms of modifications with the functor ID are:

## - noun in a non-prepositional case form.

The most common forms:

| nominative | v př́padu Kott - Kutilek (= in the case Kott-Kutilek); agentura Reuter (=Reuter <br> agency); pojem čas (=notion of time) |
| :--- | :--- |
| genitive | osoba Václava Klause (=lit. person (of) Václav Klaus); trest odnětí svobody (=lit. <br> sentence (of) - prison); pojem času (=notion of time) |

Example:
opera Brundibár. ID (=opera Brundibár) Fig. 7.57

NB! Identifying expressions (ID) can take any form.
Examples:
nápis Obětem. ID války (=the sign "To the victims of war")
skladba Svatý Václave. ID (=lit. piece Saint Wenceslas!)
povidka Opatrně.ID (=the short story Carefully)
Řekl to v úterýv pořadu Proč.ID (=he said it on Sunday in the programme "Why")
$v$ pražské Galerii U Řečických.ID (=in the Prague gallery "U Řečických")
starobylé písně ze Sušilovy sbirky Vandrovali. I D hudci (=old songs from Sušil's collection "Vandrovali hudci")
publikace Začínáme. ID podnikat. (=publication Introduction to business).
slovo mlčet.ID (=lit. word to_be_silent)
Figure 7.57. The ID functor

```
-
root
i
opera.enunc
f_DENOM
n.denot
fem.sg
0
Brundibár
f_ID
n.denot
anim.sg
```

opera Brundibár

### 7.10.3.1. Borderline cases with the functor ID

Border with the functor FPHR. For more on the border between identifying and foreign-language expressions see Section 8.8.2.1, "Specific rules for certain types of proper nouns".

Border with the functor RSTR. ID modifications can get very close to RSTR modifications (mésto Bratislava.ID (=city of Bratislava) vs. kamarád.RSTR John (=(my) friend John)). In such cases it is important whether the modification has regular inflected forms or not and also what is the nature of the given entity (person vs. thing). For more precise rules see Section 6.11.4, "Dependency relations in noun phrases (two nouns in the same form)".

Borders with other functors (especially with the functor APP). The functor ID also borders on other functors in cases with the explicative genitive (trest smrti.ID (=death sentence)). For more on this see Section 8.8.1, "Basic rules for the annotation of identifying expressions".

### 7.10.4. MAT

Definition of the functor MAT
The functor MAT (material, partitive) is a functor for an adnominal argument denoting the content (people, things, substance etc.) of a container expressed by the governing noun.

The MAT modifications is an adnominal modification, defined semantically: it expresses the content of a container. Nouns with the container meaning are (semantic) nouns expressing the degree, amount, number or volume of the thing in the container (people, things, materials etc.). These are especially:

- nouns denoting containers in a very broad sense.

Examples:
sklenice piva.MAT (=glass of bier) Fig. 7.58
košik hub.MAT (=basket of mushrooms)
plný bazén vody.MAT (=pool full of water)
pytlik bonbónư.MAT (=sachet of candy)

- nouns denoting fractions.

Examples:
polovina lidi. MAT (=half of the people)
čtvrt miliónu.MAT (=lit. quarter (of) million)
většina sportovců.MAT (=most of the sportsmen)

- nouns and numerals denoting groups, sets, collections, portions etc.

Examples:
skupina lidí.MAT (=group of people)
dvojice veslařu.MAT (=couple of rowers)
stádo krav.MAT (=herd of cows)
baleni másla.MAT (=package of butter)
sada nožư.MAT (=set of knives)
dvě dávky paralenu.MAT (=two doses of paracetamol)
jedna porce zmrzliny.MAT (=one portion of ice cream)
blok hitů.MAT (=block of hits)

- numerals with the meaning of a container.

For details see Section 8.10.1.2, "Numerals with the meaning of a "container"".
Examples:
tisic korun.MAT (=one thousand crowns)
milióny židů.MAT (=millons of Jews)

- some other nouns and expressions (denoting esp. number or amount of something).

Examples:
deset procent obyvatel.MAT (=ten percent of population).
počet akcií.MAT (=number of stocks)
dostatek financí.MAT (=abundance of finance)
množství škodlivých látek.MAT (=amount of harmful substances)
součást programu.MAT (=part of the programme)
část Némecka.MAT (=part of Germany)

Valency. The modification with the functor MAT is an adnominal argument, either optional or obligatory. For more on this see Section 6.2.3.2.4.8, "Valency frames of nouns with the "container" meaning".

Forms. The basic form of modifications with the functor MAT is a noun in the genitive:

## - noun in a non-prepositional case form.

The most common forms:
genitive balik papiru (=package of paper)

NB! With some numeral expressions, the form of the modification can be the same as the case of the numeral (e.g.: k prvním dvěma stům došlým vozům.MAT ( $=$ to the first two hundred of received cars.DAT), na tisici stránkách.MAT (=on the thousand of pages.LOC), po půl roce.MAT (=after half a year.LOC)).

Figure 7.58. The MAT functor

sklenice piva (=lit. glass (of) bier)

### 7.10.4.1. Borderline cases with the functor MAT

Border with the functor PAT. The functor MAT borders on the Patient. For more on this see Section 6.2.3.2.3.3, "Borderline between the Patient and the MAT and APP functors".

Border with the functor APP. The functor MAT can border on the functor APP with certain nouns. For more on this see Section 7.10.1.1, "Borderline cases with the functor APP".

### 7.10.5. RSTR

Definition of the functor RSTR

The functor RSTR is a functor for a free modification further specifying the governing noun. The RSTR functor is assigned to such adnominal modifications that neither meet the conditions for being considered adverbal modifications nor do they belong among other (more clearly defined) adnominal modifications.

The functor RSTR is the least specific adnominal functor. We assign this functor to such adnominal modifications to which it would not be natural to assign a verbal functor and which do not fulfil the semantic requirements of other adnominal functors.
!!! The original plan to distinguish restrictive and descriptive adnominal modifications has been abandoned. Both types of modification are assigned the functor RSTR.

Valency. The RSTR modification is always a non-valency modification.
Forms. The basic forms of modifications with the functor RSTR are:

- agreeing form of an adjective.

Example:
drsné.RSTR počasí (=rough weather) Fig. 7.59
po mozkové.RSTR mrtvici (=after a cerebral apoplexy)
proti destruktivnimu.RSTR zpuisobu hry (=against the destructive way of playing)
sedicí. RSTR žena (=a sitting woman)
NB! Also numeral expressions with the function of an attribute belong here as well (for details see Section 8.10.1.1, "Numerals with the role of an attribute (RSTR)"). E.g.:
několik.RSTR měsiců (=a few months)
pět.RSTR dětí (=five children)
dvojí.RSTR státní občanství (=double nationality)
vice. RSTR peněz (=more money)

- possessive adjective.

Example:
Karlova.RSTR univerzita (=Charles University)
papinưv. RSTR hrnec (=Papin's pot)

## - agreeing form of a noun.

Example:
Karel.RSTR Novák (=Karel Novák)
rozhodčí. RSTR Severýn (=the referee Severyn)
Prostřelil libereckého brankáře.RSTR Maiera (=he shot through the Liberec goalman Maier)
$v$ Praze - Dejvicich.RSTR (=in Prague - Dejvice)
do města Prahy.RSTR (=to the city of Prague)

- noun in a non-prepositional case form.

The most common forms:
genitive kapacita 200 mist (=the capacity of 200 places); ve výši asi 30 miliard korun (=in the amount of 30 billions of Crowns); míra nezaměstnanosti 2,8 procenta (=the rate of unemployment of 2,8 percent)

- prepositional phrase.

The most common forms:

| $\mathrm{k}+3$ | doklady k favoritu (=the documents for Skoda Favorit) |
| :--- | :--- |
| na+4 | konve na mléko (=milk cans); jízdenku na vlak (=train ticket) |
| na+6 | výrobní linka na bázi nové technologie ( $=$ an assembly line based on the new techno- <br> logy) |
| $\mathrm{o}+6$ | lod'o výtlaku 9700 tun (=a ship with shipload 9700 tons) |
| po+6 | propast po berlinské zdi (=a gap after the Berlin wall); stopy po chybných rozhod- <br> nutích ( $=$-the traces after the wrong decisions) |
| pod+7 | zóny pod kontrolou UNPROFOR (=zones under the control of UNPROFOR) |


| $\mathrm{s}+7$ | zájezd se sportovním programem (=a trip with a sports programme) |
| :--- | :--- |
| ve formě+2 | vśhra ve formě zájezdu (=a prize in the form of a trip) |
| $\mathrm{v}+6$ | civilizace ve dnešní podobě (=civilization in today's form); plavkyně v počtu osmi <br> (=lit. swimmers in number (of) eight) |
| v podobě +2 | bariéry v podobé státni správy (=the barriers in the form of state administration) |
| $\mathrm{z}+2$ | daně z přidané hodnoty (=value added tax) |
| $\mathrm{za}+4$ | škoda za 171 000 korun (=the loss of 171 000 Crowns) |

- relative clause.

For more on dependent relative clauses see Section 6.5, "Dependent verbal clauses".
Example:
Udeřil i toho, kdo si to nezasloužil.RSTR (=He hit also the one who did not deserve it.)
The RSTR functor is also assigned to some dependent clauses introduced by the subordinating conjunction že. Example:

Di̊sledkem neuspokojivě řešené dnešní situace ve vztahu $k$ minulosti je také fakt, že se vytvořily.RSTR dvě výrazně oddělené názorové skupiny. (=The result of the unsatisfactorily resolved present situation in relation to the past is also the fact, that two groups were formed with dramatically different opinions.)

NB! The RSTR functor is also assigned to modifications dependent on certain proper nouns and names (for more see Section 8.8.2.1, "Specific rules for certain types of proper nouns"). Example:

Jablonec nad Nisou.RSTR (=Jablonec nad Nisou)
náměstí Miru.RSTR (=the Peace square)
Karlův.RSTR most (=Charles Bridge)
NB! The RSTR functor is also used when representing certain specific structures like addresses, laws and public notices; see Section 8.12.1, "Identification of statutes and regulations" and Section 8.12.2, "Addresses").

Figure 7.59. The RSTR functor

```
O
počasí.enunc
f_DENOM
n.denot
neut.sg
```

drsné počasí (=lit. rough weather)

### 7.10.5.1. Borderline cases with the functor RSTR

The functor RSTR is the least specific functor. We assign it in those cases when the semantics of the modification is not very specific, therefore, there are a number of borderline cases.

Border with the functor ID. The RSTR modification can get very close to the ID modification. In such cases it is important whether the given modification has regular inflected forms and also what is the nature of the given entity (person vs. thing). For more precise rules see Section 6.11.4, "Dependency relations in noun phrases (two nouns in the same form)". Compare:

- město Bratislava.ID (=the city of Bratislava.NOM)

Jedeme do města Bratislavy.RSTR (=We drive to the city of Bratislava.GEN)

- město Groznyj. ID (=the city of Groznyj)

Jedeme do města Groznyj. ID (=We drive to the city of Groznyj.)

- kamarád.RSTR Jan (=(my) friend Jan)
kamarád.RSTR John (=(my) friend John)
Border with the functor INTF. The functor RSTR can get close to the functor INTF, especially in those cases, where the modification is expressed by the pronoun ten (=the_one) (or on (=he)). For more on this see Section 7.7.2.1, "Borderline cases with the INTF functor".

Borders with the functors AUTH and APP. The functor RSTR borders on the adnominal functors AUTH and APP (in cases like: Karlova.RSTR knizzka (=Charles' book) vs. Nezvalovy. AUTH básně (=Nezval's poems)). For more on this see Section 7.10.2.1, "Borderline cases with the functor AUTH".

Borders with adverbal functors. The functor RSTR borders on a number of other functors, mainly those of adverbal modifications - especially in those cases in which the modification is expressed by a prepositional phrase. No clear rules for determining the functor has been established so far. Generally, it can be said that the RSTR functor is assigned if it is not possible to assign a more specific functor.

### 7.11. Functor for the predicative complement (COMPL)

Due to the special properties of predicative complements, which cannot be attributed to any other adjuncts, we discuss this functor separately. The functor assigned to predicative complements has the value COMPL.

Definition of the functor COMPL
The functor COMPL (complement) is a functor for predicative complements (i.e. optional adjuncts with a dual semantic relation).

For details on predicative complements see Section 6.10, "Predicative complement (dual dependency)".

Forms. A predicative complement can be expressed by:

- noun or adjective: noun, adjective, numeral or pronoun of the nominal or adjectival nature.

Example:
Hosté odcházeli spokojeni.COMPL (=The guests were leaving satisfied.) Fig. 7.60
See Section 6.10.1, "Predicative complement expressed by a noun".

- non-finite verb form: participle, transgressive, infinitive.

Example:
Hráči odcházeli ze hřišté nepřemoženi.COMPL (=The players were leaving the field undefeated.) Fig. 7.61

See Section 6.10.2, "Predicative complement expressed by a non-finite verb form".

- dependent clause.

Example:
Sledoval ho, jak se chová.COMPL k mladšim spolužákům. (=He watched him how he behaved to the younger classmates.) Fig. 7.62

See Section 6.10.3, "Predicative complement expressed by a dependent clause".

Figure 7.60. The COMPL functor


Hosté odcházeli spokojeni. (=lit. Guests were_leaving satisfied.)
Figure 7.61. The COMPL functor


Hráči odcházeli ze hřiště nepřemoženi. (=lit. Players were_leaving from field undefeated.)

Figure 7.62. The COMPL functor


Sledoval ho, jak se chová k mladšim spolužákům. (=lit. (He) watched him how REFL (he) behaves to younger classmates.)

### 7.11.1. Borderline cases with the functor COMPL

Borders with arguments and other adjuncts. It is necessary to distinguish the predicative complement especially from the following two cases, which are not taken to be predicative complements: valency modifications with dual semantic dependency and adjuncts with ambiguous dependency relations. For more on this see Section 6.10, "Predicative complement (dual dependency)".

Functors bordering as the result of the multifunctional conjunction "jako". The functor COMPL can border on the functor for comparison (CPR; see Section 7.6.2, "CPR"), and even on functors for paratactic structures - the functors CONJ (see Section 7.12.1.3, "CONJ") and APPS (see Section 7.12.2, "Functor for apposition (APPS)"). The border, often very unclear, is caused by the multi-functionality of the conjunction jako ( $=a s$ ) used for representing all the functors mentioned. For more details see Section 8.17.4, "The conjunctions "než" and "jako"".

### 7.12. Functors expressing the relations between the members of paratactic structures

Functors expressing the relations between the members of paratactic structures form a special class of functors that do not conform to the basic definition of a functor (see Chapter 7, Functors and subfunctors). These functors do not express a kind of dependency; they rather capture the relation between members of paratactic structures (either clauses or modifications).

They are functors that are assigned to the root nodes of paratactic structures (see Section 6.6.1, "Representing parataxis in a tectogrammatical tree").

## List of the functors for coordination

- ADVS
- CONFR
- CONJ
- CONTRA
- CSQ
- DISJ
- GRAD
- REAS


## Functor for apposition

- APPS


## Functor for mathematical operations and intervals

- OPER

The functors above are used for connecting clauses as well as individual modifications - with the exception of the functors CONTRA and OPER, which are only used for connecting individual modifications, and with the exception of the CONFR functor, which is only used for connecting clauses.

Apart from the functors assigned directly to the roots, there is also a specific functor CM, which is assigned to nodes representing conjunction modifiers.

## Functor for conjunction modifiers

- CM


### 7.12.1. Functors for coordination

### 7.12.1.1. ADVS

Definition of the ADVS functor

The ADVS (adversative) functor is a functor assigned to the root node of such a paratactic structure that connects two conflicting propositions (modifications).

Basic connectives. The basic (coordinating) connectives with the meaning of the ADVS functor are:

| ale | Vypadalo to, že bude hezky, ale začalo pršet. (=The weather looked nice but then <br> it started raining) |
| :--- | :--- |
| avšak <br> (t_lemma=však) | Obce chtějí podnítit cestovní ruch, avšak zároveň chránit citlivou ekologickou <br> strukturu v oblasti. (=They want to support tourism, but they also want to protect <br> the environment) |
| jenže | Měl bych se vice věnovat dětem, jenže na to nemám čas. (=I should give more <br> time to my children but I don't have enough time) |


| leč | Naslouchal pozorně, leč nic se neozvalo. (=He was listening carefully but he <br> didn't hear anything) |
| :--- | :--- |
| nicméně | Řekl, že přijde, nicméně nepřišel. (=He had promised to come, however, he didn't <br> come) |
| nýbrž | Sekulární donátor už není vlastnikem kostela, nýbrž pouhým patronem. (=The <br> donor is not the owner of the church, only its patron) |
| ovšem | Může tak scenerii zpestřovat, nikoliv ovšem vytváret. (=It can improve the scenery, <br> but it cannot create it) |
| však | Tento dům jí byl vrácen, obžaloba však tvrdí, že jej ziskala podvodem. (=She got <br> the house back but the prosecutor says...) |

Some other connectives. There are also other connectives with the ADVS meaning; e.g.:

| a | V dalšich řádcich nebude odkaz na žádný zákon, a přesto po̊jde o záležitost nanejvýš aktuální. <br> (=In the following, there is no reference to a law, and still the topic is highly relevant) |
| :--- | :--- |
| aniž | Dostal odměnu, aniž se o ni zasloužil. (=He was rewarded without deserving it) |

punctuation Přijel do Prahy, nikoli do Brna. (=He came to Praha, not to Brno)
NB! The connective aniž negates the proposition in the second clause, therefore, a node for the negation (a node with the t-lemma substitute \#Neg and the CM functor) is inserted to the clause. See also Section 6.5.4.1.1, "Constructions with the connectives "což", "přičemž", "načež", "pročež", "začež", "aniž"".

Conjunction modifiers. Coordinating conjunctions are often combined with other expressions that modify their meaning (see Section 8.16.1.2, "Conjunction modifiers"). Typical conjunction modifiers cooccuring with the ADVS functor are:

- restrictors.

For example: vůbec, jen, zejména etc.
Example:
Koupil všechno možné, ale.ADVS vůbec.CM nekoupil to důležité. (=He bought all kinds of things but he didn't buy the important ones at all)

## - negating conjunction modifiers.

For example: ne, nikoli etc.
Example:
Koupil chleba, ale.ADVS ne.CM mléko. (=He bought bread but not milk)

- other conjunction modifiers.

| přece | Vypadalo to, že bude hezky, a přece začalo pršet. (=The weather looked nice, and still it <br> started raining) |
| :--- | :--- |
| přesto | O výrobek by byl zájem, přesto však nemáme výrobce. (=People would be interested in <br> the product but still there is no producer) |
| sice | O tom se sice občas piše v novinách, ale ve skutečnosti tomu tak nebývá. (=They write <br> about it in newspapers but in reality it is different) |


| zato | Já jsem ji nepoznal, ale zato ty jsiji znal velice dobře. (=I never met her but then you knew |
| :--- | :--- | her very well)

NB! The conjunction modifier sice can be found with appositions, too. For more on that see Section 7.12.2.1, "Borderline cases with the APPS functor".

Contextualizers. Coordinating conjunctions can be combined with other conjunction modifiers, too, esp. with so called contextualizers.

Examples:
O výrobek by byl zájem, přesto.CM však.ADVS ještě.CM nemáme výrobce. (=People would be interested in the product but still there is no producer yet) Fig. 7.63

Nebyl to ani. CM Petr, ale.ADVS též.CM ani.CM Pavel. (=It wasn't Petr but it wasn't Pavel either)
Figure 7.63. The ADVS functor


O výrobek byl zájem, přesto však ještě nemáme výrobce. (=lit. In product was interest, still though yet (we) not_have producer)

### 7.12.1.1.1. Borderline cases with the ADVS functor

Borders with other functors for coordination (esp. CONJ). A number of coordinating connectives express primarily the meaning of the ADVS functor. The ADVS functor gets closer to the meanings of other functors (esp. CONJ; see Section 7.12.1.3, "CONJ") if an ambiguous connective (e.g. aniz) is used, or if a connective reserved for a different type of paratactic structures is used (e.g. a), or if expressed asyndetically.

If an ambiguous connective is used, it is necessary to consider the relation between the connected propositions (modifications) carefully. Cf.:

- Dostal odměnu, aniž.ADVS (= ale ne) se o ni zasloužil (=He was rewarded without deserving it).
- Šel, aniž.CONJ (= přičemž ne) viděl lidi kolem sebe. (=He was walking without seeing the people around)

If a connective reserved for a different meaning is used, it only gets the ADVS functor if it is clear that it carries the meaning; this can be made clear e.g. by appropriate conjunction modifiers. If it is not quite clear that the ADVS functor should be assigned, the root node of the paratactic structure gets the functor that is assigned to the connective by default. For example, the conjunction $a$ (although primarily expressing the CONJ meaning) can also be assigned the ADVS functor if it connects two conflicting propositions (modifications). Cf.:

- Slibil, že přijde, $\underline{\text { a }}$.CONJ přišel (=He had promised to come and he did come).

- Slibil, že přijde, a. ADVS přece .CM nepřišel. (=He had promised to come and still he didn't come)

A similar situation arises when the clauses or modifications are connected asyndetically. Asyndetic connection is used usually with the CONJ interpretation; however, if two conflicting propositions (modifications) are connected asyndetically, the root node of such a paratactic structure gets the ADVS functor. Cf.:

- Přijel do Prahy, [\#Comma.ADVS] nikoli.CM do Brna (=He came to Praha, not to Brno).

Border with the CONFR functor. Semantically, the ADVS functor is very close to the CONFR functor (see Section 7.12.1.2, "CONFR"). For more on this border see Section 7.12.1.2.1, "Borderline cases with the CONFR functor".

Border with the GRAD functor. Conjunctions used primarily for expressing the ADVS meaning (ale, nýbrž) are also used for gradation (GRAD; see Section 7.12.1.7, "GRAD"). For more on this see Section 7.12.1.7.1, "Borderline cases with the GRAD functor".

Border with the CNCS functor. Semantically, the ADVS functor is very close to the CNCS functor, too (see Section 7.5.3, "CNCS"). For the relation between the ADVS and CNCS functors, see Section 7.5.3.1, "Borderline cases with CNCS the functor ".

### 7.12.1.2. CONFR

Definition of the CONFR functor
The CONFR (confrontation) functor is assigned to the root nodes of such paratactic structures in which two different, often contrasting, propositions are confronted.

Comparison based on confrontation means that one fact (figure) stands out whereas another fact serves as a background. CONFR only concerns clausal coordination. The coordinated clauses are typically parallel in their syntactic structure.

Basic connectives. The basic (coordinating) connective with the meaning of the CONFR functor is:

| kdežto | Bristol je v Anglii, kdežto Glasgow je ve Skotsku. (Bristol is in England, whereas Glasgow is <br> in Scotland) |
| :--- | :--- |

Some other connectives. There are also other connectives with the CONFR meaning; e.g.:
a Svobodní mládenci mívají nepořádek kolem sebe, a ženatí naopak mívají nepořádek v duši. (=Bachelors often have a mess all around them and married men, on the other hand, have a mess in their souls)
ale Svobodní mládenci mívají nepořádek kolem sebe, ale ženatí naopak mívají nepořádek v duši. (=Bachelors often have a mess all around them but married men, on the other hand, have a mess in their souls)

| punctuation | Kontrolní odběry před velkými sportovnimi událostmi se už dávno dĕlat nesmějí, naopak <br> mimosoutěni odbéry ano. (=Control samples before big competitions cannot be taken <br> any more, the ones not taken in competitions, on the other hand, can) |
| :--- | :--- |

Conjunction modifiers. Coordinating conjunctions are often combined with other expressions that modify their meaning (see Section 8.16.1.2, "Conjunction modifiers"). A typical conjunction modifier cooccuring with the CONFR functor is:
naopak Kontrolní odběry před velkými sportovnimi událostmi se už dávno dělat nesmějí, naopak mimosoutěžní odběry ano. (=Control samples before big competitions cannot be taken any more, the ones not taken in competitions, on the other hand, can)

## Examples:

Svobodní mládenci mívají nepořádek kolem sebe, kdežto.ADVS ženatí naopak.CM mivají nepořádek v duši. (=Bachelors often have a mess all around them whereas married men, on the other hand, have a mess in their souls) Fig. 7.64

Figure 7.64. The CONFR functor


Svobodní mládenci mívají nepořádek kolem sebe, kdežto ženatí naopak mivají nepořádek v duši. (=lit. Bachelors - have mess around themselves whereas married on_the_contrary have mess in soul)

### 7.12.1.2.1. Borderline cases with the CONFR functor

Border with the ADVS functor. Semantically, the CONFR functor is very close to the ADVS functor (see Section 7.12.1.1, "ADVS"). Confrontation (CONFR) is involved whenever two facts are put into a sharp contrast. The clauses are typically parallel in their syntactic structure; moreover, it is always a clausal (not constituent) coordination. An adversative relation (ADVS) is involved if the second proposition (modification) contradicts the expectation following from the first proposition (modification). Sometimes, the borderline between these two meanings is unclear and difficult to find; for the annotation, it is useful to rely on the used connective. A paratactic connection with the conjunction ale is analyzed as having the ADVS meaning, whereas a paratactic connection realized by kdežto is analyzed as having the CONFR meaning. Cf.:

- Bristol je v Anglii, kdežto.CONFR Glasgow je ve Skotsku. (=Bristol is in England, whereas Glasgow is in Scotland)
- Bristol je v Anglii, ale.ADVS Glasgow je ve Skotsku. (=Bristol is in England but Glasgow is in Scotland)

Border with the CONTRD and COND functors. Confrontation can also be expressed by means of the subordinating conjunction zatimco (CONTRD; see Section 7.9.2, "CONTRD"). Confrontation is sometimes also interpreted in sentences with subordinating conjunctions jestlize, -li and $k d y z ̌$, too (COND; see Section 7.5.4, "COND"). For more on the border between the functors CONFR, CONTRD and COND see Section 7.9.2.1, "Borderline cases with the functor CONTRD" and Section 6.5.4.2, "False dependent conjunctional clauses".

### 7.12.1.3. CONJ

Definition of the CONJ functor
The CONJ (conjuction) functor is assigned to the root nodes of such paratactic structures in which two or more propositions (modifications) are simply conjoined.

Basic connectives. The basic (coordinating) connectives with the meaning of the CONJ functor are:

| a | Mezi smysly patří zrak a sluch a hmat. (=Eyesight and hearing and touch belong to the <br> senses) |
| :--- | :--- |
| i | žáci i žákyně (=male as well as female pupils) |
| jak - tak | Vyniká jak svědomitostí, tak houževnatostí. (=She stands out due to her thoroughness, as <br> well as her stringiness) |


| asyndetic connection | Kreslíme tužkou, malujeme pastelkami. (=We draw with a pencil, colored <br> pencils) |
| :--- | :--- |

Some other connectives. There are also other connectives expressing the CONJ meaning; e.g.:

| ani | Ve Francii není ani vítézi̊ ani poražených. (=There are neither winners, nor defeated in <br> France) |
| :--- | :--- |
| aniž | Šel, aniž by to viděl. (=He was walking without seeing it) |
| což | Firma nechce přijímat žádné další zaměstnance, což je pochopitelné. (=The company doesn't <br> want to accept any new employees, which is understandable) |
| či | V minulé sezóně spolupracoval s touto firmou či s agenturnim souborem Brak. (=Last season <br> I cooperated with this company or with Brak) |
| jako | Ochutnal Plzeň, Krušovice, stejně jako Budvar. (=He tried Plzeň, Krušovice, as well as <br> Budvar) |
| jakož | Petr, Pavel, jakož i Honza (=Petr, Pavel as well as Honza) |
| načež | Vyšel z domu, načež začala bouřka. (=He left the house whereupon the storm broke out) |
| nebo | Posilají tam nemocné nebo raněné. (=They send the ill or injured ones there) |
| přičemž | Šel, přičemž neviděl. (=He was walking and didn't see anything) |

NB! The connective aniž negates the predicate in the second clause (Šel, aniž by to viděl. (=He was walking without seeing $i t)=$ Šel a nevidél to. (=He was walking and didn't see it)); a node with the $\mathrm{t}-$ lemma substitute \#Neg and the CM functor is inserted into the subtree for the second clause. See also Section 6.5.4.1.1, "Constructions with the connectives "což", "pričemž", "načež", "pročež", "začež", "aniž"".

Example:
Šel, aniž.CONJ by to $\{\# \mathrm{Ne}$.CM $\}$ viděl. (=He was walking without seeing it) Fig. 7.65
NB! Also some constructions with the connective což are analyzed by means of the CONJ functor (see also Section 6.5.4.1.1, "Constructions with the connectives "což", "přičemž", "načež", "pročež", "začež", "aniž"").

Conjunction modifiers. Coordinating conjunctions are often combined with other expressions that modify their meaning (see Section 8.16.1.2, "Conjunction modifiers"). Typical conjunction modifiers with the CONJ functor are stejně and podobně (modifying jako). Other conjunction modifiers cooccuring with the CONJ functor are e.g. jednak and respektive; however, also other types of relation than CONJ between the connected propositions (modifications) are possible with these conjunction modifiers.

| podobně | Ochutnal Plzeň, Krušovice, podobně jako Budvar. (=He tried Plzeň, Krušovice and similarly <br> Budvar) |
| :--- | :--- |
| stejně | Ochutnal Plzeň, Krušovice, stejně jako Budvar. (=He tried Plzeň, Krušovice, as well as <br> Budvar) |


| jednak | Na táboře se děti jednak zotavily, jednak se naučily mnoha novým věcem. (=The children <br> recovered and learned a lot of new stuff as well) |
| :--- | :--- |
| respektive | Letos v prvním čtvrtletí činily krátkodobé sazby v USA 3.0 a dlouhodobé 6.3 procenta, v <br> Némecku 5.8, respektive 5.6\%. (=...in Germany it was 5.8, or rather 5.6\%) |

NB! The conjunction modifier jednak cooccurs primarily with CONJ; however, if the proposition of the second clause is graded w.r.t. the first clause (esp. if this is made clear by an appropriate restrictor) the root node of the paratactic structure can also be assigned the GRAD functor (see also Section 7.12.1.7, "GRAD").

NB! The conjunction modifier respektive has three meanings. It can be also used with the DISJ functor or with appositions. See also Section 7.12.2.1, "Borderline cases with the APPS functor".

Contextualizers. Coordinating conjunctions (with the CONJ functor) can be combined with other conjunction modifiers, too, esp. with so called contextualizers.

Examples:
 sanity and further whether he's not dangerous)

Kreslime tužkou, [\#Comma.CONJ] také.CM malujeme pastelkami. (=We draw with a pencil and also with colored pencils)

Kreslíme tužkou a.CONJ $k$ tomu.CM ještě.CM malujeme pastelkami. (=We draw with a pencil and moreover with colored pencils)

Vidím dnes potřebu určité liberalizace živnostenského zákona á.CONJ pak.CM kompletizaci právního rámce. (=There is a need of liberalization and then..)

Okamžitě mě odvezli do Bartolomějské $\underline{\text { a }}$.CON D potom. CM ještě.CM několikrát do Konviktské a Ruzyně. (=First... and then also...)

Figure 7.65. The CONJ functor


Šel, aniž by to viděl. (=lit. (He) went and_not AUX it saw)

### 7.12.1.3.1. Borderline cases with the CONJ functor

Borders with other functors for coordination. The connectives used for simple conjunction are also used for expressing other kinds of relation within paratactic structures (esp. when combined with conjunction modifiers). In case of asyndetic connection and when the conjunctions $a, i$, ani are used, it is necessary to decide what kind of relation there is between the connected propositions (modifications). The CONJ functor is the default; a different functor is assigned if it is clear that some other relation than simple conjunction is involved (it is usually supported by the use of certain conjunction modifiers).

The CONJ functor gets close to other functors for connecting propositions (modifications) in paratactic structures also in those cases when an ambiguous connective or a connective reserved for another meaning is used. If an ambiguous connective is used (e.g. aniz) it is necessary to consider the relation between the two propositions carefully (see Section 7.12.1.1.1, "Borderline cases with the ADVS functor").

In cases in which a connective reserved for a different meaning (nebo) is used, the CONJ functor is only assigned if it is clear that it really is a case of simple conjunction. If it is not quite clear that the CONJ functor should be assigned, the root node of the paratactic structure gets the functor that is assigned to the connective by default.

Border with the ADVS functor. For the borderline cases between the CONJ and ADVS functors (esp. the conjunction $a$ or punctuation), see Section 7.12.1.1.1, "Borderline cases with the ADVS functor".

Border with the CSQ functor. For the borderline cases between the CONJ and CSQ functors (esp. the conjunction $a$ and načež), see Section 7.12.1.5.1, "Borderline cases with the CSQ functor".

Border with the GRAD functor. For the borderline cases between the CONJ and GRAD functors (esp. the conjunction $a$, ani or punctuation), see Section 7.12.1.7.1, "Borderline cases with the GRAD functor".

Border with the DISJ functor. For the borderline cases between the CONJ and DIS J functors (esp. the conjunction nebo and či), see Section 7.12.1.6.1, "Borderline cases with the DISJ functor".

Border with the CONTRA functor. For the borderline cases between the CONJ and CONTRA functors (the use of a dash), see Section 7.12.1.4.1, "Borderline cases with the CONTRA functor".

Border with the APPS functor. The CONJ functor is semantically close to the functor for apposition, too, the APPS functor. See also Section 7.12.2.1, "Borderline cases with the APPS functor".

Functors bordering as the result of the multifunctional conjunction "jako". The CONJ functor can get very close to the APPS functor (see Section 7.12.2, "Functor for apposition (APPS)"), and even the CPR (see Section 7.6.2, "CPR") and COMPL (see Section 7.11, "Functor for the predicative complement (COMPL)") functors. This is caused by the fact that the conjunction jako carries the meaning of all these functors. For more details see Section 8.17.4, "The conjunctions "než" and "jako"".

### 7.12.1.4. CONTRA

Definition of the CONTRA functor
The CONTRA functor is assigned to the root nodes of such paratactic structures in which two equal entities (never propositions) are represented as fighting, opposing each other.

Forms. The meaning of the CONTRA functor is usually expressed by the prepositions kontra and versus. When two subjects are connected by means of these prepositions, this has the form of a paratactic structure: the root node of the paratactic structure is the node representing one of the prepositions. Often, just a dash is used in place of kontra or versus. If this is the case, the dash gets the CONTRA functor ( t _lemma=\#Dash) - it is the root node of the paratactic structure, then.

The most common forms are, then:

| kontra | akademie věd kontra vysoké školství (=Academy of Science contra universities) |
| :--- | :--- |
| versus | Bukač versus Hlinka očima Jana Horáka (=Bukač versus Hlinka) |

dash (t_lemma=\#Dash) utkání Rusko - Švédsko (=Russia - Sweden)
Examples:
Na veřejnosti je tato otázka vnímána jako spor Klaus versus.CONTRA Zieleniec. (=Klaus vs. Zieleniec) Fig. 7.66
utkání Sparta - [\#Dash.CONTRA] Slavia bylo zahájeno. (=the Sparta - Slavia match has started) Fig. 7.67

Figure 7.66. The CONTRA functor


Na veřejnosti je tato otázka vnimána jako spor Klaus versus Zieleniec. (=lit. In public is this issue perceived as conflict Klaus vs. Zieleniec)

Figure 7.67. The CONTRA functor


Utkání Sparta - Slavia bylo zahájeno. (=lit. Match Sparta - Slavia was started)

### 7.12.1.4.1. Borderline cases with the CONTRA functor

Borders with other functors (esp. CONJ). The CONTRA functor is only marginal. It has a very specific meaning, contained directly in the conjunctions kontra and versus. Apart from kontra and versus, the CONTRA functor is only assigned to a dash in similar constructions.

If - instead of kontra or versus - the conjunction $a$ is used in a similar context, the CONJ functor is to be assigned preferably (see Section 7.12.1.3, "CONJ"). If the conjunction $a$ is used, the meaning of two subjects fighting, opposing each other is never unambiguously implied. Cases with the preposition proti are analyzed by means of the functors for expressing dependency relations.

Cf:

- Utkáni Sparta versus. CONTRA Slavia skončilo 2 : 0.
- Utkání Sparta - [\#Dash.CONTRA] Slavia skončilo 2 : 0 .
- Utkání Sparta a . CONJ Slavia skončilo 2 : 0.
- Utkání Sparty proti Slavii.ADDR skončilo 2 : 0.


### 7.12.1.5. CSQ

Definition of the CSQ functor

The CSQ (consequence) functor is a functor assigned to the root node of such a paratactic structure that connects two propositions
(modifications) the second of which is interpreted as the consequence of the first one.

Basic (complex) connectives. The basic form of expressing the CSQ meaning is a connective consisting of the conjunction $a$ (or just punctuation) and a conjunction modifier typical for CSQ (see Section 8.16.1.2, "Conjunction modifiers").

Typical conjunction modifiers cooccuring with the CSQ functor are:

| proto | Pracoval nezodpovědně, a proto dostal výpověd'. (=His was irresponsible, therefore he was <br> fired) |
| :--- | :--- |
| tak | Měl jsem hlad, tak jsem si vzal koláč. (=I was hungry, so I ate a cake) |
| tedy | Je to utajeno, a tedy chráněno. (=It is a secret, hence it is protected) |
| tudiž | Byl nemocný, a tudiž nepřišel. (=He was sick so that's why he didn't come) |

NB! The conjunction modifiers tedy and tudiž can also modify a conjunction for apposition (see Section 7.12.2.1, "Borderline cases with the APPS functor").

Example:
Byl nemocný, [\#Comma.CSQ] tudiž.CM nepřišel. (=lit. (He) was ill, therefore not_came) Fig. 7.68
Some other connectives. There are also other connectives expressing the CSQ meaning; e.g.:

| čili | Vězně obvykle nevolají k telefonu, čili vám volat nemohla. (=They don't usually call prisoners <br> to telephone, so she couldn't call you) |
| :--- | :--- |
| jinak | Bylo to velmi důležité, jinak bych možná už nikdy do kokpitu nevlezl. (=It was very important, <br> otherwise I wouldn't get into the cockpit again) |
| načež | Špatně se učil, načež propadl u zkoušky. (=He didn't learn enough which is the reason why <br> he failed) |
| pročež | Neudělal jsem to, pročež se nemusíš zlobit. (=I didn't do it so you don't have to be angry) |
| takže | Potřebujete jen $1 / 4$ vody, takže sprcha vás stojí 0,46 Kč. (=You only need $1 / 4$ of the water so <br> a shower costs $0.46 ~ K c)$ |

For more on načež and pročež see Section 6.5.4.1.1, "Constructions with the connectives "což", "přičemž", "načež", "pročež", "začež", "aniž"". For more on takže see Section 6.5.4.2.1, "Constructions with the connectives "kdežto" and "takže"".

Contextualizers. Coordinating conjunctions (with the CSQ functor) can be combined with other conjunction modifiers, too, esp. with so called contextualizers.

Examples:
Pracoval nezodpovědně, $\underline{\text { a }}$. CSQ proto. CM také.CM dostal výpověd'. (=He was irresponsible and therefore he was also fired)

Pracoval nezodpovědně, a. .CSQ zvlástě.CM proto.CM také.CM dostal výpověd'. (=He was irresponsible and especially for that reason he was also fired)

Pracoval nezodpovědně, a. CSQ tak.CM tedy.CM také.CM dostal výpověd'. (=He was irresponsible and so he was also fired)

Figure 7.68. The CSQ functor


Byl nemocný, tudiž nepřišel. (=lit. (He) was ill, therefore not_came)

### 7.12.1.5.1. Borderline cases with the CSQ functor

Borders with other functors for coordination (esp. CONJ). A number of complex (coordinating) connectives express the meaning of the CSQ functor unambiguously. The CSQ functor gets closer to the meanings of other functors (esp. CONJ; see Section 7.12.1.3, "CONJ") if an ambiguous connective (e.g. načež) is used, or if a connective reserved for a different type of paratactic structures is used (e.g. a).

If an ambiguous connective is used, it is necessary to consider the relation between the connected propositions (modifications) carefully. Cf.:

- Špatně se učil, načež.CSQ propadl u zkoušky. (=He wasn't learning properly, which is why he failed at the exam)
- Vyšel z domu, načež.CONJ začala bouřka. (=He left the house whereupon the storm broke out)

If a connective reserved for a different meaning is used, it only gets the CSQ functor if it is clear that it really carries the meaning; this can be made clear e.g. by appropriate conjunction modifiers. If it is not quite clear that the CSQ functor should be assigned, the root node of the paratactic structure gets the functor that is assigned to the connective by default. For example, the conjunction $a$ (although primarily having the CONJ meaning) can be assigned the CSQ functor if it connects two propositions (modifications) the second one of which is a consequence of the first; cf.:

- Přitvrdíme, a. CSQ (v důsledku toho) budeme do roka v EU (=We'll try harder and (as a consequence) we'll be in EU in one year).

Border with the REAS functor. For the relation to the REAS functor see Section 7.12.1.8.1, "Borderline cases with the REAS functor".

Border with the APPS functor. The conjunction modifiers tedy and tudizz can also modify a conjunction for apposition. See also Section 7.12.2.1, "Borderline cases with the APPS functor".

Border with the APPS and DISJ functors. For more on the conjunction jinak (which is used for the DISJ, CSQ and APPS functors) see Section 7.12.2.1, "Borderline cases with the APPS functor".

### 7.12.1.6. DISJ

Definition of the DISJ functor

The DISJ (disjunction) functor is a functor assigned to the root nodes of such paratactic structures in which two propositions (modifications) are connected which cannot be true simultaneously or which can, in addition to the possibility that only one of them is true.

In case of strong disjunction (only one of the propositions can be true), the DISJ meaning is carried especially by the following pairs of conjunctions: bud' - nebo, bud' - či, or simply by nebo, či. In case of weak disjunction, apart from the conjunctions like nebo, či, a nebo, also conjunction modifiers like eventuálně, popřípadě, případně, respektive are often used, which makes the disjunction weaker.

Basic connectives. The basic (coordinating) connectives with the meaning of the DISJ functor are:

| anebo | Nejraději loví psy, at' už zatoulané, anebo ty s obojkem a známkou. (=They prefer to hunt dogs, either stray or those with dog collars) |
| :---: | :---: |
| at' - či | at' vitaný, či nevitaný (=welcome or not) |
| at' - nebo | Přenos vzduchem, at'jde o televizní signál, nebo o digitální data, zajištujuí radiokomunikace. (=The air transimission, if it is the TV signal or digital data,...) |
| bud' - anebo <br> ( t_lemma=bud'nebo) | Ve Slavii jsou bud' mladí hráči, anebo ti, kteří dostávali přiležitost sporadicky. (In Slavia, there are either young players or those who haven't had much opportunity to play) |
| bud' - či | Vysloví se bud' pro, či proti návrhu. (=They will be either for or against the proposal) |
| bud' - nebo | Vysloví se bud' pro, nebo proti návrhu. (=They will be either for or against the proposal) |
| bud'to - anebo <br> ( t_lemma=bud’nebo) | Nadšenci pro akustické brnkání v přirodě se mohou pohroužit bud'to do brožury Folk-bluesová kytara \& harmonika, anebo do Toulavé country kytary. (=...either Folk-bluesová kytara or Toulavá country kytara) |
| $\begin{aligned} & \text { bud'to - či } \\ & \left(\mathrm{t} \_\right. \text {lemma=bud'čci) } \end{aligned}$ | Němci mají bud'to špičkové jezdecké koně, či koně podprůměrné. (=Germans have either top quality, or rather bad horses) |
| bud'to - nebo <br> ( t_lemma=bud'nebo) | Firma by je bud’to mohla využívat sama, nebo je dále pronajímat jiným zájemcuim. (=The company could either use them or rent them) |
| či | Mají, či nemají pravdu? (=Are they right, or not?) |
| nebo | Mĕl dvě možnosti - nechat se předstihnout, nebo způsobit havárii. (=He had two possibilities - to be outrun, or to cause a crash) |

Some other connectives. There are also other connectives that can have the DISJ meaning; e.g.:

| a | Slovensko, a případně Mad'arsko (=Slovakia and possibly Hungary) |
| :--- | :--- |
| jinak | Hlavně se nebojte zariskovat, jinak dopadneme jako Sparta. (=Don't be afraid to take chances, <br> otherwise we'll end up like Sparta) |

punctuation Slovensko, připadně Mad’arsko (=Slovakia, possibly Hungary)
NB! If the connection is asyndetic or the conjunction $a$ is used, the DISJ meaning arises only if a conjunction modifier typical for this meaning is used.

Conjunction modifiers. Coordinating conjunctions are often combined with other expressions that modify their meaning (see Section 8.16.1.2, "Conjunction modifiers"). Typical conjunction modifiers cooccuring with the DISJ functor are:

## - restrictors.

For example: vůbec, jen, zejména etc.
Example:
Udělej to všechno, nebo.DIS J ien.CM to, co stihneš. (=Do it all, or just what you can manage to do)

## - other conjunction modifiers.

| eventuálně | Ti musí navíc přiložit daňové přiznání s dokladem o zaplacení daně, eventuálně peněžni <br> denik a výpis z obchodního rejstríku. (=They have to submit also their tax return, <br> possibly also...) |
| :--- | :--- |
| popřípadě | Na konzultaci musí přijít alespoň jeden z rodič̛̌, popřipadě alespoň někdo z rodiny. <br> (=At least one parent has to come, or at least a member of the family) |
| případně | Často se stane, že se obraz nevydraží, anebo připadně vydraží za cenu nižší, než na <br> jakou si prodejce myslí. (=It often happens that the painting is not sold or maybe it <br> is but the price is lower) |
| už | O žádných tajných zprávách nevědí nic ti, kdo je běžně utajují at' už v Dejvicich, nebo <br> v Pentagonu. (=They know nothing, if they are in Dejvice or Pentagon) |

> | respektive | prodávající, respektive kupující (=the ones who sell, or the ones who buy) |
| :--- | :--- |

NB! The conjunction modifier respektive has three meanings. It can be also used with the CONJ functor or with appositions. See also Section 7.12.2.1, "Borderline cases with the APPS functor".

Contextualizers. Coordinating conjunctions (with the DISJ functor) can be combined with other conjunction modifiers, too, esp. with so called contextualizers.

Examples:
Použijí Rakousko, [\#Comma.DISJ] případně.CM i..CM Španělsko. (=They are going to use Austria, possibly Spain, too) Fig. 7.69

To věc vyřeší (nebo.DIS J také. CM nevyřeší) pouze v daném konkrétním připadě. (=This will solve the problem (or maybe also not) only in the given case)

Nejdřive provedeme výstup vpravo do sedla na aklimatizaci $\underline{\text { a }}$. DIS J připadně.CM tam ị.CM připravíme nějakou sestupovou trasu s fixy, pro případ nějakých problémů. (=First we'll get to the saddle and possibly also prepare...)

A je snad zbytečné dodávat, jak to skončí, pokud obrázkům nerozumite alespoň tolik co prodávající, [\#Comma.DISJ] respektive.CM kupujíci. (=...if you don't understand the pictures at least as much as the seller, or rather the buyer)

Figure 7.69. The DISJ functor


Použijí Rakousko, připadně i Španělsko. (=lit. (They) will_use Austria, possibly also Spain)

### 7.12.1.6.1. Borderline cases with the DISJ functor

Border with the CONJ functor. In cases of weak disjunction, the DISJ functor sometimes gets quite close to the CONJ functor (see Section 7.12.1.3, "CONJ"). In those cases where the propositions (modifications) are not mutually exclusive but they rather refer to several compatible alternatives, the conjunctions primarily carrying the DISJ meaning (nebo and $\check{c i}$ ) are prefereably assigned the CONJ functor. These are cases in which the conjunction $a$ can also be used instead. Cf.:

- Posilají tam bud' nemocné, nebo.DISJ zdravé. (=They send either ill, or healthy people there)
- Posilají tam nemocné nebo. $\mathrm{CONJ}(=\mathrm{a})$ raněné. (=They send either ill, or (=and) injured people there)
- Arabsky se mluví v Maroku, v Alžirsku nebo (=a).CONJ v Sýrii. (=Arabian is spoken in Morocco, Algeria or (=and) Syria)

Borders with the APPS, CONJ and CSQ functors. For more on the conjunction jinak (the border between the DISJ, CSQ and APPS functors) and the conjunction modifier respektive (the border between the functors DISJ, CONJ and APPS) see Section 7.12.2.1, "Borderline cases with the APPS functor".

### 7.12.1.7. GRAD

Definition of the GRAD functor
The GRAD (gradation) functor is assigned to the root nodes of such paratactic structures in which every proposition (modification) makes a stronger claim than the previous one.

Only a limited set of coordinating conjunctions can express gradation directly, without any conjunction modifiers. These are:

| ani | Stát neposkytne na nákup bytů žádné slevy, ani žádnou jinou finanční pomoc. (The state will <br> not offer a discount, not even any other financial help) |
| :--- | :--- |
| natož | Nemůže se pohnout, natož vstát. (=He can't move, let alone get up) |

NB! Ani can also be a conjunction modifier, see Section 8.16.1.2, "Conjunction modifiers". The conjunction ani can also have the meaning of simple conjunction (after a negated verb). See also Section 7.12.1.7.1, "Borderline cases with the GRAD functor".

Basic connectives. The basic form used for expressing the GRAD meaning is a complex connective consisting of one of the basic conjunctions for CONJ or ADVS or just punctuation and a conjunction modifier (see Section 8.16.1.2, "Conjunction modifiers") that expresses the gradation.

The basic conjunctions forming the base of such complex connectives with the GRAD meaning are:

| a | Byl v tomto lidu oblíbený, a navic vynikal krásou. (=He was popular, moreover he was very <br> handsome) |
| :--- | :--- |
| ale | Věřím, že vytvoříme dobrou partu, která bude žít nejen tenisem a kvalifikací, ale posedí spolu <br> i večer. ( $=.$. for which not only tenis is important, but also...) |
| ba | Závod plán splnil, ba dokonce jej překročil. (=The factory fulfilled the plan; it even overfulfilled <br> it) |
| či | problém morální, či dokonce trestný (=ethical, or even legal problem) |
| nebo | Má podporu u voličúu hlásícich se kpolitickému středu, nebo dokonce k levici. (=He is supported <br> by the centrists, or even the leftists) |
| nýbrž | Nestavíme jen domy, nýbrž dokonce budujeme i dětská hřiště. (=Not only do we build houses, <br> we also build playgrounds) |

punctuation | Má podporu u volič̌̊ hlásicich se $k$ politickému středu, dokonce i $k$ levici. (=He is sup- |
| :--- |
| ported by the centrists, even the leftists) |

Example:
Má podporu u voličů hlásícich se $k$ politickému středu, nebo.GRAD dokonce.CM $k$ levici. (=lit. (He) has support with voters belonging REFL to political centre or even to left) Fig. 7.70

Conjunction modifiers. Typical conjunction modifiers cooccuring with the GRAD functor are:

- restrictors.

For example: vůbec, jen, zejména etc.
Example:
Jak mají vypadat vztahy mezi NKÚ a vládou, prý nezávisí jen. CM na jejich libovůli, nýbrž.GRAD jsou stanoveny zákonem. (=The relation between NKÚ and the government does not depend only on their willingness but it is established by a law)

- negating conjunction modifiers.

For example: ne, nikoli, ani etc.
Stát neposkytne na nákup bytů zaádné slevy, [\#Comma.GRAD] dokonce.CM ani.CM žádnou jinou finančni pomoc. (The state will not offer a discount, not even any other financial help)

## - other conjunction modifiers.

| dokonce | Sedláček z voleje střilel nepřesně, Pěničkovu hlavičku chytil pohotový Šimůrka a v 71. <br> minutě dokonce Horvát nastřelil tyč. ( $=$ S. wasn't shooting accurately, P.'s header was <br> caught by Š. and in the 71st minute, H. even hit the goalpost) |
| :--- | :--- |
| navíc | Do roku 1989 měl tehdy státní podnik Sběrné suroviny v Praze 135 sběren, navic <br> rovnomérné rozložených. (=..they had 135 collecting points, moreover equally spread) |
| nadto | Potřebujeme malý a jednoduchý stroj, aby by jej mohl obsluhovat jediný člověk, a nadto <br> nespecialista. (=We need a simple machine such that a single person could operate it, <br> moreover a non-professional) |
| neřku-li | Žádné velké, neřku-li systémové změny podnik nechystá. (=The company is not preparing <br> any big changes, let alone systemic changes) |

jednak Jednak mu to usnadní práci, a především bota vypadá mnohem lépe. (=It will make his work easier, and most importantly the shoe looks much better then)

NB! Jednak can be a conjunction modifier with the GRAD functor. However, primarily, it cooccurs with the CONJ functor; if the proposition of the second clause is graded w.r.t. the first clause (esp. if this is made clear by an appropriate restrictor) the root node of the paratactic structure can also be assigned the GRAD functor. For example:

To je způsobeno jednak. CM dodaným teplem, ale. GRAD hlavně.CM cenami. (=This is caused by the heat supply but mainly by the prices)

Contextualizers. Coordinating conjunctions (with the GRAD functor) can be combined with other conjunction modifiers, too, esp. with so called contextualizers.

Examples:
V první vlněse sice.CM o kontrole těchto limitů hovořilo, [\#Comma.GRAD] dokonce.CM se i.CM sledovaly, $k$ žádným konkrétním sankcím se však nesáhlo. (=...people talked about the checks of the limits, they were even observed but..)

Laikovi se brzy zdá, že nejde o pouhý laciný švindl, nýbrž o naprosto legitimní problém, o jehož ošetření usiluje nejen. CM ekonomická věda, ale. GRAD i. CM politická praxe. (=...not only in theory but also in the political practice)

Ukázalo se tehdy, že nejen. CM metody práce s mladými lidmi, ale.GRAD také.CM samy výsledky jsou pro naše publikum sdělné a inspirativni. (=...not only the methods but also the results are inspiring)

Záměrem společnosti neni [\#Neg.CM] jen.CM stavět domy, ale.GRAD také.CM se postarat $\underline{i} . \mathrm{CM} o$ sportovní vyžití. (=The intention is not only to build houses but also provide sports facilities)

Hlava Vatikánu nezastupuje [\#Neg.CM] jen.CM tisicovku občanů, ale.GRAD je též.CM hlavou řimskokatolické cirkve, která má stamiliony věrícich po celém světě. (=The head of Vatican does not only represent one thousand of citizens but is also the head of the Church...)

Figure 7.70. The GRAD functor


Má podporu u voličů hlásicích se k politickému středu nebo dokonce k levici. (=lit. (He) has support with voters belonging REFL to political centre or even to left)

### 7.12.1.7.1. Borderline cases with the GRAD functor

Border with the CONJ and ADVS functors. Only few (coordinating) connectives express the meaning of the GRAD functor unambiguously. Gradation is most often expressed by conjunctions the basic function of which it is to express the CONJ (i.e. a, i, ani) or ADVS meaning (ale, nýbrž), or else the connection is asyndetic. The GRAD functor is assigned especially if a conjunction modifier expressing gradation is part of the complex connective. Cf.:

- dům $\underline{\text { a } . ~ C O N J ~ z a h r a d a ~(=t h e ~ h o u s e ~ a n d ~ g a r d e n) ~}$
- dům a. GRAD navic. CM zahrada (=a house and morover a garden)
- Ta by jednak.CM upravovala kategorie výdajů a .CONJ jednak.CM by omezovala moc státu v úpravách dan̆ových zákonů. (=It would, on the one hand, regulate the costs and, on the other hand, it would put a limit on the power of the state...)
- Ta by jednak.CM upravovala kategorie výdajů, a.GRAD navic.CM by omezovala moc státu v úpravách daňových zákonů. (=It would, on the one hand, regulate the costs and, moreover, it would put a limit on the power of the state...)

If no conjunction modifier is used (esp. when the conjunction is ani) it is necessary to consider the relation between the propositions (modifications) carefully. Cf.:

- Nechceme konkurovat stanici Prahaani.CONJ Radiožurnálu. (=We don't want to compete with either Praha or Radiožurnál)
- Tento jev není popsán v učebnicích, á.GRAD ani.CM v odborné literatuře. (=This phenomenon is not described in textbooks and not even in technical literature)
- Tento jev není popsán v učebnicich, ani.GRAD v odborné literatuře. (=This phenomenon is not described in textbooks, not even in technical literature)


### 7.12.1.8. REAS

Definition of the REAS functor
The REAS (reason) functor is a functor assigned to the root node of such a paratactic structure that connects two propositions (modifications) the second of which is the reason for/cause of the first one.

Basic connectives. The basic (coordinating) connectives with the meaning of the REAS functor are:

| nebot | Tento krok je pro národní hospodářství velice nebezpečný, nebot' se do ekonomiky zanáší <br> nesmírná džungle. (=This step is dangerous since it lets the jungle into our economy) |
| :--- | :--- |
| totiž | Provokace byly zjevně motivovány zlobou, všechny kocourkovské noviny si totiž do starosty s <br> chutí rýply. (=The provocations were clearly motivated by anger, for all the newspapers were <br> happy to pitch into the mayor) |
| vždyt' | Úkol splníme, vždyt' není obtižný. (=We'll fulfil the task, for it is not difficult) |

NB! The conjunction modifier totiž can be found with appositions, too (see Section 7.12.2.1, "Borderline cases with the APPS functor").

Conjunction modifiers. Coordinating conjunctions are often combined with other expressions that modify their meaning (see Section 8.16.1.2, "Conjunction modifiers"). With the REAS functor, the coordinating conjunctions mostly combine only with so called contextualizers.

Examples:
U'kol splnime, vždyt’. REAS také.CM není obtižný. (=We'll fulfil the task, for it is not difficult) Fig. 7.71
Nemohu odejít, nebot'. REAS ještě. CM nepřestalo pršet. (=I can't leave since it hasn't stopped raining yet)

Figure 7.71. The REAS functor


Úkol splnime, vždyt̉ také neni obtižnýy. (=lit. Task (we) will fulfil, since too not_is difficult)

### 7.12.1.8.1. Borderline cases with the REAS functor

Border with the CSQ functor. The REAS functor is to be distinguished from the CSQ functor, which also expresses a causal relation but viewed from the other side: the second proposition (modification) is the consequence of the first one. Cf .:

- Pracoval nezodpovědně, a.CSQ proto.CM dostal výpověd' (=He wasn't responsible in his work (and) therefore he was fired).
- Dostal výpověd', nebott. REAS pracoval nezodpovědně. (=He was fired, since he wasn't responsible)

Border with the CAUS functor. A cause or reason can also be expressed by a dependent clause; then, the effective root node of the clause is assigned the CAUS functor (see Section 7.5.2, "CAUS"). For the border between the REAS and CAUS functors, see Section 7.5.2.1, "Borderline cases with the CAUS functor ".

Border with the APPS functor. The connectives listed above are usually assigned only the REAS functor; only totiz can also be used with appositions. See also Section 7.12.2.1, "Borderline cases with the APPS functor".

### 7.12.2. Functor for apposition (APPS)

The definition of the APPS functor
The APPS (apposition) functor is assigned to the root nodes of such paratactic structures in which two or more propositions (modifications) are in apposition.
!!! Further distinctions, as to the kind of the apposition, are not made.
Basic connectives. Most often, the connection is asyndetic with appositions. The following punctuation marks are used:

| comma (t_lemma=\#Comma) | Božena Němcová, autorka Babičky (=BN, the author of Babička) |
| :--- | :--- |
| colon (t_lemma=\#Colon) | Morová rána: Skuhravý zraněn. (=Catastrophe: S. injured) |
| slash (t_lemma=\#Slash) | Labe/Elbe. |
| dash (t_lemma=\#Dash) | Tomu odpovidala cílová místa - Kypr, Kréta, Malta. (=This was <br> reflected by the destinations - Cyprus, Crete, Malta) |
| bracket (t_lemma=\#Bracket) | ODS (Občanská demokratická strana) |

NB! In case the brackets contain an abbreviation, or the full name if the abbreviation precedes the brackets, the content of the brackets is not analyzed as parenthesis but as apposition. See also Section 8.19.2, "Text in brackets and within dashes".

Apposition can also be expressed by some coordinating conjunctions:

| a | Šampiónka z Anglie a třetí nasazená hráčka opět ukázala, co umí. (=The champion from <br> England and the one seeded third showed again what's in her) |
| :--- | :--- |
| aneb | Hobit aneb Cesta tam a zase zpátky (=The Hobbit or there and back again) |
| či | paviáni, či africké opice (=baboons, or African monkeys) |
| čili | paviáni, čili africké opice (=baboons, or African monkeys) |
| jako | moravská města jako Brno a Olomouc (=Moravian towns like Brno and Olomouc) |
| jinak | slečna Sollárová, jinak slovenská malǐrka (=Miss S., the Slovak painter) |
| neboli | jeden rok, neboli dva semestry (=one year, or two semesters) |
| totiž | Peníze získáváme z různých zdrojů, totiž od vlády nebo od sponzorů. (=We get money from <br> different sources, namely from the government or sponsors) |

Apart from these common connectives, apposition can also be expressed by some other expressions:

| alias | Olda alias Šemík vystoupil na Vyšehrad z vrtulníku. (=Olda alias Šemik got to <br> Vyšehrad in the helicopter) |
| :--- | :--- |
| a to | Ve zdravotnictví přidávali, a to lékařìm. (=They got a pay rise, namely the <br> doctors did) |
| de facto | funkce hlavniho lékaře, de facto ministra zdravotnictví (=The function of the <br> chief doctor, in fact the Minister of Health) |
| to jest (or tj.) | Právo je souhrnem norem, tj. předpisů, zákazů a sankcí. (=Law is a collection <br> of norms, i.e. regulations, prohibitions and sanctions) |
| to znamená (or tzn.) | půdní režim, to znamená půdní vláha (=soil environment, i.e. soil humidity) |

For more on appositions with $a$ to see Section 6.6.2.1.2, "Apposition with an additional modification (connected by means of "a to", "a sice")".

Example:
Právo je souhrnem norem, to jest.APPS předpisůu, zákazů a sankcí. (=Law is a collection of norms, i.e. regulations, prohibitions and sanctions) Fig. 7.72

Conjunction modifiers. Also with appositions, conjunction modifiers are often used (see Section 8.16.1.2, "Conjunction modifiers"). Typical conjunction modifiers cooccuring with the APPS functor are:

- restrictors.

For example: třeba, zejména etc.
Example:

Přeorientují se na jiné zboži,[\#Comma.APPS] třeba.CM na vodku. (=They will start selling other goods, e.g. vodka)

## - other conjunction modifiers.

| konkrétně | Potkal jsem tři spolužáky, konkrétně Pavla, Petra a Martina. (=I met three classmates, <br> namely P., P. and M.) |
| :--- | :--- |
| například | různá zvířata, napřiklad ježek (=various animals, e.g. the hedgehog) |
| přesněji | smlouva s dodavatelem, přesněji organizátorem (=the deal with the supplier, more <br> precisely the organizer) |
| respektive | Stálo to 300 USD, respektive 9000Kč. (=It cost 300 USD, or 9000Kč) |
| sice | Nadnesl ještě jeden problém, a sice pozdní příchody. ( $=$ He mentioned one more <br> problem, namely the late arrivals) |
| tedy | Podmínkou je mít sponzora, tedy firmu, která to zaplatí. ( $=$ The condition is to have a <br> sponsor, i.e. a company who is going to pay for it) |
| tudíž | Přišel s tímto nápadem už koncem 60. let, tudíz až po válce. (=He came up with the <br> idea already in the 60s, i.e.after the war) |
| zkrátka | když člověk přijde o rodinu, zkrátka když je na dně (=when someone loses his or her <br> family, i.e. when he or she is really down) |

NB! The conjunction modifier respektive has three meanings. It can also be used with the CONJ and DISJ functors. See also Section 7.12.2.1, "Borderline cases with the APPS functor".

NB! The conjunction modifier sice modifies primarily conjunctions with the ADVS meaning. For appositions with a sice see also Section 7.12.2.1, "Borderline cases with the APPS functor" and Section 6.6.2.1.2, "Apposition with an additional modification (connected by means of "a to", "a sice")".

NB! The conjunction modifier tedy primarily modifies conjunctions with the CSQ meaning; however, it can also be used with apposition. See also Section 7.12.2.1, "Borderline cases with the APPS functor".

NB! The conjunction modifier tudiž primarily modifies conjunctions with the CSQ meaning; however, it can also be used with apposition. See also Section 7.12.2.1, "Borderline cases with the APPS functor".

Figure 7.72. The APPS functor


Právo je souhrnem norem, to jest předpisů, zákazů a sankcí. (=lit. Law is collection (of) norms, id est regulations, bans and sanctions)

### 7.12.2.1. Borderline cases with the APPS functor

Border with the CONJ functor. The APPS functor is semantically very close to the CONJ functor. In both cases, the propositions (modifications) are simply conjoined; with the CONJ functor, the referents of the two members are not the same whereas with appositions they are. Cf.:

- Učíme se o českých panovnícich, [\#Comma.CONJ] o Divišovi a Křižikovi. (=We are learning about Czech monarchs, D. and K.)
- Učíme se o českých panovnících, [\#Comma.APPS] o Václavovi a Karlovi. (=We are learning about the Czech monarchs, V. and K.)
 England and the one seeded third showed again what's in her)
- Šampiónka z Anglie á. CONJ třetí nasazená hráčka opět ukázaly, co umějí. (=The champion from England and the one seeded third showed again what's in them)

Borders with other functors for coordination. Some conjunctions and conjunction modifiers are homonymous and can express other meanings, too (the conjunction jinak, the conjunction modifiers tudiź, tedy, totiž, respektive, sice). It is therefore necessary to use the identity of referents criterion for distinguishing coordination from apposition Cf .:

- Ještěže jich bylo jen devět, iinak.CSQ by pravidla nevznikla. (=Thanks god they were nine, otherwise the rules would not be established)
- Udělej to, jinak.DISJ bude zle. (=Do it, or it will have serious consequences)
- slečna Sollárová, jinak.APPS slovenská maliřka (=Miss S., the Slovak painter)
- Byl nemocný, [\#Comma.CSQ] tudizz.CM nepřišel. (=He was ill, so he didn't come)
- Přišel s tímto nápadem už koncem 60. let, [\#Comma.APPS] tudiž.CM až po válce. (=He came up with the idea already in the 60 s, i.e. after the war)
- Podminkou je mit sponzora, [\#Comma.APPS] tedy. CM firmu, která to zaplati. (=The condition is to have a sponsor, i.e. a company who is going to pay for it)
- Je to utajeno, a. CSQ tedy.CM chráněno. (=It is a secret, hence it is protected)
- Rybí maso musime jist čerstvé, podléhá totiž.REAS rychlému rozkladu. (=Fish has to be eaten fresh, it goes bad fast)
- Penize ziskáváme z různých zdrojů, totiž.APPS od vlády nebo od sponzorů. (=We get money from different sources, namely from the government or sponsors)
- O tom se sice.CM občas piše v novinách, ale.ADVS ve skutečnosti tomu tak nebývá. (=They write about it in newspapers but in reality it is different)
- Nadnesl ještě jeden problém, á.APPS sice.CM pozdní přichody. (=He mentioned one more problem, namely late arrivals)

For more on appositions with a sice see Section 6.6.2.1.2, "Apposition with an additional modification (connected by means of "a to", "a sice")".

The conjunction modifier respektive has three meanings: either it expresses weak disjunction (DISJ; see also Section 7.12.1.6, "DISJ"), or it signals a relation between two conjoined modifications (CONJ; see Section 7.12.1.3, "CONJ"), or it can be a conjunction modifier with appositions. Cf.:

- Stálo to 300 USD, [\#Comma.APPS] respektive.CM 9000Kč. (=It cost 300 USD, or 9000Kč)
- A je snad zbytečné dodávat, jak to skončí, pokud obrázkům nerozumite alespoň tolik co prodávající, [\#Comma.DISJ] respektive.CM kupujicí. (=...if you don't understand the pictures at least as much as the seller, or rather the buyer)
- Letos v prvním čtvrtletí činily krátkodobé sazby v USA 3.0 a dlouhodobé 6.3 procenta, v Německu 5.8, [\#Comma.CONJ] respektive.CM 5.6\%. (=...in Germany it was 5.8, or rather 5.6\%)

Functors bordering as the result of the multifunctional conjunction "jako". The APPS functor can get very close to the CONJ functor (see Section 7.12.1.3, "CONJ"), and even the CPR (see Section 7.6.2, "CPR") and COMPL (see Section 7.11, "Functor for the predicative complement (COMPL)") functors. This is caused by the fact that the conjunction jako carries the meaning of all the mentioned functors. For more details see Section 8.17.4, "The conjunctions "než" and "jako"".

### 7.12.3. Functor for mathematical operations and intervals (OPER)

Definition of the OPER functor

The OPER (operand) is a functor assigned to the root node of such a paratactic structure in which the members of mathematical operations or intervals are connected (and which cannot be analyzed by means of temporal or locative/directional functors).

Annotation rules for mathematical operations and intervals (OPER) are described in detail in Section 8.11, "Mathematical operations and intervals".

Basic connectives - operators. Mathematical operations and intervals make use of both coordinating and subordinating connectives, which are called operators. For more on operators see Section 8.16.2, "Operators".

| + | byt $4+1$ ( $=4+1$ apartment $)$ |
| :--- | :--- |
| x | Přiklady jako $15 \times 7$ jsou pro tyto děti ještě moc těžké. ( $=$ Exercises like $15 \times 7$ are still too <br> difficult for these children) |
| $\mathrm{krát}$ | rozměr 4 krát 5 metrů $(=4 \times 5$ meters) |
| ku | poměr deset ku jedné $(=10: 1)$ |
| minus | pět minus dva ( $=$ five minus two) |
| plus | Včera podepsaná roční smlouva garantuje fotbalu 7 milionů Kč plus pohyblivou částku $10-$ <br> 12 milionů. $(=\ldots 7$ million plus 10 to 12 million) |


| comma (t_lemma=\#Comma) | Nabidneme to o dvě, tři stovky levněji. (=We'll be two, three hundred <br> cheaper) |
| :--- | :--- |
| colon (t_lemma=\#Colon) | Výsledek 5: 0 se nám moc zamlouval. (=We liked the result 5:0); <br> Přiklady jako 15:7 jsou pro tyto děti ještě moc těžké. (=Exercises <br> like 15:7 are still too difficult for these children) |
| slash (t_lemma=\#Slash) | Potřebujete 1/4 vody. (=You only need $1 / 4$ of the water) |
| dash (t_lemma=\#Dash) | ve véku $34-44$ let (=at the age of $34-44) ; 15-5$ je deset. ( $=15-5$ is <br> ten) |


| až | pondělí až pátek (=from Monday to Friday) |
| :---: | :---: |
| mezi - a (t_lemma=a) | věk mezi 15 a 20 lety (=the age between 15 and 20) |
| od - do ( t _lemma=od_do) | od hlavnich bodů do nejmenšich detailů (=from the main points to the tiniest details) |
| od - k (t_lemma=od_do) | cykly trvající od čtyřiceti k padesáti létům (=cycles lasting from forty to fifty years) |
| od - po (t_lemma=od_do) | $V$ jednom mistě nakoupím vše od zeleniny po mléčné výrobky a drogerii. (=At one spot I can buy everything from vegetables to dairy products and cosmetics) |
| od - přes - do (t_lemma=od_do) | od hlavnich bodů přes přiklady do nejmenšich detailů (=from the main points to the examples and the tiniest details) |
| od - přes - $\mathrm{k}(\mathrm{t}$ _lemma=od_do) | od knih básniřry Guro přes obálky Maleviče k úpravám knih Larionova (=from books by Guro to book covers by Malevic and layouts by Larionov) |
| od - přes - po (t_lemma=od_do) | Sledovali to všichni, od dětí přes mládež po dospélé. (=Everybody watched it, from the children and youth to the adults) |


| $\begin{aligned} & \text { od - počínaje - po } \\ & (\mathrm{t} \text { _lemma=počinaje_konče }) \end{aligned}$ | každýz ulice, od dětí počínaje po dávno dospělé (=Everybody from the street, from the children to the adults) |
| :---: | :---: |
| $\begin{aligned} & \text { počínaje }- \text { konče } \\ & \text { (t_lemma=počinaje_konče) } \end{aligned}$ | Stravování je zajištěno celý den, snidaní počínaje, večeří konče. (=...from breakfast to dinner) |
| počínaje - a - konče <br> (t_lemma=počinaje_konče) | počinaje dětmi a konče dospělými (=from the children to the adults) |
| $\begin{aligned} & \text { počínaje - až - po } \\ & \text { (t_lemma=počinaje_konče) } \end{aligned}$ | počinaje složitou dopravou na Strahov až po dlouhé fronty na listky (=from the difficult journey to Strahov to the long queues for the tickets) |
| $\begin{aligned} & \text { počínaje - přes - až }-\mathrm{k} \\ & \text { ( } \mathrm{t} \text { _lemma=počínaje_konče) } \end{aligned}$ | počínaje biblemi prvotiskovými přes bibli Melantrichovu až k Bibli svatováclavské (=from the first Bibles to Melantrich's Bible and St. Wenceslas's Bible) |

Example:
cykly trvající od čtyřiceti k padesáti létiom [od_do.OPER] (=lit. cycles lasting from forty to fifty years) Fig. 7.73

Figure 7.73. The OPER functor

cykly trvající od čtyřiceti k padesáti létům (=lit. cycles lasting from forty to fifty years)

### 7.12.3.1. Borderline cases with the OPER functor

Borders with the temporal and locative/directional functors. It is necessary to distinguish the cases with the OPER functor from the cases that should be analyzed by means of appropriate temporal or locative/directional functors. See also Section 8.11, "Mathematical operations and intervals"; more examples are to be found there.

### 7.12.4. Functor for conjunction modifiers (CM)

Definition of the CM functor
The CM functor is a functor assigned to conjunction modifiers.
Conjunction modifiers are described in detail in Section 8.16.1.2, "Conjunction modifiers".
Forms. Conjunction modifiers are mostly various particles and adverbs.
Example:
Rozpočet nejenže. CM není přebytkový, ale.GRAD dokonce.CM je skrytě deficitní. (=The budget not only isn't surplus, it is even covertly deficit) Fig. 7.74

Figure 7.74. The CM functor


Rozpočet nejenže není přebytkový, ale dokonce je skrytě deficitní. (=lit. Budget not_only not_is surplus, but even is covertly deficit)

### 7.12.4.1. Borderline cases with the $C M$ functor

Border with the RHEM functor. For the border between conjunction modifiers and rhematizers, see Section 8.16.1.2, "Conjunction modifiers".

Borders with the functors for coordination, apposition and mathematical operations and intervals. For the border between conjunction modifiers and conjunctions, see Section 8.16.1.2, "Conjunction modifiers".

### 7.13. Further specification of a functor

Two attributes are used to specify the meaning of certain modifications in more detail:

- the subfunctor attribute (see Section 7.13.1, "Subfunctors");
- the is_state attribute (see Section 7.13.2, "Attribute with the meaning of "state"").


### 7.13.1. Subfunctors

Subfunctors describe semantic variation within a particular functor, they provide further specification of its meaning and the semantic relation between the modification and its governing word.

These differences within one functor are expressed by various prepositional phrases, by using different cases or conjuctions.

Subfunctors are not assigned to all PDT functors that would need a more detailed specification of their meaning but only to a limited group of functors. Subfunctors are assigned to the following functors in PDT:

- ACMP (see Section 7.13.1.1, "Subfunctors with the ACMP functor"),
- BEN (see Section 7.13.1.2, "Subfunctors with the BEN functor"),
- CPR (see Section 7.13.1.3, "Subfunctors with the CPR functor"),
- DIR1 (see Section 7.13.1.4, "Subfunctors with the DIR1 functor"),
- DIR2 (see Section 7.13.1.5, "Subfunctors with the DIR2 functor"),
- DIR3 (see Section 7.13.1.6, "The subfunctors with the DIR3 functor"),
- EXT (see Section 7.13.1.7, "Subfunctory with the EXT functor"),
- LOC (see Section 7.13.1.8, "Subfunctors with the LOC functor"),
- TWHEN (see Section 7.13.1.9, "Subfunctors with the TWHEN functor").

The information on the subfunctor is carried by the attribute subfunctor.
Subfunctors were assigned on the basis of the surface form of the modification with the particular functor.

Each functor has its own set of forms which express the basic meaning of the functor. A modification realized by one of these forms has the value basic in the attribute subfunctor. The set of forms of the subfunctor basic includes also adverbial modifications. Adverbs can also carry meanings of other functors but the meaning of an adverb can be unambiguously arrived at from its lexical content, therefore, adverbial modifications are not further specified and they are always assigned the basic subfunctor basic.

Each (selected) functor has a set of subfunctors describing further semantic differences within the functor. These subfunctors were assigned the surface forms (of the particular modification) that clearly express the relevant meanings.

Modifications in the surface form that has not been assigned to any subfunctor have the subfunctor attribute filled with the value nr (not recognised).

Therefore, for each functor in the selected group, there are the subfunctor values basic and nr .
For the values of the subfunctor attribute see Table 7.3, "Values of the subfunctor attribute".

## Table 7.3. Values of the subfunctor attribute

| above | subfunctor with the meaning <br> "above" | This subfunctor is assigned to the functors DIR3 (see <br> Section 7.13.1.6, "The subfunctors with the DIR3 func- <br> tor") and LOC (see Section 7.13.1.8, "Subfunctors with <br> the LOC functor"). |
| :--- | :--- | :--- |
| abstr | subfunctor with the abstract <br> meaning "in the field/area" | This subfunctor is assigned to the LOC functor (see Sec- <br> tion 7.13.1.8, "Subfunctors with the LOC functor"). |
| across | subfunctor with the meaning <br> "across" | This subfunctor is assigned to the DIR2 functor (see <br> Section 7.13.1.5, "Subfunctors with the DIR2 functor"). |
| after | subfunctor with the meaning <br> "after" | This subfunctor is assigned to the functor TWHEN (see <br> Section 7.13.1.9, "Subfunctors with the TWHEN functor"). |
| agst | subfunctor with the meaning of <br> sb’s detriment | This subfunctor is assigned to the BEN functor (see Sec- <br> tion 7.13.1.2, "Subfunctors with the BEN functor"). |
| along | subfunctor with the meaning <br> "along" | This subfunctor is assigned to the functors DIR2 (see <br> Section 7.13.1.5, "Subfunctors with the DIR2 functor") |
| and LOC (see Section 7.13.1.8, "Subfunctors with the |  |  |
| LOC functor"). |  |  |$|$| approx | subfunctor with the meaning <br> "approximately" |
| :--- | :--- |
| This subfunctor is assigned to the functors EXT (see <br> Section 7.13.1.7, "Subfunctory with the EXT functor") |  |
| "circumstance" |  |


| elsew | subfunctor with the meaning "elsewhere" | This subfunctor is assigned to the functors DIR3 (see Section 7.13.1.6, "The subfunctors with the DIR3 functor") and LOC (see Section 7.13.1.8, "Subfunctors with the LOC functor"). |
| :---: | :---: | :---: |
| end | subfunctor with the meaning "at the end" | This subfunctor is assigned to the TWHEN functor (see Section 7.13.1.9, "Subfunctors with the TWHEN functor"). |
| ext | subfunctor with the meaning "to what extent" | This subfunctor is assigned to the DIR3 functor (see Section 7.13.1.6, "The subfunctors with the DIR3 functor"). |
| flow | subfunctor with the meaning "during" | This subfunctor is assigned to the TWHEN functor (see Section 7.13.1.9, "Subfunctors with the TWHEN functor"). |
| front | subfunctor with the spacial meaning "in front of" | This subfunctor is assigned to the functors DIR3 (see Section 7.13.1.6, "The subfunctors with the DIR3 functor") and LOC (see Section 7.13.1.8, "Subfunctors with the LOC functor"). |
| incl | subfunctor with the meaning of inclusion | This subfunctor is assigned to functor ACMP (see Section 7.13.1.1, "Subfunctors with the ACMP functor"). |
| in | subfunctor with the meaning "inside" | This subfunctor is assigned to the functor LOC (see Section 7.13.1.8, "Subfunctors with the LOC functor"). |
| less | subfunctor with the meaning "less than" | This subfunctor is assigned to the EXT functor (see Section 7.13.1.7, "Subfunctory with the EXT functor"). |
| mid | subfunctor with the meaning "in the middle" | This subfunctor is assigned to the functors LOC (see Section 7.13.1.8, "Subfunctors with the LOC functor") and TWHEN (see Section 7.13.1.9, "Subfunctors with the TWHEN functor"). |
| more | subfunctor with the meaning "more than" | This subfunctor is assigned to the EXT functor (see Section 7.13.1.7, "Subfunctory with the EXT functor"). |
| near | subfunctor with the meaning "near" | This subfunctor is assigned to the functors DIR2 (see Section 7.13.1.5, "Subfunctors with the DIR2 functor"), DIR3 (see Section 7.13.1.6, "The subfunctors with the DIR3 functor") and LOC (see Section 7.13.1.8, "Subfunctors with the LOC functor"). |
| nr | this value indicates that no subfunctor has been determined for the surface form of the modification | This value is assigned to all functors. |
| opp | subfunctor with the meaning "opposite" | This subfunctor is assigned to the functors DIR3 (see Section 7.13.1.6, "The subfunctors with the DIR3 functor") and LOC (see Section 7.13.1.8, "Subfunctors with the LOC functor"). |
| target | subfunctor with the meaning "target" | This subfunctor is assigned to the DIR3 functor (see Section 7.13.1.6, "The subfunctors with the DIR3 functor"). |
| than | subfunctor with the meaning of comparison based on a difference | This subfunctor is assigned to the CPR functor (see Section 7.13.1.3, "Subfunctors with the CPR functor"). |
| to | subfunctor with the meaning "to" | This subfunctor is assigned to the DIR3 functor (see Section 7.13.1.6, "The subfunctors with the DIR3 functor"). |
| wout | subfunctor with the meaning "no accompaniment" | This subfunctor is assigned to the ACMP functor (see Section 7.13.1.1, "Subfunctors with the ACMP functor"). |


| wrt | subfunctor with the meaning <br> "the entity sth is compared to", | This subfunctor is assigned to the functor CPR (see Sec- <br> tion 7.13.1.3, "Subfunctors with the CPR functor"). |
| :--- | :--- | :--- |

The definitions of the individual subfunctors including the assigned surface forms are to be found in the following subsections.
!!! In certain cases the borders between the individual subfunctors are not very clear. Many surface forms express more meanings, however, in the automatic annotation homonymous surface forms were assigned only to one subfunctor. Many subfunctors (esp. the subfunctor bas ic) need further division in the future. The modifications that have been assigned the nr subfunctor will need an appropriate subfunctor instead. It will be necessary to check the subfunctor assignment manually.

### 7.13.1.1. Subfunctors with the ACMP functor

The ACMP functor (see Section 7.6.1, "ACMP") has been assigned the following subfunctors:
basic The subfunctor basic (with the functor ACMP) expresses the meaning of the "positive accompaniment" (companion or association with sb/sth).

The subfunctor basic is assigned to the modifications with the ACMP functor that have one of the following surface forms:

| s+7 | tatinek s maminkou (=father with mother) |
| :---: | :---: |
| spolu s+7 | Obsahoval potěsující sdělení spolu se srdečnou gratulací (=It contained a pleasing message together with a hearty congratulation.) |
| společně $\mathrm{s}+7$ | Host společně s vrchním majitelem sestavuje menu. (=The guest together with the proprietor prepare a menu.) |
| v čele $\mathrm{s}+7$ | celá rodina $\underline{v}$ čele s otcem (=the whole family with father in the lead) |
| ve spojení $\mathrm{s}+7$ | Nejméně přiznivou prognózu má právě ekzém ve spojení s alergickým postiženim horních cest dýchacich. (=The least favourable prognosis relates to eczema in connection with allergic affliction of the respiratory system.) |
| zároveň s+7 | Zároveň s hovorem dostane referent na svůj monitor potřebné informace o volajícím zákaznikovi. (=Simultaneously with the call the speaker can see the necessary information about the calling customer on his monitor.) |
| ruku v ruce s+7 | Považoval bych za velmi neštastné, aby ODS řešila tento problém ruku v ruce s opozici. (=I would consider it very unhappy if ODS solved this problem hand in hand with the opposition.) |

circ The subfunctor circ (circumstance) expresses the meaning of a "vague circumstance", something that accompanies the event.

The subfunctor circ is assigned to those modifications with the ACMP functor that have one of the following surface forms:

| bez toho, aby+vfin | Tenis může být podívanou i bez toho, aby po kurtě chodily polonahé <br> děvy s tabulemi oznamujícími skóre. (=Tennis can be a spectacle without <br> half-naked sluts pacing the court with the score charts.) |
| :--- | :--- |
| s tím+vfin | Jenže s tím, jak se zvětšovala moje smečka, ubýval čas na lezení. <br> (=However, the bigger my loop was the less time for climbling I had.) |
| s tím, že+vfin | Nepředurčují tyto zdroje jisté geniální a vnímavé jedince k přenesení <br> těchto jemných signálů do reality s tím, že pak zpùsobi skutečnou bouři? <br> (=Do not these sources predestine some brilliant and perceptive indi- |


|  | viduals to transmit these gentle signals into reality, which will cause <br> there a real storm then? |
| :--- | :--- |
| v souvislosti s+7 | Vyšetřovatelé si v souvislosti s korupčním skandálem přišli vyslechnout <br> i dalšho z vysoce postavených belgických socialistù. ( $=$ In connection <br> with the venal affair the investigators came to hear the evidence of an- <br> other of the high-ranking Belgian socialists.) |
| v souvislosti s tím, <br> že+vfin | V souvislosti s tím, že Portugalsko Českou republiku oficiálně ve snaze <br> o vstup do aliance podporuje LN tohoto diplomata požádaly o rozhovor. <br> (=In connection with the fact that Portugal officially supports the effort <br> of the Czech Republic to join the EU LN asked this diplomat for an in- <br> terview.) |

incl The subfunctor incl (include) expresses the meaning of inclusion.
The subfuctor incl is assigned to the modifications with the ACMP functor that have the following surface form:

| včetně+2 | Ročně by tedy zaplatila na pojistném včetně úrazového připojištění 4104 korun. <br> (=Thus she would pay 4104 CZK annualy for the insurance, including the accident <br> insurance) |
| :--- | :--- |

wout The subfunctor wout (without) expresses the negative variant of the basic meaning of the ACMP functor, i.e. the meaning of the "negative accompaniment ".

The subfunctor wout is assigned to the modifications with the ACMP functor that have the surface form the surface form:

```
bez+2 pokoj bez vlastniho přislušenství (=a room without facilities)
```

$\mathrm{nr} \quad$ The subfunctor nr is assigned to all the other modifications with the ACMP functor that do not have any of the forms listed above.

### 7.13.1.2. Subfunctors with the BEN functor

The BEN functor (see Section 7.9.1, "BEN") is assigned the following subfunctors:
basic The subfunctor basic expresses the meaning of "benefit".
The subfunctor basic is assigned to the modifications with functor BEN that are realized by one of the following surface forms:

| ku prospěchu +2 | Bylo by to ku prospěchu věci, kdybychom se na prioritách dohodli v rámci <br> celého parlamentu. (=It would be to the benefit of the matter if we could <br> agree on priorities within the whole parliament.) |
| :--- | :--- |
| pro+4 | Profit připravuje pro své čtenáře poradnu. (=Profit is preparing an advis- <br> ory column for its readers.) |
| ve prospěch+2 | Zřikají se osobní kariéry ve prospěch dětí. (=They give up their career in <br> favour of their children.) |
| v zájmu+2 | Zříkají se osobní kariéry v zájmu súch dětí. (=They give up their career <br> in favour of their children.) |

agst The subfunctor agst (against) represents the negative counterpart of the basic meaning of the BEN functor, i.e. the meaning of "detriment".

The subfunctor basic is assigned to the modifications with the BEN functor that have one of the following surface forms:

| na úkor+2 | Hlavní překážkou státu fungovat na úkor jednotlivce je demokratický <br> politický systém. (=A democratic system is the main obstacte to the state's <br> functioning to the detriment of an individual.) |
| :--- | :--- |
| proti+3 | správní ř́zení proti České lékárnické komoře ( $=$ executive proceedings <br> against the Czech pharmaceutical association) |
| proti tomu, <br> aby+vfin | V televizní diskusi o pravopise zástupce ministerstva školství doporučoval <br> více pravopisných dublet, naproti tomu spisovatel Karel Pecka byl proti <br> tomu, aby pravopis byl tolik neustálený. (=In a TV debate on orthography |
| the representative of the secretary of education recommended more or- <br> thographic variants while Karel Pecka, a writer, on the contrary was <br> against orthography being so variable. $)$ |  |
| v neprospěch+2 | válečný vývoj v neprospěch Německa (=the development of the war to <br> the disadvantage of Germany) |

$\mathrm{nr} \quad$ The subfunctor nr is assigned to all the other modifications with the BEN functor that do not have any of the forms stated above.

### 7.13.1.3. Subfunctors with the CPR functor

The CPR functor (see Section 7.6.2, "CPR") is assigned the following subfunctors:
basic The subfunctor basic expresses the meaning of "similarity" (comparison on the basis of similarity).

The subfunctor basic is assigned to the modifications with the CPR functor that have the following surface form:

| jako | Sloni jsou jako Angličani. (=Elephants are like the English); Kdybych chtěl prodávat <br> stejné pohovky jako prodává nábytkár v nedaleké ulici, musel bych je nabidnout o <br> dvé, tři stovky levněji. (=If I wanted to sell the same sofas as the furniture seller in <br> the street not far from here I would have to offer them two or three hundred cheaper.) |
| :--- | :--- |
| jak | Jenže stejně rychle, jak naděje svitla, tak rychle pohasla. (=But that fast as hope ap- <br> peared that fast it vanished.) |

than The subfunctor than expresses the negative counterpart of the basic meaning of the CPR functor, i.e the meaning of "difference" (comparison based on difference).

The subfunctor than is assigned to the modifications with the CPR functor that have one of the following surface forms:

| genitive | To byla otázka pro 982 respondentů staršich 14 let. ( $=$ That was a question for <br> 982 people older than 14 years.) |
| :--- | :--- |
| než | V naší firměje několikanásobně vice zaměstnanců, než je služebních vozidel. (=In <br> our company there are several times more employees than there are company <br> cars); Vyrobili více než 495 milionů metrů krychlových pitné vody. (=They produced <br> more than 495 million cubic metres of potable water.) |
| nežli | I přes tato fakta stojí mořský důl mnohem méně nežli 500 milionů USD. (=In spite <br> of these facts a sea mine costs far less than 500 mil. USD.) |

wrt The subfunctor wrt (with respect to) is used for representing the entity "sth is compared to".

The subfunctor wrt is assigned to the modifications with the CPR functor that have one of the following surface forms:

| naproti +3 | Naproti tomu Letenští mají po pohárovém nezdaru problémy se sestavou. (=The team of Letná has, on the other hand, problems with their lineup after the failure at the championship.) |
| :---: | :---: |
| na rozdíl od+2 | Na rozdil od hotelů nemohly lázně využívat značného zisku vytvořeného $v$ předchozich dvou letech. (=Unlike the hotels, the spas could not use the considerable profits made in the last two years.) |
| proti+3 | Proti dřívějšku se však zase objevili noví zájemci. (=However, unlike the past new prospective buyers appeared again.) |
| oproti +3 | Oproti očekávanému celkovému odbytu 460000 aut všech značek se prodala sotva polovina. (=In spite of the expected total sales of 460000 cars of all makes a mere half has been sold.) |
| ve srovnání s+7 | ČR je podle něho v tomto ohledu výjimečná ve srovnání s okolnimi zeměmi střední Evropy. (=According to him, the Czech Republic is exceptional in this respect when compared to other countries in Central Europe.) |
| ve srovnání s tím+vfin | Komu se poštěstilo získat v některé grantové agentuře úspěšně grant, zná výhody, které to přináśí ve srovnání s tím, co jsme znali v minulosti. (=Who had the luck to get a grant from a grant agency knows the advantages compared to what we knew in the past.) |
| v porovnání k+3 | Obchodní vztahy mezi Českou republikou a Kanadou patřily v minulosti v porovnání k ostatním průmyslově vyspělým zemím k okrajovým. (=Business relations between the Czech Republic and Canada used to be marginal in comparison to other developed industrial countries.) |
| v porovnání ${ }^{+}$+ | Od roku 2000 v porovnánís rokem 1990 vzroste intenzita nejméně o 25 procent. (=From the year 2000 onwards intensity will grow by 25 per cent at least, compared to 1990.) |

nr
The subfunctor nr is assigned to all the other modifications with the CPR functor that do not have any of the forms listed above.

### 7.13.1.4. Subfunctors with the DIR1 functor

The DIR1 functor (see Section 7.4.1, "DIR1") is assigned the following subfunctors:
basic The subfunctor basic expresses the basic meaning of the DIR1 functor, i.e. the meaning "where from".

The subfunctor basic is assigned to the modifications with the DIR1 functor that have one of the following surface forms:

| adverb | Zezadu se prodral ke střibru domácí miláček. (=From behind the national favourite <br> made his way to the silver medal.) |
| :--- | :--- |
| od+2 | Manažeři zřejmé budou muset stále vice za svým uplatněním cestovat i několik <br> desitek kilometrů od svého bydlistě. <br> to several kilometres to find their professional fulfilment.) |


| $\mathrm{z}+2$ | Poměrně velká část poptávky odpadla, když $k$ nám ze zahraničíl začali jezdit chudši <br> turisté. ( $=$ A relatively large proportion of demand was dropped when poorer tourists <br> started to come from foreign countries.) |
| :--- | :--- |

nr
The subfunctor $n r$ is assigned to all the other modifications with the DIR1 functor that do not have any of the forms listed above.

### 7.13.1.5. Subfunctors with the DIR2 functor

The DIR2 functor (see Section 7.4.2, "DIR2") is assigned the following subfunctors:
basic The subfunctor basic expresses the basic meaning of the DIR2 functor, i.e. the meaning "which way".

The subfunctor basic is assigned to the modifications with the DIR2 functor that have one of the following surface forms:

| adverb | Musí ovládat umění nabizet své výrobky přimo ze dvora třeba turistovi, který <br> projde okolo. (=He must master the art of offering his products directly from <br> the yard perhaps to a tourist who is passing by.) |
| :--- | :--- |
| instrumental | Jejich přenos vzduchem, at' 'de o televizní, rozhlasový signál nebo digitální <br> data, zajišťují České radiokomunikace. (=Their transmittion via air either <br> for TV, radio or digital signal is supplied by the Czech Radiocommunica- <br> tions.) |

across The subfunctor across expresses the meaning "across".
The subfunctor across is assigned to the modifications with the DIR2 functor that have one of the following surface forms:

| napříč+7 | Y̌̌ibližování někdejšich satelitů k Atlantické alianci spouští novou železnou <br> oponu napří kontinentem (=As the former satellites are trying to approach <br> NATO, a new iron curtain is falling across the continent.) |
| :--- | :--- |
| př̌es +4 | přeprava transporti̊ ruské armády z bývalé Německé demokratické republiky <br> přes Českou republiky ( $=$ the transport of the Russian army from the former <br> DDR over the Czech Republic) |

along The subfunctor along expresses the meaning "along".
The subfunctor along is assigned to the modifications with the DIR2 functor that have one of the following surface forms:

| po+6 | V roce 1997 pravděpodobně projedou první vozidla po dálnici Praha -Plzeň. <br> (=In 1997, first cars will probably go on the motorway Prague-Pilsen.) |
| :--- | :--- |
| podél +2 | Jel jsem podél něj. (=I went along it.) |

around The subfunctor around expresses the meaning "around".
The subfunctor around is assigned to the modifications with the DIR2 functor that have one of the following surface forms:

| kolem +2 | Kolem právni ochrany software se u nás chodí vširok'́ch kruzich. (=In our <br> country one beats around the bush as far as the legal protection of software is <br> concerned.) |
| :--- | :--- |
| okolo +2 | Chodí okolo domu. (=He is walking around the house.) |

betw The subfunctor betw (between) expresses the meaning "between".
The subfunctor betw is assigned to the modifications with the DIR2 functor that have the following surface form:

| mezi +7 | Plechové krabičky aut se plazí po výmolech hliněných cest mezi nevzrušenou |
| :--- | :--- | :--- | zvěrí. (=Little tin boxes of cars are crawling among the potholes of dirt roads among the unexcited animals.)

near The subfunctor near expresses the meaning "near".
The subfunctor near is assigned to the modifications with the DIR2 functor that have the following surface form:

| vedle +2 | A tak se iv tomto oboru stala naše věda popelkou, jen nesměle a spiše zásluhou |
| :---: | :--- | :--- | několika jedinců kráčející vedle civilizovaného světa. (=So our science became a Cinderella even in this field, walking shyly thanks to only a few individuals along the civilized world.)

nr
The subfunctor $n r$ is assigned to all the other modifications with the DIR2 functor that do not have any of the forms listed above.

### 7.13.1.6. The subfunctors with the DIR3 functor

The DIR3 functor (see Section 7.4.3, "DIR3") is assigned the following subfunctors:
basic The subfunctor basic expresses the basic meaning of the DIR3 functor, i.e. the meaning "where to".

The subfunctor basic is assigned to the modifications with the DIR3 functor that have one of the following surface forms:

| adverb | Horní soused v tichosti vyčkal mezi větvemi a opatrně se pak odplizzil domů. (=The upper neighbour waited in silence among the branches and then he sneaked away.) |
| :---: | :---: |
| do +2 | Vypravuje do zahraničí malé skupinky. (=He dispatches small groups abroad.) |
| do čela+2 | Městská konference ČSSD v Českých Budějovicich zvolila do čela své kandidátky advokáta. (=The municipal conference of ČSSD in České Budějovice elected a solicitor to the lead of its ballot.) |
| na+4 | Máme zaměstnance, které občas vysiláme na služební cestu. (=We have employees whom we sometimes send on a business trip.) |
| směrem na+4 | Dalši mimořádný rychlik odjede v 1.23 hod. z pražského hlavního nádraži směrem na Břeclav. (=Another special express train leaves at 1.23 from the Prague Central Station in the direction Břeclav.) |
| směrem do+2 | Včera odpoledne byl na Nuselském mostě pruh směrem do centra normálně průjezdný. (=Yesterday afternoon the downtown lane at the Nuselský bridge was clear.) |


| směrem $\mathrm{k}+3$ | Od února se toho mnoho změnilo, řikká novinář Igor a máchá rukou směrem |
| :--- | :--- | ke křižovatce nedaleko vládní budovy. (=Since February many things have changed, says Igor, a journalist, and he is waving his hand somewhere towards the crossroads not far from the building of the government.)

above The subfunctor above expresses the meaning "above".
The subfunctor above is assigned to the modifications with the DIR3 functor that have the following surface form:

> | nad +4 | $\begin{array}{l}\text { Už odpoledne se vrátila zpět nad hranici } 1100 \text { lir za marku. (=Already in the af- } \\ \text { ternoon it returned back above the limit of } 1100 \text { lira for a mark.) }\end{array}$ |
| :--- | :--- |

behind The subfunctor beh ind expresses the meaning "behind".
The subfunctor behind is assigned to the modifications with the DIR3 functor that have the following surface form:

| $\mathrm{za}+4$ | $\begin{array}{l}\text { Že se za tento plášt }{ }^{\text {Z }} \text { 'schová leccos dalšiho, netřeba připominat. (=It is not necessary } \\ \text { to remind that many other things can be hidden behind this coat.) }\end{array}$ |
| :--- | :--- | :--- |

below The subfunctor below expresses the meaning "below".
The subfunctor below is assigned to the modifications with the DIR3 functor that have the following surface form:

| pod +4 | Dostal se pod auto. (=He got below the car.) |
| :---: | :--- |

betw The subfunctor betw (between) expresses the meaning "between".
The subfunctor betw is assigned to the modifications with the DIR3 functor that have the following surface form:

$$
\begin{array}{|l|l|}
\hline \text { mezi }+4 & \text { Dal to mezi ty drobnosti. (=He put it among the trinkets.) } \\
\hline
\end{array}
$$

The subfunctor elsew (elsewhere) expresses the meaning "elsewhere".
The subfunctor elsew is assigned to the modifications with the DIR3 functor that have the following surface form:

| mimo +4 | Postavil se mimo hrací plochu. (=He stood outside the playing field.) |
| :--- | :--- | :--- |

ext The subfunctor ext (extent) expresses the meaning "to what extent sth is oriented to sth else".

The subfunctor ext is assigned to the modifications with the DIR3 functor that have the following surface form:

$\operatorname{po+4} |$| Čs. vojsko také nikdy neobsadilo celé Těšinsko až po Bílsko, fronta se zastavila na |
| :--- |
| horní Visle u Skočova. (=The Czechoslovak army never occupied the whole Těsín |
| area up to Bilsko, the front stopped at the upper Visla by Skočov.) |

front The subfunctor front expresses the meaning "in front of".
The subfunctor front is assigned to the modifications with the DIR3 functor that have the following surface form:

před+4 | Tím mi ulehčili práci a já mohl předstoupit před lidi. (=They made my work |
| :---: | :--- | easier this way and I could appear in front of the people.)

near The subfunctor near expresses the meaning "near".
The subfunctor near is assigned to the modifications with the DIR3 functor that have the following surface form:
vedle +2 Řadí tradiční vedle banálniho, křiží vysoký i nizkýs styl. (=He puts the traditional next to the trivial, he mixes the high and the low style.)
opp The subfunctor opp (opposite) expresses the meaning "opposite".
The subfunctor opp is assigned to the modifications with the DIR3 that have the following surface form:

| proti +3 | Útok nebyl namíren proti lidem. (=The attack was not aimed at people.) |
| :--- | :--- | :--- |

target The subfunctor target expresses the meaning "target".
The subfunctor target is assigned to the modifications with the DIR3 functor that have the following surface form:

| po+6 | Házel po něm kamením. (=He was throwing stones at him.) |
| :--- | :--- |

The subfunctor to expresses the meaning "to".
The subfunctor to is assigned to the modifications with the DIR3 functor that have one of the following surface forms:

| $\mathrm{k}+3$ | Dotyčn'́ pơjde jinam, ke konkurenci. (=The one in question will go elsewhere, to <br> the competitor.) |
| :--- | :--- |
| $\mathrm{za}+4$ | Zašli jsme do galerie za Petrem. (=We popped in the gallery for Peter.) |

nr
The subfunctor $n r$ is assigned to all the other modifications with the DIR3 functor that do not have any of the surface forms listed above.

### 7.13.1.7. Subfunctory with the EXT functor

The EXT functor (see Section 7.6.5, "EXT") is assigned the following subfunctors:
basic The subfunctor basic expresses the basic meaning of the EXT functor, i.e. the meaning of "extent".

The subfunctor basic is assigned to the modifications with the EXT functor that have one of the following surface forms:

| adverb | Kapitálový trh je pak vyústěním přitomnosti soukromého vlastnictví - bez něj dokonce pozbývá částečně smyslu. (=The capital market is the result of the presence of private ownership, it even partially loses its sense without it.) |
| :---: | :---: |
| do +2 | Co se může dospělému zdát zanedbatelnou záležitostí, naroste v dětské mysli treba $i$ do tragických rozmérů. (=What an adult can consider a negligible matter, can grow to tragic extents in a child's mind.) |
| na+4 | Markest si svoji (ne)solidnost cení na 1209 korun. (=Markest evaluates its (ir)respectability to 1209 CZK) |
| po+6 | Z oblastí, vyčištěných od povstalců, proudí nyní obyvatelstvo po tisícich. (=From the areas that have been cleared of insurgents, civil population is flowing in thousands.) |
| v+6 | České banky totiž nejsou schopny poskytnout dlouhodobý úvěr (na 15 let) ve výśsi čtyř miliard korun. (=Czech banks are not able to provide a long-term credit (for 15 years) of four hundred million CZK.) |
| za+4 | Ale jsou výrobci tepla, kteří je vyrobí za 100 Kč. (=But there are producers of heat energy that are able to produce it for 100 CZK.) |

approx The subfunctor approx (approximately) expresses the meaning "approximately".
The subfunctor approx is assigned to the modifications with the EXT functor that have one of the following surface forms:

| kolem+2 | Náklady se v současnosti pohybují kolem 100 milionů korun. (=Costs are <br> nowadays around 100 mil.CZK.) |
| :--- | :--- |
| okolo+2 | Letos by se měl obrat pohybovat okolo 1,2 miliardy korun. (=This year sales <br> should be around 1,2 milliard CZK.) |

less The subfunctor less expresses the meaning "less than".
The subfunctor less is assigned to the modifications with the EXT functor that have the following surface form:

| pod +4 | Lidís IQ pod 50 jsou již jen desetiny procenta. $(=$ People with the IQ lower than |
| :--- | :--- | 50 rank now only up to several tenths of a per cent.)

more The subfunctor more expresses the meaning "more than".
The subfunctor more is assigned to the modifications with the EXT functor that have one of the following surface forms:

| přes +4 | V'́nosy činily přes 16 miliard korun. (=The sales were more than 16 milliard <br> CZK.) |
| :--- | :--- |
| nad +4 | Lidís inteligencí nad 130 se vyskytuje okolo dvou procent. ( $=$ There are approxim- <br> ately 2 per cent of people with the IQ above 130.) |

nr
The subfunctor $n r$ is assigned to all the other modifications with the EXT functor that do not have any of the surface forms listed above.

### 7.13.1.8. Subfunctors with the LOC functor

The LOC functor (see Section 7.4.4, "LOC") is assigned the following subfunctors:
basic The subfunctor basic expresses the basic meaning of the LOC functor, i.e. the meaning "where".

The subfunctor basic is assigned to the modifications with the LOC functor that have one of the following surface forms:

| adverb | Zde už můžeme váhat, ale ve většině př́padů dojdeme k závěru, že i tyto předměty <br> mohou být pozornosti. (=Here we can already hesitate but in most cases we <br> come to the conclusion that even these subjects can attract attention.) |
| :--- | :--- |
| adjective | První pražské jednání nepřineslo kromé dalšiho zvýšení napětí žádný výrazný <br> výsledek. (=The first Prague negotiation did not bring any significant result <br> apart from another increase in tension.) |
| na+6 | obraz na zdí (=a picture on the wall) |
| $\mathrm{v}+6$ | ubytování $\underline{\text { votelu ( }=\text { accommodation in a hotel) }}$ |

above The subfunctor above expresses the meaning "above".
The subfunctor above is assigned to the modifications with the LOC functor that have the following surface form:

| nad +7 | V neprofesionálním prostředí si lidé opálí jehlu nad plaménkem v karmě a to jim <br> stačí k pocitu, že je sterilní. (=In an unprofessional situation people burn a needle <br> above the flame of a water heater and that is enough to make them feel that it is <br> sterile. |
| :--- | :--- |

abstr The subfunctor abstr (abstract) expresses the abstract meaning "in the field/area".
The subfunctor abstr is assigned to the modifications with the LOC functor that have one of the following surface forms:

| v oblasti +2 | Podle Redla je Hradišt'an voblasti folkloru kapelou ostře sledovanou. (=Ac- <br> cording to Redl Hradištan is a closely watched band in the field of folklore.) |
| :--- | :--- |
| v oboru+2 | Na česky trh vstoupila společnost Sodexho v roce 1992 po Eurestu, který zde <br> začal voboru veřejného stravování pisobit jako vůbec první. (=Sodexho <br> entered the Czech market in 1992 after Eurest, which was the first one to start <br> a business in the field of public boarding.) |

along The subfunctor along expresses the meaning "along".
The subfunctor along is assigned to the modifications with the LOC functor that have one of the following surface forms:

| podél +2 | Podle prvnich zpráv bylo epicentrum otřesů lokalizováno podél západního pobřeží <br> ostrova asi 800 kilometrù severně od Tokia. (=According to the first news the <br> epicentre of the earthquake was located about 800 kilometres north of Tokio <br> along the west coast) |
| :--- | :--- |
| podle +2 | Podle potoka leží vesnice. (=Along the brook there is a village) |

around The subfunctor around expresses the meaning "around".
The subfunctor around is assigned to the modifications with the LOC functor that have one of the following surface forms:

| kolem+2 | Z pálení ukradených peněženek se kolem jejich chalupy linul čmoud. (=There <br> was smoke around their cottage from their burning the stolen wallets.) |
| :--- | :--- |
| okolo+2 | Mohli jsme si sice na splacení dluhu půjčit, to by ale celou situaci okolo <br> pražského závodiště něešilo. (=We could have borrowed some money to pay <br> off the debt, however, that would not have solved the whole situation around <br> the Prague athletic field.) |

behind The subfunctor behind expresses the meaning "behind".
The subfunctor behind is assigned to the modifications with the LOC functor that have the following surface form:
za+7 Podle mechanika neměl Senna optimálně zahřáté pneumatiky, nebot'po kolizi hned na startu jezdili závodnici pět okruhů za vodicim vozem. (=According to the mechanic, Senna did not have his tyres warmed up optimally as straight after the collision at the start the racers were five runs behind the leading car.)
below The subfunctor below expresses the meaning "below".
The subfunctor below is assigned to the modifications with the LOC functor that have the following surface form:

| pod +7 | Moc často jsem tu dirku $-v$ umyvadle, pod vodou podle vzduchového gejzirku - <br> hledal a pak lepil... ( $=$ Very often I looked for the tiny hole in a washbasin under <br> water by a small geyser of air and then glued it.) |
| :--- | :--- |

betw The subfunctor betw (between) expresses the meaning "between".
The subfunctor betw is assigned to the modifications with the LOC functor that have the following surface form:

| mezi+7 | Byl mezi dvěma ohni. (=He was between two fires.) |
| :--- | :--- | :--- |

elsew The subfunctor el sew (elsewhere) expresses the meaning "outside of sth".
The subfunctor el sew is assigned to the modifications with the LOC functor that have one of the following surface forms:

| mimo +4 | Působi mimo Prahu. (=He works outside Prague.) |
| :--- | :--- |
| stranou +2 | Stranou strkanice nezůstává ani tisk. (=Nor the press keeps aside the hustle.) |
| vně+2 | vně složitých diskuzí (=outside complicated discussions) |

front The subfunctor front expresses the meaning "in front of sth".
The subfunctor front is assigned to the modifications with the LOC functor that have one of the following surface forms:

| př̌ed+7 | Tykal mu před lidmi. (=He was on the first name terms with him in front <br> of people.) |
| :--- | :--- |
| tváří v tvář+7 | Stojí tuáŕí v tvář problému. (=He is facing a problem.) |

in
The subfunctor in expresses the meaning "inside".
The subfunctor in is assigned to the modifications with the LOC functor that have the following surface form:

| uvnitř +2 | Právě vedoucí týmu Motorsport Škoda jen pokrčil rameny na otázku, jak dopadlo |
| :--- | :--- | :--- | jednáni uvnitř koncernu. (=It was the leader of the Motosport Skoda team who shrugged his shoulders when asked how the negotiation came out.)

mid The subfunctor mid (middle) expresses the meaning "in the middle".
The subfunctor mid is assigned to the modifications with the LOC functor that have one of the following surface forms:

| prostřed +2 | Prostřed náméstí stála kašna. (=There was a fountain in the middle of the <br> square.) |
| :--- | :--- |
| uprostřed +2 | Biskup zde sloužil pontifikální mši v esperantu - v táborové kapli, kterou se <br> stal indiánský stan teepee uprostřed tábora. <br> ( $=$ The bishop served a pontifical <br> mass in Esperanto - in a camp chapel that was an Indian teepee. $)$ |
| vprostřed +2 | Vprosřed náměstí stála kašna. ( $=$ In the middle of the square there was a <br> fountain.) |

The subfunctor near expresses the meaning "near".
The subfunctor near is assigned to the modifications with the LOC functor that have the following surface form:

| blízko+2 | Hrát se má na budinské straně u Alžbětina mostu, blizko zastávky autobusu č 78. (=It should be played at the Budin side by the Elizabeth bridge, near the bus 78 stop.) |
| :---: | :---: |
| blízko+3 | Zapináme generátor pouze v těch případech, kdy jsou naši pacienti již blizko smrti. (=We switch on a generator only if our patients are near death.) |
| k+3 | Přiklad ke konci statě je správný pouze v případě, že poplatníkovi nebyly stanoveny zálohy na dan̆ z příjmů. (=An example towards the end of the essay is correct only if no income tax deposits have been assigned to the taxpayer.) |
| nedaleko+2 | Procházíme po odkrytém prostranství nedaleko hotelu Holiday Inn. (=We are walking across open air grounds not far from the Holiday Inn hotel.) |
| poblíž+2 | spor o oboru poblizz Hrádečku( = a dispute over a park near Hrádeček) |
| po boku+2 | $V$ poslední době vystupujete často po boku ministri̊. (=Recently you have been seen by ministers' side.) |
| při ${ }^{\text {+ }}$ 6 | Dva mladí Indiáni z kmene Tlingit byli rodovou radou staršich odsouzeni za loupež $k 18$ mésicuim života v absolutním odloučení od lidí, na jednom z ostrovio při jižnim pobřeží Aljašky. (=Two young Indians from the Tlingit tribe were sentenced by the tribal senior counsel for a robbery to 18 months in a complete seclusion on an island by the south coast of Alaska.) |
| u+2 | Největši z nich byl u obce Dubá, kdy vinou zavřeného ložiska kombajnu vznikl požár, který osmnáct požárních sborů likvidovalo čtyřiadvacet hodin. (=The biggest one was near Dubá where a closed bearing of a combine harvester caused fire, which was being extinguished by 18 fire brigades for 24 hours.) |


| v blízkosti+2 | Stačí, když si vyvoláme fotografie pořizené $v$ blizkosti skládek. (=It will <br> suffice to develop the photos taken near the dumps.) |
| :--- | :--- |
| vedle +2 | tisková konference po zápase, která se konala v kuželně vedle libereckého <br> zimniho stadionu ( $=$ the press conference after the match that took place in <br> a skittle ground next to the stadium in Liberec) |

opp The subfunctor opp (opposite) expresses the meaning "opposite".
The subfunctor opp is assigned to the modifications with the LOC functor that have one of the following surface forms:

| naproti +3 | Stojí naproti nádraží. (=He is standing opposite the station.) |
| :--- | :--- |
| proti +3 | Leží proti oknu. (=He is lying opposite the window.) |
| přes +4 | Bydlí přes dvůr. (=He lives across the yard.) |

nr
The subfunctor nr is assigned to all the other modifications with the LOC functor that do not have any of the surface forms listed above.

### 7.13.1.9. Subfunctors with the TWHEN functor

The TWHEN functor (see Section 7.3.1, "TWHEN") is assigned the following subfunctors:
basic The subfunctor basic expresses the basic meaning of functor TWHEN, i.e. the meaning "when".

The subfunctor basic is assigned to the modifications with the TWHEN functor that have one of the following surface forms:

| adverb | Materiálům, které dnes máte $k$ dispozici, předcházel dlouholetý výzkum. (=The materials you are holding in your hand today were preceded by a long-lasting research.) |
| :---: | :---: |
| genitive | Uvedená cena bude předána laureátům dne 19. září 1994 v Hotelu Hilton. (=The laureates will be awarded on September 19, 1994 in the Hilton hotel.) |
| accusative | Mezinárodní golfový profesionální turnaj Czech Golf Open začne na hřišti tento čtvrtek. (=The international golf professional tournament Czech Golf Open starts on the course this Thursday.) |
| temporal modifications without a case | Autor (nar. 1943) je hispanista, překladatel, působív Českém rozhlase. (=The author (born 1943) is a Hispanist, translator, he works in the Czech Radio.) |
| k+3 | Přijdu k ránu. (=I will come towards morning.) |
| když+vfin | Řikali mi tak iv Anglii, a kdyžjsem se octla potom ve škole ve Švýcarsku, dozvěděla jsem se, jak to jméno taky psát. (=In England they also called me this way and later when I found myself in Switzerland I got to know how to write the name too.) |
| na+4 | Takže konečný výsledek a závěry budou hotovy spiše na podzim. (=Thus the final result and conclusions will be ready rather in autumn.) |
| na+6 | Na jařre skonči perestrojka. (=In spring the perestroika will end.) |
| o+6 | Každý rok jsme o Velikonocích prodávali v Praze nebo jiných velkých městech kraslice. (=Every year at Easter we used to sell Easter eggs in Prague or other big cities.) |


| prì+6 | Tyto obavy citím i při projednávání psychologických vyšetřeni. (=I feel these fears even when discussing psychological examinations.) |
| :---: | :---: |
| při příležitosti+2 | Rota majorů-novácků při príležitosti sjezdu vyčistila vojenský prostor. (=A company of major-recruits cleared the military area on the occasion of the congress.) |
| u prôiležitosti+2 | Tiskovinu v nákladu 5000 kusů vydalo mésto u príležitosti svého 850 . výroči. (=The town released the publication in the printing of 5000 on the occasion of its 850 anniversary.) |
| v+4 | V pátek jste absolvovali lékařský zákrok u svého stomatologa. (=On Friday you underwent a surgery at your dentist.) |
| v+6 | V lednu tohoto roku jsme dostali dopis. (=In January this year we received a letter.) |
| v době+2 | Jejich genocida $\mathbf{v}$ době druhé světové války uzavřela naše pokusy o společné soužití. (=Their genocide during World War II finished our attempts of mutual coexistence.) |
| v období+2 | Vobdobí vrcholíciho léta roku 1939 již málokdo v Evropě mohl věřit nadějeplným slovìm britského ministerského predsedy. (=In the time when summer reached its peak in 1939 hardly anybody could trust the promissing words of the British Prime Minister) |
| za+2 | Pracoval za války ve zbrojnim podniku. (=He worked in an armament enterprise during the war.) |

after The subfunctor after expresses the meaning "after".
The subfunctor after is assigned to the modifications with the TWHEN functor that have one of the following surface forms:

| po+6 | Po 14 dnech nepřetržitého dolad'ování byl již stroj k použití. (=After 14 days of incessant fine-tuning the machine was finally ready to use.) |
| :---: | :---: |
| poté, co+vfin | Stát ceny schválí poté, co je prověří. (=The state will adopt the prices after they are checked.) |
| za+4 | Za chvili prišel pan Mitrofanov. (=In a while came Mr. Mitrofanov.) |

approx The subfunctor approx (approximately) expresses the meaning "approximately ".
The subfunctor approx is assigned to the modifications with the TWHEN functor that have one of the following surface forms:

| kolem+2 | Pruvod husitských bojovnikio̊ vyrážíz Prahy směrem do Německa někdy kolem <br> 20.května. ( $=$ The procession of Hussite battlers sets off from Prague for Germany <br> around May 20.) |
| :--- | :--- |
| okolo+2 | Okolo přelomu roku je relativní klid. ( = Around the turn of the year it is relatively <br> calm.) |

before The subfunctor before expresses the meaning " before "of functorTWHEN.
The subfunctor before is assigned to the modifications with functor TWHEN that have one of the following surface forms:

```
než+vfin Jakou povahu jsi měl, než jsi přišel o nohu?(=What were you like before you
    lost your leg?)
```

před +7 Před revolucí bývaly součástí studia praxe.(=Before the revolution practical training in the field was part of the studies.)
begin The subfunctor begin expresses the meaning "at the beginning".
The subfunctor begin is assigned to the modifications with the TWHEN functor that have one of the following surface forms:

| počátkem+2 | Zatím se firma od svého vzniku počátkem roku 1992 stále rozrůstá. (=The <br> company has been expanding since its foundation at the beginning of 1992.) |
| :--- | :--- |
| začátkem+2 | Olejomalbu jste mohli začátkem února koupit za 34600 korun. ( $=$ An <br> oilpainting could be bought for $34600 ~ C Z K ~ a t ~ t h e ~ b e g i n n i n g ~ o f ~ F e b r u a r y) ~$. |

betw The subfunctor betw (between) expresses the meaning "between".
The subfunctor betw is assigned to the modifications with the TWHEN functor that have the following surface form:

| mezi +7 | hudba v přestávkách mezi gamy (=music in the breaks between the games) |
| :--- | :--- | :--- |

The subfunctor end expresses the meaning "at the end".
The subfunctor end is assigned to the modifications with the TWHEN functor that have one of the following surface forms:

| koncem+2 | Koncem roku bylo bez práce 185000 osob. (=At the end of year 185000 <br> people were unemployed.) |
| :--- | :--- |
| na závěr+2 | Na závěr každé půlnoční štáry se totiž měl dostavit primátor a nechat se s <br> úlovkem fotografovat. ( $=$ At the end of each midnight sweep the city mayor <br> was to come and have himself photographed with the catch) |
| v závěru+2 | V závěru poločasu dala Sparta branku, ale pro postavení mimo hru nebyla <br> uznána. ( = At the end end of the half Sparta scored but the goal was cancelled <br> because of offside. |
| závěrem+2 | Závěrem srpna ziskal závod Pacovských strojíren certifikát německé zkušebny <br> Tüf Bayern. (=At the end of August the enterprise of Pacov machine works <br> gained a certificate of the German testing plant Tüf Bayern) |

The subfunctor flow expresses the meaning "in the course of".
The subfunctor flow is assigned to the modifications with the TWHEN functor that have one of the following surface forms:

| postupem+2 | Jejich návrh měl být harmonizován s obdobným předpisem, který se však <br> postupem času velmi mění. (=Their suggestion was to be harmonized with <br> a similar regulation which, however, has changed substantially in the course <br> of time.) |
| :--- | :--- |
| v průběhu+2 | Omezování centrální cenové regulace bude v průběhu roku ž̌ejmě <br> pokračovat. (=The restriction on central regulation of prices will apparently <br> go on in the course of the year.) |

mid The subfunctor mid (middle) expresses the meaning "in the middle".

The subfunctor mid is assigned to the modifications with the TWHEN functor that have the following surface form:

| uprostřed +2 | Ještě uprostřed minulého týdne jsem si nebyla jistá, zda budu vůbec startovat. <br> (=Still in the middle of the last week I was not sure whether I would start at <br> all. $)$ |
| :--- | :--- |

The subfunctor $n r$ is assigned to all the other modifications with the TWHEN functor that do not have any of the surface forms listed above.

### 7.13.2. Attribute with the meaning of "state"

To describe the meaning of certain modifications more precisely a special attribute with the meaning of state was introduced: is_state. The attribute is_state is assigned to all nodes with adjunct functors.

The verb být (=to_be) but also full verbs and nouns are modified by a whole range of prepositional modifications that generally express the meaning of state. Together with the governing verb they express the meanings of "being in a state" or "getting into a state". Example:

Pacient byl při smyslech. (=The patient was in full possession of his senses.)
Upadl do nesnází. (=He fell into trouble.)
člověk ve špatné náladě ( $=$ a man in a bad humour)
None of the adjunct functors expresses the meaning of these modifications exactly. Establishing a new functor would not solve the problem sufficiently. There are many semantic differentiations within this general meaning of state. When establishing a new functor it would be necessary to work with many subfunctors. Therefore, it is necessary to consider this type of free modification from different perspectives:

- from the perspective of fixedness of the prepositional expressions,
- from the perspective of the possibility to make the $+/-$ distinction.

Cf.:

- Je v provozu.(=It is in operation.)
- Je mimo provoz. (=It is out of operation.)
- Je na řadě. (=It is his turn.)
- Není na řadě. (=It is not his turn.)
- Pacient byl při smyslech.(=The patient was in full possession of his senses.)
- Pacient byl v bezvědomí. (=The patient was unconscious.)
- Má před operací. (=He will be operated on.)
- Je po operaci. (=He is after a surgery.)

Prepositional modifications with the meaning of state have been assigned the functor that expresses the closest meaning (most frequently the functors LOC, TWHEN, MANN) and we establish the attribute is_state the values of which are 0,1 . The modifications with the meaning of state are assigned the value 1 (see also Table 7.4, "Values of the is_state attribute").

## Table 7.4. Values of the is state attribute

0 the node represents a modification that does not have the meaning of a state
1 the node represents a modification with the meaning of a state that cannot be represented properly just by the assigned functor and its subfunctors

Examples:
Je v krizi.LOC [is_state=1] (=He is in a crisis)
Byl po operaci.TWHEN [is_state=1] (=lit. (He) was after (a) surgery.)
člověk ve špatné náladě.RSTR [is_state=1] (=lit. (a) man in (a) bad humour)
Zůstal na živu.MANN [is_state=1] (=lit. (He) stayed alive.)
Upadl do nesnází.DIR3 [is state=1] (=lit. (He) fell into trouble.)
Modifications with the general meaning of state can also be valency modifications. For more on this see Section 6.2.3.1.6, "Valency modifications expressing that something is in a particular "state"".

## Chapter 8. Specific syntactic constructions

This chapter describes rules for the annotation of those syntactic constructions whose annotation is not covered by the basic rules which are given mainly in chapter Chapter 6, Sentence representation structure. These are annotation rules for constructions signifying comparison and restriction, and rules for the annotation of proper names, addresses etc. To represent the meaning of these specific constructions, further attributes, further t-lemma substitutes and further selected constraints on the structure of the tectogrammatical tree are frequently introduced.

The individual sections vary in their nature: the first section contains guidelines for the determination of syntactic (and semantic) part-of-speech categories, particularly in the case of pronouns and numerals. The subsequent sections treat, as thoroughly as possible in all cases, a particular type of syntactic construction (defined semantically according to the part of speech). In particular, differences in the annotation of various sub-types of a given construction are described. At the end of the chapter are found several sections which summarise the annotation rules for a particular group of expressions (numerals, conjunctions, punctuation), which are introduced separately elsewhere, in different parts of the manual. The last section introduces specific rules for the representation of parts of texts identified by graphic symbols (particularly quotation marks).

### 8.1. Noun vs. adjective

In the present section, the rules are discussed for determining whether an expression is to be considered a syntactic noun, or adjective. This is important especially in the cases potentially involving ellipsis of the governing noun (see Section 6.12.1.2, "Ellipsis of the governing noun").

For the relation between syntactic nouns and adjectives and semantic nouns and adjectives (the sempos grammateme), see Section 5.2, "Semantic parts of speech".

### 8.1.1. Nominalized adjectives

Some formally adjectival expressions have the function of a noun. These are e.g.:

- bytná (=landlady), hajný (=gamekeeper), hostinský (=publican), (nad)lesní (=forester), pokladní (=cashier), pokojská (=chambermaid), ponocný (=night watchman), vrchní (=waiter), výčepní (=barman), účetní (=accountant).
- Novákovi(c) (=Nováks (=family)), Černých (=Černýs (family)).
- krušovické (=krušovice (beer)), plzeňské (=plzeň (beer)), hovězí (=beef), telecí (=veal), vepřová (=pork), žitná (=rye brandy).
- cestovné (=travelling expenses), nemocenská (=sickness benefit), odlučné (=separation allowance), odstupné (=indemnity), výkupné (=ransom), výpalné (=protection money), kapesné (=pocket money), taneční (=dancing lessons), stravné (=subsistence allowance).
- cestující (=passenger), hladový (=hungry), kolemjdoucí (=passer-by), malomocný (=leprous), nemocný (=ill), neslyšicí (=deaf), obžalovaný (=(the) accused), odsouzený (=convicted (man)), podezřelý (=suspect), postižený (=disabled person), pracující (=workerlemployee), přednášející (=lecturer), přibuzný (=relative), raněný (=injured), studující (=student), vedouci (=leader), véřicí (=believer), závislý (na drogách) (=drug addict), žalovaný (=defendant).
- adjectives in idioms: byl v úzkých (=be in a tight spot; lit. in narrow), platil hotovými (=pay cash; lit. by ready), přišel s veselou (=he came back in high spirits; lit. with chierful), t'al do živého (=cut
sb to the quick; lit. into alive), s dobrou se potázal (=it turned out all right for him; lit. with good (he) ended).

This is an open class of words. The list is not complete.
The node for the nominalized adjective is assigned a functor according to its position in the sentence. (These cases involve no ellipsis of the governing noun.)

NB! Superlative forms of adjectives are not considered nominalized adjectives. In sentences like Budou tam jen nejlepši. (=Only the best are going to be there), nejlepši is a syntactic adjective. In this case, there is ellipsis (of the governing noun) involved in the sentence (see Section 6.12.1.2, "Ellipsis of the governing noun").

### 8.1.2. Pronouns in the role of a syntactic adjective or noun

For the distribution of pronouns into the syntactic (and semantic) nouns and adjectives, see Section 5.2, "Semantic parts of speech". In the following, we are giving the rules for determining whether the following pronouns are syntactic nouns, or adjectives: ten (=this) (ta, to), takový (=such), který (=which), jaký (=what/which) and possessive pronouns.

The pronoun"ten". The pronoun ten (ta, to) is either a syntactic noun, or adjective; following the rules:

- "ten" as a syntactic noun.

Ten is considered a syntactic noun in the following positions:

- "ten" standing on its own.

If the pronoun ten is used on its own (without a governing noun) and alternates with the pronouns on / onen it is considered a syntactic noun. The alternation with on is more natural with animate forms but, in principle, the rule holds for inanimate forms as well.

The node for ten is assigned a functor according to its position in the sentence.
Examples:
Mluvil jsem s kolegy a tí.ACT mají stejný názor. [sempos = n. pron.def. demon] (=I talked to my colleagues and they (lit. those) share my view) Fig. 8.1

Byl jsem u náměstka a ten.ACT od nás nic požaduje. [sempos = n.pron.def.demon] (=I went to see the deputy and he (lit. that) wants nothing from us)

Potkal jsem vašeho syna. Ten.ACT vypadal smutně. [sempos $=\mathrm{n}$. pron. def. demon] ( $=1$ met your son. He (lit. that) looked so sad)

Znám vaše rodiče. Ti.ACT mají pěkný domek. [sempos = n.pron.def. demon] (=I know your parents. They (lit. those) have a nice house)

Koupil dědečkovi nové pantofle. TY. ACT vypadaly pěkně. [sempos = n. pron. def. demon] (=He bought his granddad new slippers. They (lit. those) looked very nice)

Ze stolu spadl ten.ACT, který byl na kraji. [sempos = n.pron. def. demon] (=The one (lit. that) that was situated by the edge of the table fell down)

Těm.ADDR, kteří nepřisisli, nedám zápočet. [sempos = n.pron.def.demon] (=Those who didn't come won't get the credit)

Poskytněte pomoc těm.ADDR, kteří to potřebují. [sempos = n. pron. def. demon] (=Help those who need it)

Stavby se odlišovaly od těch.PAT , u jejichž zrodu stála avantgarda. [sempos = n.pron.def.demon] (=The buildings were different from those built in the avant-garde era)

## - "ten" + adjective.

If the pronoun ten precedes an adjective (that is not nominalized; see Section 8.1.1, "Nominalized adjectives"), it is considered a syntactic noun.

The node representing the adjective has the RSTR functor and depends on the node for the pronoun ten.

## Examples:

První úloha je snadná, ta.ACT druhá.RSTR je obtižná. [sempos = n.pron. def. demon] (=The first task is easy, the second (one) is difficult) Fig. 8.2

Ty modré pantofle jsou hezčí než ty.ACT zelené.RSTR. Nejhezčí jsou ale ty. ACT červené.RSTR [sempos = n.pron.def.demon] (=The blue slippers are nicer than the green (ones). But the red (ones) are the nicest)

Rovnal knihy na poličku: dozadu dával ty.PAT vázané.RSTR , dopředu ty.PAT lepené.RSTR [sempos $=\mathrm{n}$. pron.def.demon] (=He was arranging the books in the shelf: he placed the hardback ones at the back and the softback ones at the front)

Vezmi si s sebou jen to. PAT nejnutnější.RSTR [sempos = n.pron. def. demon] (=Take just the most important stuff with you)

## - "ten" as a syntactic adjective.

The pronoun ten is considered a syntactic adjective in the following position:

- "ten" + noun.

If the pronoun ten precedes a syntactic noun (i.e. also a nominalized adjective, numeral or pronoun), it is considered a syntactic adjective.

The node representing ten has the RSTR functor and depends on the node for the following noun.

Examples:
Poskytl pomoc těm.RSTR Polkám.ADDR, které to potřebovaly. [sempos = adj.pron.def.demon] (=He helped those Polish women who needed that) Fig. 8.3

Chceme splnit sny těm.RSTR druhým.ADDR [sempos = adj.pron.def.demon] (=We want to fulfil other people's dream) Fig. 8.4

Ti.RSTR tvoji rodiče.ACT mají pěknýdomek. [sempos = adj.pron.def.demon] (=Your parents (lit. those your parents) have a nice house)

Ty.RSTR modré pantofle.ACT jsou hezké.[sempos = adj. pron. def.demon] (=The blue slippers are nice)

Do nemocnice přijali jen toho.RSTR raněného.PAT [sempos = adj.pron.def.demon] (=They only accepted the injured one in the hospital)

Ti. RSTR dva.ACT jsou líní. [sempos = adj. pron. def.demon] (=Those two are lazy)
Ti.RSTR všichni.ACT tu chtějí zůstat. [sempos = adj.pron. def. demon] (=All these people want to stay)

For coreference with the pronoun ten see Section 9.3, "Textual coreference" and Section 9.5.2.3, "No (textual) coreference with the pronoun "ten" used as a noun".

For ten as a supporting expression see Section 6.5.3.1, "Correlative pairs with the supporting expression "ten'".

Figure 8.1. "Ten" as a syntactic noun


Mluvil jsem s kolegy a ti mají stejný názor. (=lit. (I) talked AUX with colleagues and those have same opinion)

Figure 8.2. "Ten" as a syntactic noun


První úloha je snadná, ta druhá je obtižná. (=lit. First task is easy, that second is difficult)

Figure 8.3. "Ten" as a syntactic adjective


Poskytl pomoc těm Polkám, které to potřebovaly. (=lit. (He) provided help to_those Polish_women which it needed)

Figure 8.4. "Ten" as a syntactic adjective


Chceme splnit sny těm druhým. (=lit. (We) want to_fulfil dreams to_those others)
The pronoun "takovy". As for the pronoun takovy' that is standing on its own in the sentence (without a potential governing noun), it is considered a syntactic noun or adjective on the basis of the particular meaning and context.

## Cf.:

- Jsou tací.ACT, kteří rádi hladovějí.RSTR (=There are such (people) who like to starve)

The pronoun takový is considered a syntactic noun here.

- Máme hodně věcí, ale $\leq$ takové $>\{v e ̌ c . P A T\}$, které potřebujeme.RSTR, nemáme. (=We've got a lot of things but those that we need we haven't got)

Takový is considered a syntactic adjective here. In this case, there is ellipsis (of the governing noun) involved in the sentence (see Section 6.12.1.2, "Ellipsis of the governing noun").

If the pronoun takový precedes a syntactic noun (i.e. also a nominalized adjective, numeral or pronoun), it is considered a syntactic adjective.

For takový as a supporting expression see Section 6.5.3.2, "Correlative pairs with the supporting expression "takový"".
!!! The sempos attribute of takový is always adj.pron. def. demon. So far, the distinction semantic nouns vs. adjectives has not been carried out. See also Section 5.6.2.2, "Definite pronominal semantic adjectives: demonstratives".

The relative pronouns "který" and "jaký". The relative pronouns který and jaký are considered syntactic (and semantic) nouns, or adjectives depending on whether they introduce relative, or content clauses (see Section 6.5.2, "Content vs. relative clauses"; Section 5.6.1.4, "Indefinite pronominal semantic nouns" and Section 5.6.2.3, "Indefinite pronominal semantic adjectives"):

- "který" and "jaký" as syntactic nouns.

If který or jaky stands for a noun modified by the dependent (relative) clause, it is a syntactic (and semantic) nouns.

The node representing který or jaky is assigned a functor according to the type of dependency it has w.r.t. the governing node.

Examples:
Karel dostal knihu, jakou/kterou.PAT si přál.RSTR [sempos=n.pron.indef] (=Karel got the book (which) he wanted) Fig. 8.5

Př̌idělili nám vedouciho, který/jaký.ACT se jim hodil.RSTR [sempos=n.pron. indef] (=They assigned us a boss that was convenient for them) Fig. 8.6

Vedoucí, jakého/kterého. PAT nám přiděli.RSTR, nestojí za nic. [sempos=n.pron.indef] (=The boss (which) they have assigned us is not any good) Fig. 8.7

Informace, která.ACT je.RSTR nejdůležitěejsí, nesmí být zapomenuta. [sempos=n. pron.indef] (=The information that is the most important mustn't be forgotten)

## - "který" and "jaký" as syntactic adjectives.

In constructions in which the pronouns který or jaký introduce a content clause the pronouns který a jaký are regarded as syntactic (and semantic) adjectives.

The node for který or jaky' depends on its governing noun and has the RSTR functor. If the governing noun is not present in the surface structure, the ellipsis is going to be represented according to the rules in Section 6.12.1.2, "Ellipsis of the governing noun".

Examples:
Otázka, jakou/kterou.RSTR knihu.PAT si přejete.PAT, nezazněla. [sempos=adj. pron.indef] (=The question which book you wish was not asked) Fig. 8.8
(Přeje si knihu.) Vím, kterou/jakou.RSTR \{knihu.PAT \} si přeje.PAT [sempos=adj. pron. indef] (=(He wants a book) I know which one) Fig. 8.9

Informace, která.RSTR \{\#EmpNoun.ACT \} je.PAT nejdůležitěǰ̌í, nesmí být zapomenuta. [sempos=adj.pron.indef] (=The information which one is the most important mustn't be forgotten)

NB! Constructions with the pronoun jaky in the nominal part of a verbonominal predicate are analyzed differently.

The pronoun jaky is considered a syntactic (and semantic) adjective here (although it is introducing a relative clause). No node (for a governing noun) is inserted into the structure in constructions with verbonominal predicates.

Example:
Trh prostě počitá s člověkem, jaký. PAT opravdu je. [sempos=adj. pron.indef] (=The market takes into account people as (lit. which) they really are) Fig. 8.10

The interrogative pronouns "který" and "jaký". The interrogative pronouns ktery' and jaky' are taken to be syntactic (and hence semantic) adjectives.

The node for který or jaký depends on its governing noun and has the RSTR functor. If the governing noun is not present in the surface structure, the ellipsis is going to be represented according to the rules inSection 6.12.1.2, "Ellipsis of the governing noun".

## Examples:

(Prál bych si obrázek.) A který.RSTR \{ obrázek.PAT\} si přeješ? [sempos=adj.pron.indef] (=(I would like a picture) And which one would you like?) Fig. 8.11

Jaký.RSTR si přeješ obrázek? [sempos=adj.pron.indef] (=What picture would you like?)
$\underline{\text { Kter }}$.RSTR obrázek jsi dostal? [sempos=adj. pron.indef] (=Which picture did you get?)
Figure 8.5. "Který" as a syntactic noun


Karel dostal knihu, kterou si přál. (=lit. Karel got book which REFL (he) wished)

Figure 8.6. "Jaký" as a syntactic noun


Přidělili nám vedoucího, jaký se jim hodil. (=lit. (They) assigned us boss which REFL to_them was_convenient)

Figure 8.7. "Jaký" as a syntactic noun


Vedoucí, jakého nám přidělí, nestojí za nic. (=lit. Boss which (they) us will_assign is_not_worth for nothing)

Figure 8.8. "Jaký" as a syntactic adjective


Otázka, jakou knihu si přeje, nezazněla. (=lit. Question which book REFL (he) wishes was_not_asked)

Figure 8.9. "Který" as a syntactic adjective

(Přeje si knihu.) Vím, kterou si přeje. (=lit. ((He) wishes REFL book) (I) know which REFL (he) wishes)

Figure 8.10. "Jaký" as a syntactic adjective


Trh prostě počitá s člověkem, jaký opravdu je. (=lit. Market simply counts with man what (he) really is)

Figure 8.11. "Který" as a syntactic adjective

(Přál bych si obrázek.) A který si přeješ? (=lit. ((I) would_like - REFL picture) And which REFL (you) wish?)

Possessive pronouns. Possessive pronouns are always considered syntactic adjectives except for the cases like Pojedeme k našim. (=We'll visit our parents (lit. ours)) or Jak se mají vaši? (=How are your parents (lit. yours)?), where naši and vaši play the role of syntactic nouns.

### 8.1.3. Numerals in the role of a syntactic adjective or noun

For the distribution of numerals between syntactic (and semantic) nouns and adjectives see Section 5.2, "Semantic parts of speech".

The annotation rules for numerals, including the rules for determining their part-of-speech characteristics are to be found in Section 8.10, "Numbers and numerals".

### 8.2. Constructions with the verb "být" (=to_be)

This section gives a summary of the rules for the annotation of constructions with the verb být (=to be).

### 8.2.1. Types of construction with the verb "být"

For the verb být (=to be) we distinguish:

- existential "být" (see Section 8.2.1.1, "Existential "být""),
- substitute "být" (see Section 8.2.1.2, "Substitute "být""),
- copula "být" (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)"),
- phraseological "být" (see Section 8.2.1.4, "Phraseological "být" (verbal idiom)").

The verb být (=to be) in single-constituent constructions is treated separately (see Section 8.2.1.5, ""Být" in single-constituent constructions").

### 8.2.1.1. Existential "být"

As the existential být The existential verb být (=to be) is designated as meaning that "something is/is not, exists/does not exist".

The valency of existential "být". In the valency frame of existential "být" there is only an Actor. Any free modification is optional in the case of this "být".

Existential "být" expresses two meanings:

- simple existence/non-existence of an event or a state.

Examples:
Strašidla.ACT na světě nejsou. (=There are no ghosts in the world.) Fig. 8.12
Není tu žádných chyb.ACT (=There are no mistakes here.)
Není co dělat.ACT (=There is nothing to do.)
Kdysi tu bylo na tisice.АСТ druhů. (=There were once thousands of species.)
Je pět hodin.ACT (=It is five o 'clock.)
Je poledne.ACT (=It is noon.)
Není doba.AСТ na to dělat si legraci. (=This is no time for joking.)

- the cessation of some activity or state.

Examples:
Je po zábavě.ACT (=The party is over.)
Při nedostatku motivace je po snaze.ACT (=Where there is insufficient motivation there is no more effort.)
!!! For purposes of simplifying the annotation the valency frame for existential "být" in the meaning of simple existence/non-existence is for the time being amalgamated with the similar valency frame for substitute "být" (see Section 8.2.1.2, "Substitute "být"").

Figure 8.12. Existential "být" (=to_be)


Strašidla na světě nejsou. (=lit. Ghosts in (the) world are_not)

### 8.2.1.2. Substitute "být"

Substitute být is the verb být (=to be) in conjunction with some modification, where být does not signify mere existence, but stands for some full verb which can be substituted for it. This involves mainly combinations of the verb být with nouns and adjectives in cases other than the nominative and instrumental, with prepositional phrases and with adverbs.

Valency of substitute "být". Two basic groups of substitute verbs "být" are distinguished, according to the nature of the modifications (other than the Actor) with which the verb být is associated:

- být is associated with modifications which have the character of an argument.

These are cases where the modifications of the full verb which the verb být stands for have the character of one of the arguments. These modifications are then also represented with functors for the arguments in the valency frames of the substitute "být". Cf.:

- Rukavice.ACT mu.РAT nejsou. (=The gloves do not fit him.)

The verb být is substituted in the construction for substantive verbs such as to fit, to suit, and therefore it has a frame analogous with those for Actor and Patient:

АСТ(.1) PAT(.3)
It is not always possible to determine categorically for which substantive verb the verb být is substituted; in such cases the valency frames are determined intuitively.

NB! In these valency frames of the verb být the principle of shifting is applied (see Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)").

- být (=to be) is associated with modifications which have the character of adjuncts.

It has been shown that the verb být can be followed by modifications with the meaning of all (ad)verbal and some (ad)nominal functors (APP) for adjuncts.

## Examples:

Jirka je na zahradě.LOC (=George is in the garden.) Fig. 8.13

## Úkol byl na pátek. TOWH (The assignment was for Friday.)

To je pro mé.BEN (=That is for me.)
Je pozdě. TWHEN cokoliv dělat. (=It is too late to do anything.)
Vystoupení bude bez ohledu na počasí.REG (=The performance will take place regardless of the weather.)

Zájezd byl prostřednictvím kanceláře.MEANS (=The excursion was arranged by the office.)
To bylo schválně.CAUS (=That was on purpose.)
To bylo o chlup.DIFF (=That was close.)
Chaloupka je jako dlan̆.CPR (=The cottage is tiny.)
Tento nástroj je na stáčení. AIM vína. (=This instrument is for bottling wine.)
Byli jsme to obhlizet. INTT (=We have been to inspect it.)
Zahrada je souseda.APP (=The garden is the neighbour's.)
NB! Modifications with the meaning of the functor ORIG are treated here as adjuncts (similarly as with nouns - see Section 6.2.3.2.3.2, "Origo as a modifier of nouns"). Cf.:

Nádobky jsou z plechu.ORIG (=The bowls are of metal.)
Z Evy.ORIG je lékařka. (=Eva has become a doctor.)
However, in a particular case it is not always possible to determine categorically for which substantive verb the verb být (=to be) is substituted, so as to deduce the functor of the adjunct and to determine whether the relevant modification is obligatory or optional.
!!! For the time being, therefore, a single universal valency frame, containing only the Actor, has been established for all substitute verbs "být" associated (only) with adjuncts (adjuncts are shown for this frame only as examples of typical modifications). To simplify annotation, this valency frame has been amalgamated with the similar valency frame for existential "být" signifying simple existence/non-existence (see Section 8.2.1.1, "Existential "být"").

NB! The verb být is followed by many adjuncts with the general meaning of a "state/condition" (on this, see Section 7.13.2, "Attribute with the meaning of "state""). For example:

Byla v jiném stavu.LOC [is_state=1] (= She was "in another condition". (euphemism for pregnant))

NB! If the expressions to (=that) or ono (=it) occur in these constructions, the nodes representing these expressions have the functor INTF; for example:

To.INTF $k$ lesu je to.ACT daleko. (=emphatic: It is a long way to the forest.)

Figure 8.13. Substitute "být"

```
O
root
byt.enunc
f_PRED
v decl.disp0. ind
proc.it0.res0.sim
Jirka zahrada
t_ACT f_LOC.basic
n.denot n.denot
anim.sg fem.sg
person_name
```

Jirka je na zahradě. (=lit. George is in (the) garden.)

### 8.2.1.3. Copula "být" (verbonominal predicate)

Copula být is the verb být which is part of a complex predicate identified with the attribute "verbonominal".

By a verbonominal predicate is meant a combination of the verb být (which in a sentence mainly carries the grammatical information) with some other word carrying the main lexical meaning of the entire complex predicate (on complex predicates see Section 6.9, "Multi-word predicates").

In verbonominal predicates we distinguish:

- a verbal part.

The verbal part of a verbonominal predicate comprises a copula "být".

## - a non-verbal part.

The non-verbal part of a verbonominal predicate comprises a semantic adjective or a noun in the nominative or the instrumental. On a secondary level, the non-verbal part may also be expressed by a noun in the genitive, an infinitive, a dependent clause, an adverb or even by an interjection.

A verbonominal predicate expresses a broad spectrum of meanings: identity of Actor and Patient, qualification, classification and quantification.

Examples:
Kočka je savec.PAT (=The cat is a mammal.) Fig. 8.14
Lev je králem. PAT zvírat. (=The lion is king of the beasts.)
Jist je obřad.PAT (=Eating is a ritual.)
Prohrát není zádnou hanbou. PAT (=There is no shame in losing.)
Je svobodným rozhodnutím. PAT , jestli pojedu. (=Whether I go is a matter of free choice.)
Jirka je hodný.PAT (=George is good.)

Byli jsme tři.PAT (=There were three of us.)
Dětí je pět.PAT (=There are five children.)
Chlapcí je hromada. PAT (=There are loads of boys.)
To je moc. PAT (=That is too much.)
Památky jsou staršiho původu.PAT (=The monuments are of older origin.)
Muž je vysoké postavy. PAT (=The man is tall in stature.)
Je vidět. PAT Sněžka. (=Sněžka can be seen.)
Končit není umřít.PAT (=To finish is not to die.)
Jeho výklad je, že zahrají.PAT (=According to him, they will play.)
To je fuk.PAT (=That doesn't matter.)
NB! The boundary between existential and copula "být" is sometimes associated with word order in a sentence. Cf.:

- constructions with existential "být":
- Je hodně problémů.АСТ (=There are lots of problems.)
- Zlí lidé.ACT nejsou. (=There are no evil people.)
- constructions with copula "být" (with a verbonominal predicate):
- Problémů.АСТ je hodně.PAT (=There are problems in plenty.)
- Lidé.ACT nejsou zlí.PAT (=People are not evil.)

Valency of copula "být". Copula "být" has in its valency frame an Actor and a Patient. Here, the Patient comprises a broad spectrum of meanings which the verbonominal predicate can express.

Representation of the verbonominal predicate. The verbonominal predicate is represented in the tectogrammatical tree by two nodes: by a node representing the verbal part of the verbonominal predicate and by a node representing the non-verbal part of the verbonominal predicate. The functor of the node representing the verbal part is determined by the function of the entire complex predicate in the sentence structure. The node is assigned a valency frame for copula "být". The node representing the non-verbal part has the functor PAT and is represented as a direct daughter of the node for the verbal part (cf. Fig. 8.14). The congruity of the two constituents is not reflected in any specific way (other than by the selected valency frame).

NB! Predicates like být veselý a štastný (=to be cheerful and happy); je otcem i dědečkem (=he is a father and a grandfather) are represented as one verbonominal predicate with co-ordination (apposition) of the non-verbal parts. This is an exception, because for the other complex predicates the rule has been adopted that the dependent parts of a complex predicate are not co-ordinated (or are not in apposition) and that they are always treated as a paratactic connection of several complex predicates (with ellipsis of the governing verbal part).

On ellipsis of complex predicates see Section 6.12.1.1.1, "Textual ellipsis of the governing verb".

Figure 8.14. Verbonominal predicate


Kočka je savec. (=lit. (The) cat is (a) mammal.)
Sub-type of quasi-modal verbs. The core verbonominal predicates are complex predicates which do not carry any modal or phasal meaning (cf. the above examples). Quasi-modal verbs with a verbal part formed by the verb být (=to be) and a non-verbal part formed by a noun or an adjective with modal meaning are also treated and represented as a sub-type of verbonominal predicates (see also Section 6.9.2.1, "Quasi-modal and quasi-phase verbs"). For example:

```
být schopný.PAT (=to be capable)
```

být možné.PAT (=to be possible)
být povinností.PAT (=to be an obligation)
The rules described above apply to the representation of both core verbonominal predicates and the sub-type of quasi-modal verbs.
"Být" + predicative adverb. Only one specific type of quasi-modal verbs is singled out amongst verbonominal predicates (see also Section 6.9.2.1, "Quasi-modal and quasi-phase verbs"): combinations of the verb být with adverbials expressing modality, attitude, evaluation. Such expressions are traditionally called predicative adverbs. These expressions do not conform to the categorisation of core verbonominal predicates adopted above, in either semantic or formal terms, and they are therefore represented by distinct valency frames. The node for the non-verbal part (adverb) is assigned the previously introduced functor CPHR (not the functor PAT). The Actor of these predicates takes the form primarily of the infinitive verb.

Examples:
je nutno.CPHR (=it is necessary)
je možno.CPHR (=it is possible)
je zatěžko.CPHR (=it is difficult)
je třeba.CPHR (=it is necessary)
!!! In the case of predicative adverbs, neither the value of the grammateme sempos (nor the morphological tag) is consolidated with the value of the adverb.

Quasi-modal verbs are frequently complex control predicates (see Section 9.2.4.4.4, "Infinitive dependent on the verbal part of a verbonominal control predicate").

### 8.2.1.4. Phraseological "být" (verbal idiom)

Phraseological být is the verb být (=to be), comprising the governing part of verbal idioms (see Section 6.8, "Idioms (phrasemes)").

By phraseological verbs "být (=to be)" is meant a combination of the verb být (=to be) with certain prepositional groups, with prepositions themselves and other constructions with phraseological meaning.

Examples:
Smlouvy jsou pro kočku.DPHR (=Treaties are worthless.) Fig. 8.15
Obavy nejsou na mistě.DPHR (=Misgivings are inappropriate.)
Seznamy jsou k mání.DPHR (=Lists are available.)
Po práci byly za vodou.DPHR (=After work they were fine.)
Je na pováženou.DPHR , do jaké miry to platí. (=How far this is true is a serious matter.)
Nebude na škodu.DPHR postupovat pomalu. (=It will do no harm to proceed slowly.)
Je vobraze.DPHR (=He/She is informed)
Valency of phraseological "být". In accordance with the rules for constituting valency frames for phraseological meanings of verbs (see Section 6.2.2.2, "Valency frames of idiomatic expressions (phrasemes) and complex predicates") a special valency frame is established for each verbal idiom with the verb být. Cf.:

- Student byl hned vprachu.DPHR (=The student immediately disappeared.)

The valency frame for this idiom with the verb být:

```
ACT(.1) DPHR(v-1[prach.S6])
```

Verbal idioms with the verb být are represented in the tectogrammatical tree according to the basic rules for the annotation of idioms introduced in Section 6.8, "Idioms (phrasemes)" (cf. Fig. 8.15).

Figure 8.15. Phraseological "být"


Smlouvy jsou pro kočku. (=lit. Treaties are for cat.)

### 8.2.1.5. "Být" in single-constituent constructions

Single-constituent constructions with the verb být (=to be) are of two types:

- impersonal constructions with no Actor (see Section 8.2.1.5.1, "Impersonal usage of the verb "být""),
- constructions of "personal experience" with an Actor in the dative (see Section 8.2.1.5.2, "Constructions of "personal experience" with an Actor in the dative").


### 8.2.1.5.1. Impersonal usage of the verb "být"

Constructions with the verb být (=to be) expressing certain natural phenomena and states, external circumstances of place, time, dimension or manner are constructions in which být is used impersonally, i.e. it has no Actor.

The valency frames of the verb být are established in such cases exclusively by the relevant obligatory adjuncts. Cf.:

- Do odjezdu bylo dlouho.THL (=There was a long time to go before the departure.)

The valency frame for this meaning of the verb být (=to be):
THL(*)
Examples:
Je horko.MANN (=It is hot.) Fig. 8.16
K lesu je daleko.EXT (=It is a long way to the forest.) Fig. 8.17
Není nejhůřre.MANN (=It is not so bad.)
Je tam útulno.MANN (=It is cosy there.)
Je pod mrakem.MANN (=It is overcast.)
Je na déśst.'MANN (=It looks like rain.)

NB! Only those constructions in which natural phenomena and states, external circumstances of place, time, dimension or manner are expressed by prepositional phrases and adverbs, i.e not by nouns in the nominative, are treated as constructions with impersonal usage of the verb být, as constructions with a zero Actor. In other cases the verb "být" is existential (see Section 8.2.1.1, "Existential "být""). Cf:

- impersonal usage of the verb být (=to be):
- Je veselo. (=People are cheerful.)
- Je tu vlhko. (=It is damp here.)
- Existential "být" :
- Je pět hodin. (=It is five o 'clock.)
- Je poledne. (=It is noon.)

NB! If the expressions to (=that) or ono (=it) occur in these constructions the nodes representing these expressions have the functor INTF; for example:

To.INTF je hezky. (=The weather is nice.)
Figure 8.16. Impersonal usage of the verb "být"

Je horko. (=lit. (It) is hot.)

## Figure 8.17. Impersonal usage of the verb "být"



K lesu je daleko. (=lit. (It) To (the) forest is a_long_way)

### 8.2.1.5.2. Constructions of "personal experience" with an Actor in the dative

Constructions with the verb být (=to be) expressing personal experience of physical or mental states are constructions in which a noun (or pronoun) in the dative is interpreted as an Actor experiencing the expressed physical or mental state (see also Section 6.2.1.4, "Criteria for determining the type of argument (the principle of shifting)").

In addition to the Actor, the relevant obligatory adjunct (usually MANN), expressing the physical or mental state is also recorded in the valency frames of the verb "být". If this physical or mental state is expressed by a noun or an adjective (or a numerical expression) it is recorded in the valency frame as an obligatory Patient. Cf.:

The valency frame for this meaning of the verb být (=to be):
ACT(.3) MANN(*)
Cf. Fig. 8.18.

- Je mi.ACT deset let.PAT (=I am ten years old.)

The valency frame for this meaning of the verb být (=to be):
ACT(.3) PAT(.1)
Cf. Fig. 8.19
Further examples:
Je mu.ACT horko.MANN (He is hot.)
$\underline{\text { Je }} \underline{\text { mu. ACT hej.MANN ( }=\text { He is on cloud nine.) }}$
Je mi.ACT zima.MANN (=I am cold.)
Je mu.ACT trapně.MANN (=He is embarrassed.)

Bylo mi.ACT velmi smutno.MANN (=I was very sad.)
Té.ACT není nejhůřre.MANN (=She isn't too badly off.)
NB! Constructions with an Actor in the dative with the verb být must be distinguished from constructions like:

Bylo to.ACT dávno. (=It was a long time ago.)
Je tomu.АСТ dávno . (=It is long ago.)
Je tomu.ACT podobně. (=It is similar to that.)
In these constructions "být (=to be)" is a substitute verb. These constructions are distinguished from constructions of "personal experience" by the fact that their actor is inanimate and the constructions do not express physical or mental states.

NB! If the expressions to (=that) or ono (=it) occur in these constructions the nodes representing these expressions have the functor INTF; for example:

Ono. INTF mu není nejlépe. (=He isn't feeling too good now.)
To.INTF je mu zle. (=He's feeling bad, then.)
Figure 8.18. Constructions of "personal experience" with an Actor in the dative


Je ти zle. (=lit. Is him badly)

Figure 8.19. Constructions of "personal experience" with an Actor in the dative


Je mi deset let. (=lit. Is me ten years)

### 8.2.2. Notes on certain constructions with the verb "být"

### 8.2.2.1. Verbonominal predicate vs. periphrastic passive

Constructions with a verbonominal predicate (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)") and constructions with a reflexive passive cannot always be categorically distinguished: the short form of the deverbal adjective is morphologically identical with the periphrastic participle of the verb. Both types of construction (with a participle and with the short form of the deverbal adjective) are interpreted primarily as a periphrastic passive (see exception below). The difference between the meaning of "event" and the meaning of "resultant state" will be represented by the value of the grammateme of resultativeness (resultative; see Section 5.5.14, "The resultative grammateme (resultative aspect)"). Cf.:

- Dům byl.PRED zadlužený.PAT (=The house was mortgaged.)

Verbonominal predicate (cf. Fig. 8.20).

- Dům byl zadlužen.PRED [ $\mathrm{t}-1 \mathrm{emma=zadlužit;}$ sempos=v] (=The house was mortgaged.)

Periphrastic passive with the meaning of "resultant state" (cf. Fig. 8.21).

- Dům byl rodinou zadlužen. $\operatorname{PRED}[\mathrm{t}-1 \mathrm{emma}=$ zadlužit; $; \mathrm{sempos}=\mathrm{v}]$ (=The house was mortgaged.)

Periphrastic passive with the meaning of "event" (cf. Fig. 8.22).
!!! The values in the grammateme of resultativeness in constructions with a periphrastic passive have so far not been distinguished. The value res 0 is always entered in the grammateme of resultativeness in cases of a periphrastic passive.

Note: For purposes of annotation, the basis is the written utterance. The lack of distinction between the two types in spoken utterances cannot be reflected here (a speaker would say Výstava je otevřená (=The exhibition is open), but he would write Výstava je otevřena (=The exhibition is open)).

Exception: a construction expressing a resultant state which is the consequence of a reflexively conceived event. Only constructions expressing a resultant state which is the consequence of a reflexively conceived event are represented as verbonominal predicates: být + short form of a deverbal adjective (not as a periphrastic passive). These are cases where the construction really contains no evidence of a passively conceived event, where the sentence cannot be interpreted as involving a general Actor, because the surface subject is at the same time the deep level Actor of the expressed event directed at himself.

According to the rules introduced in Section 4.2, "The relation between a node's t-lemma and m-lemma and between its t-lemma and word form" the nodes representing short forms of adjectives have the tlemma of the full-form adjective.

Cf:

- Prezident je.PRED přesvědčen.PAT, že vláda neplní své povinnosti. [ t-lemma=přesvědčený; sempos=adj. denot] (=The president is convinced that the government is not fulfilling its obligations.)
= Prezident se přesvědčil, že vláda neplní své povinnosti. (=The president convinced himself that the government is not fulfilling its obligatiions.)

The construction does not have the meaning: "někdo přesvědčil prezidenta, že .." (=someone convinced the president that...), but: "prezident přesvědčil sebe sama, že..." (=the president convinced himself that...) (cf. Fig. 8.23).

Further examples:
Vláda je.PRED připravena.PAT plnit své povinnosti. [ $\mathrm{t}-\mathrm{lemma}=$ připravený; sempos=adj. denot] (=The government is prepared to fulfil its obligations.)

Premiér je.PRED už unaven.PAT [t-lemma= unavený; sempos=adj. denot] (=The president is tired now.)

Pavel ještě není.PRED oblečen.PAT [ t -lemma= oblečený; sempos=adj. denot] (=Paul is not dressed yet.)
!!! The choice between verbonominal predicate and periphrastic passive, or between short-form adjective and passive participle was made only at the tectogrammatical level. At the morphological level the expressions přesvědčen (=convinced), unaven (=tired), připraven (=prepared) etc. are always evaluated as verb forms.

The choice between short-form adjective and passive participle concerns also positions other than after the verb být; see Section 6.5.1.2, "Dependent participial constructions".

Figure 8.20. Verbonominal predicate


Dům byl zadlužený. (=lit. (The) house was mortgaged.)
Figure 8.21. Periphrastic passive


Dům byl zadlužen. (=lit. (The) house was mortgaged.)

Figure 8.22. Periphrastic passive


Dům byl rodinou zadlužen. (=lit. (The) house was by_the family mortgaged.)

## Figure 8.23. Verbonominal predicate



Prezident je přesvědčen, že vláda neplní své povinnosti. (=lit. (The) president is convinced that (the) government is_not_fulfilling its obligations.)

### 8.2.2.2. Constructions with the infinitive

In constructions with the verb být the infinitive can be Actor, Patient or obligatory adjunct.
The infinitive as Actor. Constructions in which the infinitive in the construction with the verb být (=to be) is the Actor occur in combinations with all types of the verb být (=to be), with existential, copula and substitute "být".

- The construction: existential "být" + infinitive in the position of Actor expresses the duration of some state, the existence of some possibility.

Examples:
Je co čist.ACT (=There is something to read.) Fig. 8.24
Je komu pomáhat.ACT (=Somebody needs help.)
Je porád co dělat.ACT (=There is always something to do.)

- In constructions with the copula "být", the infinitive can be the Actor in the verbonominal predicate, but also the Patient. The infinitive takes the position of Actor especially in the sub-type of quasimodal verbs (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)").

Examples:
Je mu trapné odejít. ACT (=He is embarrassed to leave.) Fig. 8.25
Je marné o tom hovořit.ACT (=It is pointless to discuss it.)
Je možné studovat.ACT v zahraničí. (=It is possible to study abroad.)

- In particular, the infinitive regularly occurs as an Actor in constructions být + a modal adverb represented as a node with the functor CPHR (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)").

Example:
Neni nutno zdravit.ACT (=It is not necessary to give a greeting.)

- The infinitive may also be an Actor in constructions with substitute "být".

Example:
Ted' je pozdě litovat.ACT (=It is too late for regrets now.) Fig. 8.26

A specific construction in which the infinitive takes the position of Actor is the construction být + infinitive with verbs of sensual perception and recognition: slyšet (=to hear), vidět (=to see), cítit (=to feel/sense/smell), poznat (=to recognise), rozumět (=to understand), the type "Je vidět Sněžku" (=Sněžka can be seen) (see Section 8.2.2.4, "The construction "Je vidět Sněžku/Sněžka"").

Infinitive as Patient. The non-verbal (non-copula) constituent of a verbonominal predicate (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)") can also be expressed by an infinitive.

Examples:
Končit neni umřít.PAT (=To finish is not to die.) Fig. 8.26
Je vidět.PAT , že se dobře bavite. (=Clearly, you are having a good time.)
Je cítit.PAT sira. (=There is a smell of sulphur.)
Je vidět.PAT Sněžka. (=Sněžka can be seen.)
See also Section 8.2.2.4, "The construction "Je vidět Sněžku/Sněžka"" (construction "Je vidět Sněžku.
(=Sněžka can be seen.)").
Infinitive as adjunct. In constructions with substitute "být" the infinitive can also take the position of an adjunct, most frequently as INTT.

Example:
Byli jsme to obhližet. INTT (=We have been to inspect it.) Fig. 8.28

Figure 8.24. Infinitive as Actor in a construction with the verb "být"


Je co čist. (=lit. Is what to_read.)
Figure 8.25. Infinitive as Actor in a construction with the verb "být"


Je ти trapné odejit. (=lit. Is him embarrassing to_leave.)

Figure 8.26. Infinitive as Actor in a construction with the verb "být"


Ted' je pozdě litovat. (=lit. Now is late to_regret)
Figure 8.27. Infinitive as Patient in a constructiion with the verb "být"


Končit není umřit. (=lit. To_finish is_not to_die.)

Figure 8.28. Infinitive as a free modification in a construction with the verb "být"


Byli jsme to obhližet. (=lit. (We) have_been AUX it to_inspect)

### 8.2.2.3. Constructions with numerical expressions

The representation of constructions with numerical expressions varies according to whether the numeral is nominal, adjectival or adverbial in nature (on this, see Section 8.10, "Numbers and numerals" and Section 5.2, "Semantic parts of speech"):

- "být" + numeral or nominal and adjectival expressions.

Combinations of numerals and nominal and adjectival numerical expressions (semantic nouns or adjectives) with the verb být (=to be) are treated as verbonominal predicates (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)"). A node for the governing noun is not added to an adjectival numeral in the position of Patient (see also Section 8.10.1.1, "Numerals with the role of an attribute (RSTR)").

Examples:
Je to.ACT tretina. PAT dortu. (=It is a third of the cake.) Fig. 8.29
To.ACT je kousek.PAT dortu. (=This is a piece of cake.)
Petr.ACT byl prvni. PAT (=Peter was first.)

Oni.ACT jsou tři.PAT (=There are three of them.)
Bylo to.АСТ půl.РАT kilometru. (=It was half a kilometre.)
Je to.ACT třicet metrů.PAT (=It is thirty metres.)
Cena.ACT je třicet korun. PAT (=The price is thirty crowns.)
We are aware that in the case of the copula "být" the position of Patient carries a variety of meanings, especially in constructions with být + a numerical expression: identity (To je třetina dortu. (=That
is a third of the cake.)), quantification (Cena je 30 Kč. (=The price is 30 Kč), Chlapců je pět. (=There are five boys.)), qualification (Petr byl prvni. (=Peter was first.)). The boundary between the respective types of meaning is not always clear-cut. The type of meaning of the verbonominal predicate is frequently determined only by the context - and for this reason only a semantically ambiguous Patient stands in the position of the non-verbal constituent.

## - "být" + numeral or adverbial numerical expression.

In combinations of numerals and numerical expressions of an adverbial nature (semantic adverbs) with the verb být (=to be) the verb "být" is substitute (see Section 8.2.1.2, "Substitute "být""), or existential (see Section 8.2.1.1, "Existential "být""). Here, the numerical expression is an adjunct.

Examples:
Kurs.ACT byl dvakrát.THO (=The course took place twice.) Fig. 8.31
To.ACT je kousek.EXT od města. (=That is a short distance from the town.)

NB! The numerals hodně (=a lot), dost (=enough), moc (=too much), málo (=too little), mnoho (=many/much) (and their gradations více (=more), méné (=less)) in combinations with the verb být (=to be) are syntactic (and also semantic) adjectives (further on this, see Section 8.10.2.2, "Numeral expressions "hodně", "více", "dost", "moc", "málo", "méně", "stejně", "plno""). In constructions with the verb být, like adjectives, they then have the nature of a Patient; for example:

To.ACT je hodně. PAT (=That is a lot.) Fig. 8.30
To.ACT je moc. PAT (=That is too much.)
Problémů.АСТ je více. PAT (=There are more problems.)
Děvčat.ACT je málo.PAT (=There are too few girls.)
Chlapců.ACT je ještě méně.PAT (=There are even fewer boys.)
To.ACT je o duvod vic. PAT (=That is a further reason.)

Figure 8.29. "Být" + a nominal or adjectival numeral


Je to třetina dortu. (=lit. Is that a_third (of) (the) cake.)
Figure 8.30. "Být" + a nominal or adjectival numeral


To je hodně. (=lit. That is a_lot.)

Figure 8.31. "Být" + adverbial numeral


Kurs byl dvakrát. (=lit. Course was twice.)

### 8.2.2.4. The construction "Je vidět Sněžku/Sněžka"

A particular type of construction with the verb být (=to be) is one in which the verb být is associated with infinitives of verbs of sensual perception and recognition: slyšet (=to hear), vidět (=to see), cítit (=to sense, feel, smell), poznat (=to recognise), rozumět (=to understand). In these constructions the object of perception or recognition may be expressed either by the nominative of the noun or by the accusative; cf.:

- Je vidět Sněžka. (=Sněžka.NOM can be seen.)
- Je vidět Sněžku. (=Sněžka.ACC can be seen.)
- Je citit sira. (=There is a smell of sulphur.NOM)
- Je citit siru. (=There is a smell of sulphur.ACC)

A semantic distinction is made between the constructions and they are represented differently.
The construction "Je vidět Sněžka ". (=Sněžka can be seen.) The construction být + infinitive of a verb of sensual perception or recognition + the nominative of the noun is interpreted according to the model:

- Je vidět Sněžka. (=Sněžka can be seen.) = Sněžka je viditelná. (=Sněžka is visible.)

It is considered that the object expressed in the nominative can be perceived or recognised.
Here, the expression být + infinitive is treated as a verbonominal predicate (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)"). The noun in the nominative is the Actor of the verb and the infinitive is its Patient.

Examples:
Je vidět.PAT Sněžka.ACT (=Sněžka is visible.) Fig. 8.32
Je slyšet.PAT hudba.ACT (=Music can be heard.)
Je znát.PAT změna.ACT (=A change is noticeable.)

The construction "Je vidět Sněžku". (=Sněžka can be seen.) The construction být + infinitive of a verb of sensual perception or recognition + accusative of the noun is a specific construction, similar to the construction with a predicate lze (=it is possible) (cf. Fig. 8.34). In this construction, by contrast with a construction with an object of perception or recognition expressed in the nominative, a certain meaning of modality is present, and at the same time one can imagine a subject which perceives or recognises. Constructions with an object of perception or recognition are therefore interpreted according to the model:

- Je vidět Sněžku. (=Sněžka.ACC can be seen.) = Anybody can seelit is possible for anybody to see Sněžka.

The verb být (=to be) is assigned a special valency frame in these constructions: $\operatorname{ACT}(. \mathrm{f})$. In these constructions the infinitive is treated as the Actor of the verb být (=to be). The subject of the perception or recognition is represented as a free benefActor (BEN), which, unless it is explicit, is added to the tectogrammatical tree only for purposes of representing the grammatical co-referential relationships (see Section 9.2.4, "Control").

Examples:
Je vidět.ACT Sněžku. (=Sněžka can be seen.) Fig. 8.33
Je slyšet.ACT hudbu. (=Music can be heard.)
Je znát.АСТ změnu. (=A change is noticeable.)
A construction with an object of perception or recognition in the accusative is treated as basic, and it is the model for the representation of examples where the case of the noun cannot be determined, where the object of perception or recognition is not expressed at all, and also where the noun is replaced by a dependent clause or an adverbial.

Examples:
Bylo slyšet.ACT střilení. (=Firing could be heard.) Fig. 8.35
Přednášejícimu nebylo rozumět.ACT (=The lecturer could not be understood.) Fig. 8.36
Je vidět.ACT , že máś pravdu. (=It can be seen that you are right.) Fig. 8.37
Odsud je vidět.АСТ až za hranice. (=From here one can see beyond the frontier.) Fig. 8.38

Figure 8.32. The construction "Je vidět Sněžka"


Je vidět Sněžka. (=lit. Is to_see Sněžka.)
Figure 8.33. The construction "Je vidět Sněžku"


Je vidět Sněžku. (=lit. Is to_see Sněžka.ACC)

Figure 8.34. The construction with a predicate "Ize"


Lze vidět Sněžku. (=lit. It_is_possible to_see Sněžka.ACC)

Figure 8.35. The construction "Je vidět Sněžku"


Bylo slyšet střilení. (=lit. Was to_hear firing)

Figure 8.36. The construction "Je vidět Sněžku"


Přednášejícímu nebylo rozumět. (=lit. (The) lecturer.DAT was_not to_understand.)

Figure 8.37. The construction "Je vidět Sněžku"


Je vidět, že máš pravdu. (=lit. Is to_see that (you) are right.)

Figure 8.38. The construction "Je vidět Sněžku"


Odsud je vidět až za hranice. (=lit. From_here is to_see - beyond (the) frontier.)

### 8.3. Direct speech

By direct speech is meant quoted spoken or written statements which are not formally integrated into constructions. The entire original utterance is quoted, including the original grammatical tenses and persons. By direct speech is meant all quoted utterances, regardless of whether or not they are graphically identified.

At the root node of the sub-tree representing direct speech, the value 1 is entered in the attribute is_dsp_root, even when the direct speech is not graphically identified (see Table 8.1, "Values of the attribute is_dsp_root").

Table 8.1. Values of the attribute is_dsp_root
1 the node is the root node of the sub-tree representing direct speech
0 the node is not the root node of the sub-tree representing direct speech
If no value is entered in the attribute is_dsp_root, it is taken to be 0 .
NB! The attribute is_dsp_root is entered at the root node of the sub-tree of the direct speech, not at the effective root nodes. Thus in the tectogrammatical tree representing the sentence: Rekl: Jdi a už se nevracej. (=He said: Go and never come back.) the value 1 will be entered in the attribute is_dsp_root at the root node of the paratactic structure, i.e. at the node for the conjunction $a$ (=and).

The root node of the sub-tree representing direct speech also has its own value in the attribute sentmod (see Section 5.7, "The sentmod attribute").

Nodes representing expressions which are constituents of graphically identified direct speech have the value dsp in the attribute quot/type (see Section 8.19.1, "Text within quotation marks").

Basic rules for annotating direct speech vary according to whether the direct speech is independent or attached to another construction by a reporting clause:

## - independent direct speech.

If the direct speech is independent (i.e. not introduced by a reporting clause), the direct speech is annotated according to the rules described in Section 6.4, "Verbal and non-verbal clauses"; the direct speech is thus represented as a verbal or a non-verbal clause.

Examples:
",Máme.PRED několik set členů."[ is_dsp_root=1] (="We have several hundred members.")
,,Máme. PRED několik set členů a a.CONJ [is_dsp_root=1] budeme mít.PRED ještě vice. " (="We have several hundred members and we will have still more.")
,"Pardon.PARTL"[is_dsp_root=1] (="Excuse me.")
„Pardon, neviděl jsem.PRED vás"[is_dsp_root=1] (="Excuse me, I didn't see you.")
"Hano.VOCAT !"[ is_dsp_root=1] (="Hana!")
,,Rozchod.DENOM!"[is_dsp_root=1] (="Dismiss!")

## - dependent direct speech (introduced by a reporting clause).

Direct speech introduced by a reporting clause is primarily represented as an argument of the word (a verb, a noun, possibly an adjective) in the reporting clause. Special rules thus apply for cases in which the direct speech cannot be represented as an argument of any word in the reporting clause.

The effective root node of dependent direct speech. In the case of dependent direct speech which takes the form of a verbal or nominative clause, the functor of the argument (or possibly another functor) is assigned directly to the effective root node of this nominative or vocative clause.

If the direct speech comprises an (independent) vocative or interjectional clause, the effective root node of the direct speech is the node for the empty verb and the effective root node of the interjectional or vocative clause is represented as dependent on this newly established node. Interjectional and vocative clauses are represented here according to the rules for representing interjectional and vocative clauses in combination with a verbal clause (see Section 6.4.3, "Connecting verbal and non-verbal clauses").

Cf.:

- Řekl: ,, $\underline{\text { Jdu } v e n . " ~(=H e ~ s a i d: ~ " I ' m ~ g o i n g ~ o u t . ") ~}$

The effective root node of the direct speech is the node for the verb jít (=to go).

- Zavelel: ,, Rozchod!" (= He gave the order: "Dismiss!")

The effective root node of the direct speech is the node for the noun rozchod (=dismissal).

- Řekl: „Bez výjimky \{\#EmpVerb\} ." (=He said: „No exceptions.")

The effective root node of the direct speech will be the newly established node for the empty verb. The direct speech is interpreted, according to the rules in Section 6.4.1, "Verbal clauses", as a verbal clause.

- Řekl: „Ano \{\#EmpVerb\} ." (=He said: ,,Yes.")

The effective root node of the direct speech will be the newly established node for the empty verb ( t _lemma=\#EmpVerb); the node representing the expression ano (=yes) (the effective root node of the interjectional clause) will be dependent on the node for the empty verb and it will have the functor PARTL.

- Zvolal: „Můj bratře! \{ \#EmpVerb\} ." (=He exclaimed: „,My brother!")

The effective root node of the direct speech will be the newly established node for the empty verb ( $t$ _lemma=\#EmpVerb); the node representing the vocative bratre (=brother) (the effective root node of the vocative clause) will be dependent on the node for the empty verb and it will have the functor VOCAT.

The following sections describe in more detail the representation of constructions with direct speech introduced by a reporting clause. The description varies according to whether or not the direct speech is a modification of a word in the reporting clause. (Section 8.3.1, "Direct speech as modification of a reporting clause")(Section 8.3.2, "Direct speech is not a modification of the reporting clause").

In the last section (Section 8.3.3, "Borderline cases between direct speech and meta-usage") borderline cases between direct speech and meta-usage are described.

### 8.3.1. Direct speech as modification of a reporting clause

Direct speech introduced by a reporting clause is represented primarily as an argument of a word in the reporting clause.

The option to express one of the arguments by means of direct speech is recorded in the valency frame of the given word by the symbol . $s$ (on this, see Section 11.5.1, "The notation of valency frames").

Direct speech may express the argument of a verb (Section 8.3.1.1, "Direct speech as the argument of a verb"), a noun (Section 8.3.1.2, "Direct speech as modification of a noun") or an adjective. If direct speech is introduced by an adjective, it is similarly represented according to the rules relating to direct speech introduced by a verb.

### 8.3.1.1. Direct speech as the argument of a verb

If the direct speech expresses the argument of a verb (or adjective) in the reporting clause and unless the given valency position is already occupied by another modification, the effective root node of the direct speech has the functor of one of the arguments and is dependent on the node for the verb.

Direct speech is represented as an argument in the case of many verbs of speaking and verbs meaning the reproduction of spoken utterances, written text and unexpressed ideas.

Examples:
Ozvalo se: ,, Nechod'.ACT tam!" (=The command was heard: "Don't go there!") Fig. 8.39
Řekli mu: „, Nechod'.EFF tam. " (=They told him: "Don't go there".)
Vyzvali nás: ,, Jděte.PAT všichni ven. " (=They called on us: "Come out, all of you.")
Napsali o nás: ,, Jsou.EFF to dobří lidé." (=They wrote about us: "They are good people.")
Pomyslela si: ,, Jsem.EFF dobrá. " (=She thought: "I'm good.")
Direct speech as a non-verbal part of a verbonominal predicate. Direct speech replacing the nonverbal part of a verbonominal predicate is also represented as an argument. The effective root node of the direct speech has the functor PAT. For example:

Jeho odpověd" byla: ,, Přijdu. PAT " (=His reply was: "I'll come.") Fig. 8.40

Jeho slova byla: ,, Závidím. PAT mu. " (=His words were: "I envy him.")
Jeho hodnocení je: ,, Hráli. PAT výborně." (=His evaluation is: "They played excellently.")
Apposition of direct speech and its paraphrase. A construction may also contain first of all the content of direct speech, freely paraphrased, followed by a literal quotation of the statement. In such a case the direct speech and its paraphrase are represented as being in apposition (this type is distinguished from the type with a filled-in valency position; see Section 8.3.1.1.1, "Specific constructions in which direct speech is represented as an argument of the verb"). For example:

Řekl, že nepřijde.EFF[is_member=1] : „Určitě se nedostavím.EFF [is_member=1]. " (=He said that he would not come: "I definitely won't turn up.") Fig. 8.41

A punctuation mark instead of a reporting verb. Direct speech is also represented as an argument when it is incorporated in a clause which contains no verb, but in which the node for a punctuation mark (a colon) standing for the absent verb is represented as the effective root node in the function of a predicate (see Section 6.4.1, "Verbal clauses"). In these constructions, the effective root node of the direct speech has the functor PAT. For example:

Trenér Sparty: ,, Nehráli jsme.PAT špatně. " [ \#Colon.PRED] (=The Sparta coach: "We didn't play badly.") Fig. 8.42

Martina Hingisová: „Hráčky mé akceptovaly. PAT " [\#Colon. PRED] (=Martina Hingisová: "The players accepted me.")

Figure 8.39. Direct speech as argument of the reporting verb


Ozvalo se: „Nechod' tam!" (=lit. Was_heard REFL: "Don't_go there!")

Figure 8.40. Direct speech as argument of the reporting verb


Jeho odpověd' byla: „Přijdu." (=lit. His answer was: "I'll_come.")

Figure 8.41. Direct speech as argument of the reporting verb


Řekl, že nepřijde: „Určitě se nedostavím. " (=lit. (He) said that (he) would_not_come: "(I) definitely REFL won't_turn_up.")

Figure 8.42. Direct speech as argument of the reporting verb


Trenér Sparty: „Nehráli jsme špatně. " (=lit. (The) coach (of) Sparta: "(We) didn't_play AUX badly. ")

### 8.3.1.1.1. Specific constructions in which direct speech is represented as an argument of the verb

If direct speech does not express a modification of the reporting verb (or adjective) and it cannot be represented as a modification of a noun (see Section 8.3.1.2, "Direct speech as modification of a noun"), it is represented, if such an interpretation is possible, in one of the following ways:
a. a node standing for the infinitive of the verb of saying is added to the tectogrammatical tree.

If it is possible to modify the verb in the reporting clause by the infinitive of a verb of saying (for example řikat (=to say)) as its argument, a new node is added to the tectogrammatical tree with the t-lemma substitute \#EmpVerb and with the functor of the appropriate argument. The effective root node of the direct speech is dependent on this newly established node and has the functor EFF. Cf.:

- Posadil se a začal \{\#EmpVerb.PAT\} : „Nejdřive mi vysvětlete.EFF, co se stalo. " (=He sat down and began: "First of all explain to me what happened.")
= Posadil se a začal řikat: „Nejdříve mi vysvětlete, co se stalo." (=He sat down and started to say: „First of all explain to me what happened.")

In the position of Patient of the verb začit (=to start) a node is inserted to the tectogrammatical tree for the empty verb, which here stands for the infinitive of the verb of saying (for example: řikat (=to say)). The effective root node of the direct speech is dependent on this newly established node and has the functor EFF (cf. Fig. 8.43).

Additional example:
Postavil se a začal \{\#EmpVerb.PAT\} : ,, Skákal.EFF pes přes oves." (=He stood up and began:
"The dog jumped over the oats.")
b. a node standing for a gerund (transgressive) of the verb of saying is added to the tectogrammatical tree.

If it is possible to attach the direct speech to the reporting clause by a gerund (transgressive) of a verb of saying (the subject of the verb in the reporting clause and the subject of the inserted gerund are identical), then a new node is added to the tectogrammatical tree, with the t -lemma substitute \#EmpVerb and with the functor COMPL (the node stands for expressions like řka (=saying) etc. and represents a new reporting verb of the direct speech). The effective root node of the direct speech is dependent on the newly established node and it has the functor EFF.

A node with the t-lemma \#Cor and the functor ACT is added to the tree as dependent on the newly established node for the gerund, because the Actor of the gerund is in a relationship of grammatical co-reference with the subject of the governing verb (see Section 9.2.3, "Coreference with verbal modifications that have dual dependency").

This means of representing direct speech is mainly used in two cases:

## - filled valency position of the verb in the reporting clause.

A node standing for the gerund of the verb of saying is added to the tectogrammatical tree especially in cases where, although the verb in the reporting clause does permit the expression of its argument by direct speech, the given valency position is already filled (and it is not direct speech and its paraphrase that is involved - see Section 8.3.1.1, "Direct speech as the argument of a verb"). Cf.:

- Nepřesvědčivý výkon vysvětloval trenér: „Hráli jsme jen napůl." (=The unconvincing performance was explained by the coach: "We played only half-heartedly.")

The valency frame of the verb vysvětlovat (=to explain):

$$
\operatorname{ACT}(.1) \operatorname{PAT}(.4, \text { jak-2[.v],že[.v],zda[.v],jestli[.v],.c,.s,at[.v],aby[.v]) ADDR(.3) }
$$

Direct speech cannot be represented as the Patient of the verb vysvětlovat (=to explain), because the given valency position is already occupied by the noun výkon (=performance). Therefore a new node is added to the tectogrammatical tree to represent the gerund of the verb of saying and the effective root node of the direct speech is dependent on this newly established node as an Effect (cf. Fig. 8.44).

Additional example:
Vzpominala na omamnou noc $\{\# E m p V e r b . C O M P L\}:$, Bylo.EFF to krásné." (=She reminisced about a night of stupefaction: "It was wonderful.")

- the verb in the reporting clause does not admit the option of a modification by direct speech.

A node representing the gerund (transgressive) of a verb of saying is added to the tectogrammatical tree also in cases where the direct speech is adjacent to a verb which cannot be considered a verb reporting the direct speech (none of the arguments of the valency frame of the verb can be expressed by the direct speech).

Examples:
Vtrhl do dveří \{\#EmpVerb.COMPL\} : „Kdy bude.EFF večeře?" (=He burst in at the door: "When will the dinner be ready?") Fig. 8.45
,"To jsou.EFF duplikáty," \{\#EmpVerb.COMPL\} směje se prodavač. (="Those are copies," the salesman laughed.)
„, V přípravěse mužstvo ani jednou nesešlo.EFF kompletní, "\{\#EmpVerb.COMPL\} povzdechl si Jeřábek. (= "The complete team did not meet up for preparation even once, " sighed Jeřábek.)

Where there are two possible solutions, annotation method a) has precedence over annotation method b).

Figure 8.43. Direct speech constructions with an infinitive of a verb of saying
added to the structure added to the structure


Posadil se a začal: „Nejdřive mi vysvětlete, co se stalo." (=lit. (He) sat_down REFL and began: "First_of_all to_me explain what REFL happened.")

Figure 8.44. Direct speech constructions with a gerund of a verb of saying added to the structure


Nepřesvědčivý výkon vysvětloval trenér: „Hráli jsme jen napůl. " (=lit. (The) unconvincing performance.ACC explained (the) coach.NOM: "(We) played AUX only half-heartedly.")

Figure 8.45. Direct speech constructions with a gerund of a verb of saying added to the structure


Vtrhl do dveří: „Kdy bude večeře? "(=lit. (He) burst in (the) door: "When will_be (the) dinner? ")

### 8.3.1.2. Direct speech as modification of a noun

By a noun reporting direct speech is meant a noun derived from a verb of saying, writing, noting, thinking and those non-derived nouns which typically introduce declarations and inscriptions.

For example: otázka (=question), názor (=opinion), reakce (=reaction), tvrzení (=claim), zminka (=mention), vyznání (=confession), výrok (=statement/declaration), odpověd' (=reply), zvolání (=exclamation), slovo (=word), slůvko ( $=$ just a word), formule ( $=$ formula).

Direct speech may express an argument of these nouns, or, if the reporting noun has no valency, it is represented as a non-valency modification with the functor RSTR. Thus the effective root node of the direct speech dependent on the node for the noun has the functor of one of the arguments or the functor RSTR.

Direct speech is also represented as a modification of these reporting nouns in cases where the direct speech and the reporting noun are not in contact at surface level. This rule does not only apply to direct speech in constructions with a verbonominal predicate. Cf.:

- „Co kdyby nám někdo přispěl. PAT?" klade řečnickou otázku trenér. (=,,What if someone were to make a contribution?" asks the coach rhetorically.)

Direct speech is represented as the Patient of the noun otázka (=question).

- Jeho slova byla překvapivá: „Závidím mu." (=His words were surprising: „I envy him. ')

Direct speech in a construction with a verbonominal predicate (in which the direct speech is detached from its potential reporting noun) is not represented as a modification of the noun slovo (=word). For rules for annotation of these constructions see Section 8.3.2, "Direct speech is not a modification of the reporting clause".

NB! The above-mentioned nouns can also introduce meta-usage of an expression or an entire construction; on this, see Section 8.3.3, "Borderline cases between direct speech and meta-usage".

NB! The following nouns are not treated as nouns introducing direct speech: nápis (=notice/inscription), text (=text), výraz (=expression). Quotations following them are treated as meta-usage (see also Section 8.3.3, "Borderline cases between direct speech and meta-usage").

Direct speech as the argument of a noun in a reporting clause. If direct speech expresses the argument of a noun in a reporting clause and unless the given valency position is already filled by another modification, the effective root node of the direct speech has the functor of one of the arguments and is dependent on the node for the noun. Cf.:

- Rozkaz zněl stroze: ,, Odejděte.PAT!" (=The command sounded severe:"Go away!")

Direct speech is represented as the Patient of the noun rozkaz (=command).

- Rozkaz k odchodu zněl stroze: „Odejděte!" (=The command to leave sounded severe: ,,Go away!)

Direct speech cannot be represented as the Patient of the noun rozkaz (=command), because the given valency position is already occupied by the prepositional phrase $k$ odchodu (=to departure). The construction will be represented as involving a paratactic relationship of the direct speech and the reporting clause (see Section 8.3.2, "Direct speech is not a modification of the reporting clause").

Examples:
Jeho odpověd" ", Přijdu. PAT " nás překvapila. (=His reply "I'll come" surprised us.) Fig. 8.46
Nesdilím názor trenéra: „Hráč pro zranění nenastoupí.PAT . " (=I do not share the coach's opinion: "A player won't turn up after an injury.")

O České republice padla v článku jediná zmínka: , "Stavbu je. EFF třeba podpořit. " (=There was only one mention of the Czech Republic in the article: "The construction must be supported.")

Direct speech as a modification with the functor RSTR. If the direct speech expresses modification of a noun, but the noun has no valency (requires no obligatory modification), the effective root node of the direct speech has the functor RSTR and is dependent on the node for the noun. Cf.:

- Jeho slova ,,Závidím.RSTR mu. " nás překvapila. (=His words "I envy him" surprised us.)

Direct speech is represented as a modification with the functor RSTR dependent on the noun slovo (=word) (cf. Fig. 8.47).

Further example:
Prý se zabarikádovali za formulí „Žádné zvýšení.RSTR platů bez snižení nákladů" a nepředkládají žádné konkrétní návrhy. (=Apparently, they have barricaded themselves behind the slogan "No pay increase without a reduction of costs" and offer no concrete proposals.)

Figure 8.46. Direct speech as an argument of a noun


Jeho odpověd" „Přijdu. " nás překvapila. (=lit. His reply „I'll_come" us surprised)

Figure 8.47. Direct speech as a modification with the functor RSTR


Jeho slova ,,Závidím mu. " nás překvapila. (=lit. His words ,,(I) envy him" us surprised.)

### 8.3.2. Direct speech is not a modification of the reporting clause

If the direct speech does not express a modification of the reporting verb, noun or adjective and the direct speech cannot be attached by means of an infinitive or gerund of a verb of speech (i.e. the direct speech cannot be represented by any of the methods shown in Section 8.3.1, "Direct speech as modification of a reporting clause"), the construction is represented as a co-ordination of the reporting clause and the direct speech. The root node of the paratactic structure is usually the node representing a colon ( t _lemma=\#Colon). No new node representing the reporting verb is added to the tectogrammatical tree. Cf.:

- V jednotce se lepší.PRED [is_member=1] nálada: „, Porazíme.PRED [is_member=1] je." (=The mood of the unit is improving: "We'll beat them.")

The co-ordination of the reporting clause and the direct speech will be represented in the construction. Direct speech cannot be represented as an argument of the reporting verb, and the direct speech cannot be attached by means of the infinitive or gerund of the verb of saying (because the subjects are different; cf. Fig. 8.48).

In addition to the analysis in terms of co-ordination of the direct speech and its reporting clause (clausal co-ordination) it may be more appropriate in some cases to represent the relationship as apposition, and possibly as apposition between the direct speech and only one constituent of the reporting clause (mixed co-ordination).

Examples:

Nálada v družstvu byla.PRED [is_member=1] výborná: ,, Vyhráli jsme.PRED [is_member=1] !" [ \#Colon.CONJ] (=The mood in the team was excellent: "We won!")

Kaiserova zpověd'. DENOM [is_member=1] v Reflexu: „Život beru.PRED [is_member=1] jako prestupní stanici." (=Kaiser's confession in Reflex (a weekly publication): "I treat life as a half-way house.") [ \#Colon.APPS]

Direct speech in a construction with a verbonominal predicate. Constructions in which direct speech is incorporated in a clause with a verbonominal predicate and the clause contains a verbal and a non-verbal part of the predicate are also treated as a co-ordination of direct speech and reporting clause. Here, the direct speech cannot be represented as a non-verbal part of the predicate, nor is it represented as dependent on a noun, because of its detachment from the potential reporting noun (see Section 8.3.1.2, "Direct speech as modification of a noun"). Cf:

- Jeho slova byla: „Přijdu. " (=His words were: „I'll come. ')

The direct speech is represented as a non-verbal part of the verbonominal predicate (the effective root node of the direct speech has the functor PAT; see Section 8.3.1.1, "Direct speech as the argument of a verb").

- Jeho slova „Přijdu" byla neměnná. (=His words „I'll come" were immutable.")

The direct speech is represented as a modification with the functor RSTR dependent on the noun slovo (=word) (see Section 8.3.1.2, "Direct speech as modification of a noun").

- Jeho slova byla neměnná: „Přijdu." (=His words were immutable: "I'll come.")

The direct speech cannot be represented as a non-verbal part of the verbonominal predicate. The co-ordination of the direct speech and the reporting clause is represented in this construction (cf. Fig. 8.49).

Additional examples:
Jeho slova byla.PRED [is_member=1] překvapivá: ,, Závidím.PRED [is_member=1] mu." (=His words were surprising:" ${ }^{-1}$ envy him.")

Jeho hodnocení bylo. PRED [is_member=1] zdrcujicí: „Takhle špatné jste ještě nehráli. PRED [is_member=1]." (=His evaluation was devastating: "We have never played so badly.")

Filled valency position of the noun in the reporting clause. We also represent as co-ordinations of direct speech and its reporting sentence constructions in which direct speech could be represented as a valency modificatiion of a noun in the reporting clause, but the given valency position of the noun is already occupied by another valency modification (see also Section 8.3.1.2, "Direct speech as modification of a noun"). Cf.:

- Rozkaz $k$ odchodu zněl.PRED [is_member=1] stroze: „Odejděte.PRED [is_member=1] !" (=The command to leave sounded severe: "Go away!")

The direct speech cannot be represented as a Patient of the noun rozkaz (=command), because the given valency position is already occupied by the prepositional phrase $k$ odchodu (=to departure). The co-ordination of the direct speech and the reporting clause will be represented in this construction (cf. Fig. 8.50).

Figure 8.48. Co-ordination of the reporting clause and the direct speech


V jednotce se lepší nálada: „Porazime je." (=lit. In (the) unit REFL is_improving (the) mood: "(We) will_beat them.")

Figure 8.49. Co-ordination of the reporting clause and the direct speech


Jeho slova byla neměnná: „Přijdu!" (=lit. His words were immutable: "I'll_come!")

Figure 8.50. Co-ordination of the reporting clause and the direct speech


Rozkaz kodchodu zněl stroze: ,,Odejděte!" (=lit. (The) command to leave sounded severe: "Go_away!")

### 8.3.3. Borderline cases between direct speech and metausage

Some nouns (for example: slovo (=word), otázka (=question), výrok (=statement/declaration) and others) can introduce both direct speech (see Section 8.3.1.2, "Direct speech as modification of a noun"), and so-called meta-usage of a word or phrase (see Section 8.8.3, "Expressions used metalinguistically"). Cf.:

- Vhodnost těch nemalých investic obhajuje slovy: ,,Velká část budov je.RSTR ve velmi zanedbaném stavu." (=He/She defends the appropriateness of these substantial investments with the words: „A large proportion of the buildings is in a very neglected state.")

The noun slovo (=word) introduces direct speech.

- Slovo „klika.ID " má několik významů. (=The word ,,klika" has several meanings.)

The noun slovo (=word) introduces an expression used metalinguistically.
The following are considered nouns introducing meta-usage, but not direct speech: nápis (=inscription), text (=text), výraz (=expression). For example: Billboard s nápisem ,,Vpřed.ID " (=A hoarding with the inscription "Forwards").

An expression used metalinguistically (words or entire phrases, and clauses) is represented as an identifying structure (see Section 8.8.1.3, "Identification structure"). By contrast, direct speech is never represented as an identifying structure.

Boundaries with the expressions "ano", "ne". Choices between meta-usage and direct speech are also made in the case of the expressions of negation and affirmation ano (=yes) and ne (=no). A distinction is made between cases where a statement is being made indicating agreement or disagreement (direct speech) and cases where the expressions ano (=yes) and ne (=no) are being discussed as words or concepts (meta-usage). Cf.:

- Jak mám poznat, kdy řici „, \{\#EmpVerb.EFF\} ano.PARTL" (=How am I to tell when to say ,,yes"?)

The expression ano (=yes) (in the meaning "souhlasím" (=I agree), "platí ano" (=the answer is yes)) is represented as direct speech. According to the rules on the establishment of an effective root node for reported direct speech (introduced in Section 8.3, "Direct speech") a node is added to the tectogrammatical tree for the empty verb.

Additional examples:
Referendum řeklo \{\#EmpVerb.EFF\} ne.PARTL (=The referendum said no.)

- to kratičké,, \{\# Idph.DENOM\} ano.ID" (=That little yes.)

The expression ano (=yes) is treated as meta-usage. According to the rules for the representation of identifying structures (see Section 8.8.1.3, "Identification structure") a new node is added to the tectogrammatical tree with the t-lemma \# Idph.

Additional examples:
francouzské \{\#Idph.DENOM\} ano.ID (=the French yes)
ze stoupenců ,, \{\#Idph.PAT\} ano. ID" (=from the "yes" supporters)

Direct speech and meta-usage indicated graphically (by means of quotation marks) are distinguished by the distinct values (dsp and meta) in the attribute quot/type (see Section 8.19.1, "Text within quotation marks").

### 8.4. Constructions with the meaning of "comparison"

Constructions with the meaning of are constructions in which two or more events, states or entities are compared. They are primarily understood as comparison of two events.

There are three basic ways (forms) to express comparison:

- comparison by means of the preposition "jako" (see Section 8.4.1, "Comparison by means of the conjunction "jako" (comparison based on identity and similarity)"),
- comparison by means of the conjunction "než" (see Section 8.4.2, "Comparison by means of the conjunction "než" (comparison on the basis of difference)"),
- comparison by means of various adverbs, prepositions and other elements (see Section 8.4.3, "Comparison expressed by adverbs, prepositions and other means").

Basic annotation rules for constructions in which two events are compared. In comparative constructions where two events (or states) are compared, the dependent clause expresses what the event in the governing clause is similar or identical to, or from what it differs. It is typical of constructions in which two events or states are compared that the underlying structure contains a feature, a degree of identity/similarity/difference, with respect to which the events or states are compared.

In constructions in which two events are compared, the following are distinguished:

- the governing clause.

The governing clause contains:

## - the expression that refers to the degree of identity/similarity/difference.

- the dependent clause.
- the conjunction "než" or "jako".

Example:

- Pavel běhá rychleji, než běhá Honza. (=Pavel runs faster than Honza)

The governing clause: Pavel běhá rychleji.
The expression referring to the degree of identity/similarity/difference: rychleji.
The dependent clause: běhá Honza.
The conjunction: než.
The effective root node of the dependent clause represents the governing verb and has always the CPR functor (see Section 7.6.2, "CPR"). In regular cases, this node is dependent on the node representing the degree expression (i.e. the expression referring to the degree of identity/similarity/difference), which is part of the governing clause. If such an expression is missing from the surface form of the sentence (this is common in constructions with "jako"), a new node is added to the structure in the position of this expression, with the t-lemma \#Equal. The reference to the conjunction is in the a/aux.rf attribute of the effective root node of the dependent clause.

The governing verb of the dependent clause is often omitted in the surface form of the sentence. The ellipsis is caused by the identity of the lexical content of the verbs in the governing and the dependent clauses (see Section 6.12.1.1.1, "Textual ellipsis of the governing verb"). Thus, if the governing verb of the dependent clause is not present in the surface form of the sentence, a new governing node with the CPR functor is inserted into the dependent clause in compliance with the rules in Section 6.12.1, "Ellipsis of the governing element" (usually, it is copied from the governing clause).

The reason why a new node is added to the dependent clause even in cases when this might sound unnatural is the fact that if the CPR functor were assigned directly to the locative, temporal or other adjuncts (when these modifications are compared), their locative, temporal or other meanings would be lost. Cf.:

- Polož to spiše do skřině než na postel. (=Put it rather into the wardrobe than on the bed)
$=\underline{\text { Polož }}$ to spíše do skřině, než to polož na postel. (=Put it rather into the wardrobe than put it on the bed)

If the CPR functor were assigned directly to the modification na postel, its directional meaning would be lost; however, if the sentence is understood as comparing two events, the CPR functor is assigned to the node for the governing verb and the directional meaning of na postel may be preserved.

The surface form of comparative constructions is often very abbreviated as sometimes more than one lexical unit (present in the underlying/tectogrammatical structure) is omitted. Tectogrammatical annotation of comparative constructions is therefore rather complex. Individual types of comparative constructions are described in more detail in the following sections.

### 8.4.1. Comparison by means of the conjunction "jako" (comparison based on identity and similarity)

The conjunction "jako" (=like) is used for comparison based on similarity or identity.
In most cases, we think of this type of construction as involving comparison of two events (or states), based on a property/feature, degree of identity/difference/similarity (see Section 8.4.1.1, "Comparing two events by means of the conjunction "jako"").

Direct comparison. Only two types of construction are recognised that are treated as direct comparison of two entities (i.e. not referring to any degree). These are:

- Comparison of the type: "nominative is like nominative".

This construction contains the verb být and there is no nominal part (of the predicate) after být; instead the comparison is expressed directly by means of the conjunction "jako" and a noun in the nominative.

The node representing the noun in the nominative has the CPR functor and depends on the verb být (the verb být has the role of the substitute "být" - see Section 8.2.1.2, "Substitute "být"").

Examples:
Chaloupka je jako dlan̆.CPR (=lit. Cottage is like palm) Fig. 8.51
Moučník je jako báseň.CPR (=lit. Dessert is like poem)
Dívka je jako obrázek.CPR (=lit. Girl is like picture)

- Comparison of the type: "noun like nominative".

In this construction, two entities are compared directly. The noun following "jako" is always in the nominative.

The node representing the noun in the nominative has the CPR functor and depends on the node for the preceding noun.

Examples:
Vstoupil do chaloupky jako dlan̆.CPR (=lit. (He) entered in cottage like palm.NOM) Fig. 8.52
Kousl do moučníku jako básen̆.CPR (=(He) bit into dessert like poem.NOM)
Viděl dívku jako obrázek.CPR (=(He) saw girl like picture.NOM)
NB! Constructions like Vstoupil do chaloupky jako na dlani. (=lit. (He) entered in cottage like on palm) are analyzed according to rules in Section 8.4.1.1, "Comparing two events by means of the conjunction "jako"".

Figure 8.51. Direct comparison


Chaloupka je jako dlaň. (=lit. Cottage is like palm)
Figure 8.52. Direct comparison


Vstoupil do chaloupky jako dlaň. (=lit. (He) entered into cottage like palm)

### 8.4.1.1. Comparing two events by means of the conjunction "jako"

When comparing two events (or states) by means of the conjunction "jako" (=like/as), the node for the governing verb of the dependent comparative clause has the CPR functor and depends on the node for the expression referring to the degree of identity/difference/similarity in the governing clause.

Expression referring to the degree of identity/difference/similarity The expression referring to the degree of identity/difference/similarity with the event in the dependent clause is often an adverb (e.g.: tak (=so, this), stejné (in_the_same_way), rychle (=fast)), or adjective (e.g.: podobný (=similar), stejný
(=same), rychlý (=fast)) in positive. This node can have different functors depending on its position in the sentence:

- if it represents an adverb, its functor is usually MANN.

For example:
Udělal to rychle.MANN , jako to udělal.CPR Tonda. (=He did it fast as Tonda did it) Fig. 8.53
Rozdělení dramaturgie je stejně.MANN důležité jako je..CPR důležité soutěžení. (=Division of dramaturgy is as (=lit. in_the_same_way) important as competing is important)

- in constructions with the copula "být" it has the PAT functor (especially if it represents an adjective).

For example:
Je zdravý.PAT , jako je.CPR zdravá ryba. (=He is fit as fish is fit) Fig. 8.57

- the expression referring to the degree of identity/difference/similarity can also modify a noun and have the RSTR functor.

For example:
Poslanec je člověk stejný.RSTR jako je.CPR každý jiný. (=A deputy is human just like (lit. same like) everybody else is) Fig. 8.61

Vydělal stejně.RSTR peněz jako vydělal.CPR v zahraničí. (=He earned the same money as he did abroad) Fig. 8.62

Ellipsis of the expression referring to the degree of identity/difference/similarity. The expression referring to the degree of identity/difference/similarity does not have to be present in the surface form of the sentence. Such a construction is interpreted as a construction in which the expression referring to the degree of identity/difference/similarity with the event in the dependent clause is present at the tectogrammatical level (and omitted in the surface form). Then, a new node with the t-lemma \#Equal and a corresponding functor is added to the subtree for the governing clause. The effective root node of the dependent clause is dependent on this newly established node, then. Cf.:

- Udělal to \{\#Equal.MANN\} , jako to udělal.CPRTonda. (=He did it like Tonda did it)
$=$ He did it the same way as Tonda (did it).
In place of the absent expression referring to the degree of identity/difference/similarity, a new node with the t-lemma substitute \#Equal and the MANN functor is added. The effective root node of the dependent clause is dependent on this newly established node. Cf. Fig. 8.55.
- Poslanec je člověk \{\#Equal.RSTR\}, jako je.CPR každýjiný. (=A deputy is human like everybody else is)
$=A$ deputy is human in the same way everybody else is (human).
In place of the absent expression referring to the type of identity/difference/similarity, a new node with the t-lemma substitute \#Equal and the RSTR functor is added. The effective root node of the dependent clause is dependent on this newly established node. Cf. Fig. 8.61.

Ellipsis of the governing verb of the dependent clause. If the governing verb of the dependent clause is not present in the surface form of the sentence, a new node with the CPR functor is inserted into the dependent clause in compliance with the rules in Section 6.12.1, "Ellipsis of the governing element" (usually, it is copied from the governing clause).

Examples of constructions with ellipsis of the governing verb in the dependent clause:
Udělal to rychle jako \{ udělat.CPR \} Tonda. (=He did it (as) fast as Tonda) Fig. 8.54
Mluvízbrkle \{\#Equal.MANN\} jako \{ mluvit.CPR\} ty. (=He talks rashly just like you)
Je zdravýjako \{ být.CPR\} \{zdravý.PAT\} ryba. (=He is fit as fish) Fig. 8.58
Rozdělení dramaturgie je stejně důležité jako \{ být.CPR\} \{důležitý.PAT\} soutěženi. (=Division of dramaturgy is as important as competing)

Examples of constructions with ellipsis of the governing verb of the dependent clause as well as the expression referring to the degree of identity/difference/similarity:

Udělal to \{\#Equal.MANN\} jako \{ udělat.CPR\} Tonda. (=He did it like Tonda) Fig. 8.55
Vstupoval do bytu \{\#Equal.MANN\} jako\{ vstupovat.CPR\} do jámy lvové. (=He was entering the room like a lion's den)

NB! In exceptional cases, when the ellipsis analysis would be really unnatural, no node for the governing verb is added into the dependent clause; the construction is considered to be an idiom. For example:

Vše běží jako na drátkách. [jako_na_drátkách.DPHR] (=Everything is running smoothly; lit. everything runs like on wires)

Node with the t-lemma substitute \#Oblfm. When analyzing comparative constructions (with comparison of two events), the following t-lemma substitutes are also used: \#Oblfm and \#Some. A node with the \#Obl fm t-lemma is used in these constructions in cases when an obligatory adjunct in the dependent clause is not expressed; it is impossible to copy the relevant modification from the governing clause, due to semantic reasons (there, the obligatory adjunct is expressed by adverbs like stejně (=in_the_same_way), podobně (=similarly),jinak (=other_way)). This rule interacts with the rule regarding representing non-expressed obligatory modifications by means of adding new nodes with t lemma substitutes into the structure (see Section 6.12.2.1.3, "Ellipsis of an obligatory free modification (t-lemma substitutes \#Oblfm and \#Rcp)"). Cf.:

- Vypadá jako šelma. (=She looks like a beast of prey)
$=$ She looks just like a beast of prey looks.
In place of the absent expression referring to the degree of identity/difference/similarity, a new node with the t-lemma substitute \#Equal and the MANN functor is added. This node is in the position of the obligatory manner adjunct at the same time. For the same position in the dependent clause, a new node with the \#Obl fm t-lemma has to be added. Cf. Fig. 8.64.

Another example:
Jednala s ním \{\#Equal.MANN\} jako se jedná.CPR se sluhou \{\#Obl fm.MANN\} . (=She treated him like people treat servants)

Node with the t-lemma substitute \#Some. A node with the t-lemma \#Some is added into the subtree for the dependent clause in place of the non-expressed nominal part of the verbonominal predicate if it is impossible to copy the relevant node from the governing clause (due to semantic reasons; i.e. in cases when this nominal part is represented by adjectives like stejný (=same), podobný (=similar), jiný (=different)). Cf.:

- Je stejný jako já. (=He is just like me)
$=$ He is the same as I am

The dependent clause modifies the expression stejny'. In the position of the effective root node of the dependent clause (its governing verb), there is a node copied from the governing clause. Due to semantic reasons, it is however impossible to copy the nominal part of the predicate as well; therefore, a new node with the $t$-lemma \#Some and the PAT functor is inserted in the relevant position, then. Cf. Fig. 8.59.

More examples:
Požadavky jsou podobnéjako \{ být.CPR\} \{\#Some.PAT\} u České spořitelny. (=The requirements are the same as with CS) Fig. 8.60

Nemoci důvěřovat je \{\#Equal.PAT\} jako \{být.CPR\} \{\#Some.PAT\} pobývat u nepřitele. (=Not to be able to trust is like staying with the enemy) Fig. 8.63

For more on copying of multi-word predicates, see Section 6.12.1.1.1, "Textual ellipsis of the governing verb".

Comparison expressed by a deverbal adjective or noun. Comparative constructions in which the governing clause (expressing the comparison) is nominalized, i.e. represented by a deverbal adjective or noun, are analyzed similarly (to the cases described above). For example:
muž vypadající jako popisovaný lupič (=lit. man looking like described robber) (= the man who looks just like the described robber)
muž chovající se jako ditě (=lit. man behaving like child) (= the man who behaves in the same way children do)

Ellipsis of the governing clause. Similarly, also complex cases involving ellipsis of the governing clause are analyzed. For example:

Vypadá, jak by spadl z višně. (=lit. (He) looks like (he) fell from wild_cherry_tree) (= He looks the same he would look would he fall from a wild cherry tree.) Fig. 8.65

Dělala kotrmelce, jako když byla malá. (=lit. (She) made somersaults like when (she) was small) (=She made somersaults the same way she did when she was small.)

For the rules, see Section 6.12.1.3, "Ellipsis of the governing clause".

Figure 8.53. Comparison by means of the conjunction "jako"


Udělal to rychle, jako to udělal Tonda. (=lit. (He) did it fast, like it did Tonda)

Figure 8.54. Comparison by means of the conjunction "jako"


Udělal to rychle jako Tonda. (=lit. (He) did it fast like Tonda)

Figure 8.55. Comparison by means of the conjunction "jako"


Udělal to jako Tonda. (=lit. (He) did it like Tonda)

Figure 8.56. Comparison by means of the conjunction "jako"


Přišel stejně těžkopádně jako slon. (=lit. (He) came equally clumsily as elephant)

Figure 8.57. Comparison by means of the conjunction "jako"


Je zdravý, jako je zdravá ryba. (=lit. (He) is healthy, like is healthy fish)

Figure 8.58. Comparison by means of the conjunction "jako"


Je zdravý jako ryba. (=lit. (He) is healthy like fish)

Figure 8.59. Comparison by means of the conjunction "jako"


Je stejný jako já. (=lit. (He) is same as I)

Figure 8.60. Comparison by means of the conjunction "jako"


Požadavky jsou podobné jako u České spořitelny. (=lit. Requirements are similar as with Česká spořitelna)

Figure 8.61. Comparison by means of the conjunction "jako"


Poslanec je člověk jako každý jiný. (=lit. Deputy is man like everybody else)

Figure 8.62. Comparison by means of the conjunction "jako"


Vydělal stejně jako v zahraničí. (=lit. (He) earned the same as in abroad)

Figure 8.63. Comparison by means of the conjunction "jako"


Nemoci důvěřovat je jako pobývat u nepřitele. (=lit. Not_to_be_able to_trust is like to_be with enemy)

Figure 8.64. Comparison by means of the conjunction "jako"


Vypadá jako šelma. (=lit. Looks like beast_of_prey)

Figure 8.65. Comparison by means of the conjunction "jako"


Vypadal, jako by spadl z višně. (=lit. (He) looked like AUX fell from wild_cherry_tree)

### 8.4.2. Comparison by means of the conjunction "než" (comparison on the basis of difference)

The conjunction "než" is used for comparison based on difference.
Also in this kind of constructions, two events (or states) are compared with respect to certain degree or property/feature, which is expressed - in the case of constructions with the conjunction "než" - by an adjective or adverb in comparative. Yet also direct comparison of two entities is common. This concerns especially constructions with numbers, i.e. cases in which e.g. weight, amount, length etc. of two items is compared (by means of relevant measure units).

Unlike with comparative constructions with the conjunction "jako", the presence of the expression referring to the degree or the feature with respect to which the comparison is made is rather typical in the constructions with "než"; it is, therefore, usually not omitted at the surface level.

The following sections provide a detailed decription of various types of comparative constructions with the conjunction "než" and the rules for their analysis. We are talking about the following types of comparative constructions:

- comparing quantities (see Section 8.4.2.1, "Comparing quantities by means of the conjunction "než""),
- condensed expression of comparison (see Section 8.4.2.2, "Condensed expression of comparison with the conjunction "než""),
- comparison of two events (see Section 8.4.2.3, "Comparing two events by means of the conjunction "než"").


### 8.4.2.1. Comparing quantities by means of the conjunction "než"

Constructions in which two entities are compared on the basis of their quantitative parameters (quantity, weight, age, length etc.) are usually analyzed as containing no ellipsis. Presumably, a condensed expression like the following one is only possible when two identical units are compared:

- více korun než 50 korun (=more crowns than 50 crowns) $\rightarrow$ vice než 50 korun (=more than 50 crowns)
. The node with the CPR functor depends on the adjective or adverb in comparative. Cf.:
- částka větší.RSTR než miliarda. CPR korun (=lit. sum bigger than billion (of) crowns)

The node for $<$ než> miliarda has the CPR functor and depends on the comparative form of the adjective velký. There is no ellipsis in the construction. Cf. Fig. 8.66. NB! The following example is different: caástka velká.RSTR miliardu.EXT korun (=lit. sum big billion (of) crowns).

More examples:
pařez těžší.RSTR než $10 \mathrm{~kg} . C P R(=l i t$. stump heavier than 10 kg ) Fig. 8.67
více.EXT než 10 kg .CPR tezžký.RSTR pařez (=lit. more than 10 kg heavy stump) Fig. 8.68
Pařez má více.PAT než 10 kg .CPR ( $=$ lit. Stump has more than 10 kg ) Fig. 8.69
Pařez je těžši.PAT než $10 \mathrm{~kg} . \mathrm{CPR}$ (=lit. Stump is heavier than 10 kg ) Fig. 8.70
Pařez je více.EXT než 10 kg .CPR těžký. PAT (=lit. Stump is more than 10kg heavy) Fig. 8.71
 8.72

Více.RSTR peněz.ACT než $50 \underline{K c ̌ .}$.CPR ho nakonec uspokojilo. (=lit. More money than 50 Kc him finally satisfied) Fig. 8.73

Vrátili mu více. PAT než $50 \underline{\text { korun. }}$ CPR (=lit. (They) returned him more than 50 crowns) Fig. 8.74
Přišlo jich.ACT vic.RSTR než 50.CPR (=lit. Came (of) them more than 50; meaning: More than 50 of them came) Fig. 8.75

Lidí.ACT přišlo víc.COMPL než 50.CPR (=lit. (Of) people came more than 50) Fig. 8.76
hmotnost většíl.RSTR než $\underline{\text { 50. }}$.CPR (=lit. weight bigger than 50)
vice. EXT než $50 \mathrm{~kg} . \mathrm{CPR}$ velká. RSTR hmotnost (=lit. more than 50 kg big weight)
Hmotnost je vice. PAT než $50 \mathrm{~kg} . \mathrm{CPR}$ ( $=$ lit. Weight is more than 50 kg )
Hmotnost je více.EXT než 50 kg .CPR velká.PAT (=lit. Weight is more than 50 kg big )
Váží víc.EXT než 60 kilo.CPR (=lit (He) weighs more than 60 kg )

Hraje déle.THL než 3 hodiny.CPR (=lit. (She) plays longer than 3 hours)
Přeskočil to více.THO než šestkrát.CPR (=lit. (He) jumped_over it more than six_times)
Dostal méně.PAT než 50 korun.CPR (=lit. (He) got less than 50 crowns)
Figure 8.66. Comparing quantities by means of the conjunction "než"

částka větší než miliarda korun (=lit. sum bigger than billion crowns)

Figure 8.67. Comparing quantities by means of the conjunction "než"

pařez těžší než 10 kg (=lit. stump heavier than 10 kg )

Figure 8.68. Comparing quantities by means of the conjunction "než"

vice než 10 kg těžký pařez (=lit. more than 10 kg heavy stump)

Figure 8.69. Comparing quantities by means of the conjunction "než"


Pařez má vice než 10 kg . (=lit. Stump has more than 10 kg )

Figure 8.70. Comparing quantities by means of the conjunction "než"


Pařez je těžší než 10 kg . (=lit. Stump is heavier than 10 kg )

Figure 8.71. Comparing quantities by means of the conjunction "než"


Pařez je více než 10 kg těžký. (=lit. Stump is more than 10 kg heavy)

Figure 8.72. Comparing quantities by means of the conjunction "než"


Více než 50 Kč ho nakonec uspokojilo. (=lit. More than 50 Kč him finally satisfied)

Figure 8.73. Comparing quantities by means of the conjunction "než"


Více peněz než 50 Kč ho nakonec uspokojilo. (=lit. More money than 50 Kč him finally satisfied)

Figure 8.74. Comparing quantities by means of the conjunction "než"


Vrátili mu vice než 50 korun. (=lit. (They) returned him more than 50 crowns)

Figure 8.75. Comparing quantities by means of the conjunction "než"

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\circ
root
9
přijít.enunc
f_PRED
v decl.disp0.ind
cpl.it0.res0. ant
0
#PersPron
t_ACT
n.pron.def.pers
gender:nr.pl.3.basic
    hodně
    f_RSTR
    adj.quart.grad
    comp.basic
        0
        5 0
        f_CPR.than
        n.quant.def
        gender:nr.number:nr.basic
```

Přišlo jich víc než 50. (=lit. Came of them more than 50)

Figure 8.76. Comparing quantities by means of the conjunction "než"


Lidí přišlo víc než 50. (=lit. Of people came more than 50)
NB! In constructions with a different kind of comparison (and where no comparison is present): To je více. (=This is more); Vrátili mu vice. (=They gave him back more)), the numeral expressions like více (=more), méně (=less) are treated as adjectival numerals, which are dependent on a noun (and have the RSTR functor; see Section 8.10.2.2, "Numeral expressions "hodne"", "více", "dost", "moc", "málo", "méně", "stejně", "plno""). If there is no noun (governing the numeral) present in the surface structure, a new node is added to the construction - following the rules in Section 6.12.1.2, "Ellipsis of the governing noun". Cf.:

- Vrátili mu více.PAT než 50 korun.CPR (=lit. (They) returned him more than 50 crowns)

Comparing quantities by means of the conjunction "než". The Patient of the verb vrátit is represented directly by the indefinite numeral více; no node (for a governing noun) is added to the structure.

- Vrátili mu více než vloni (=They returned him more than last year).
$=$ Vrátili mu více.RSTR \{korun / \#EmpNoun.PAT\} než mu \{vrátili.CPR\} vloni (=They returned him more money than they returned him last year).

This is not a case of comparing quantities. The construction is to be analyzed according to the rules in Section 8.4.2.3, "Comparing two events by means of the conjunction "než"". The indefinite numeral vice is analyzed according to the rules in Section 8.10.2.2, "Numeral expressions "hodně", "více", "dost", "moc", "málo", "méně", "stejně", "plno"": it has the RSTR functor and depends on a newly established node for the governing noun.

### 8.4.2.2. Condensed expression of comparison with the conjunction "než"

A special case of comparative constructions are constructions with an adverb in comparative where the comparison is condensed (in a fixed way). For example:

Mzda se víc.EXT než.DPHR ztrojnásobila.PRED (=lit. Salary REFL more than tripled) Fig. 8.79
Non-verbal idiom "více než". In these constructions, expressions like více než (=more than), тéně než (=less than), hůře než (=worse than), hodně jak (=lit. a lot like) are considered non-verbal idioms (see Section 6.8.1, "Non-verbal idioms"): the node representing the adverb in comparative gets the EXT functor. The expression než is assigned a separate node, directly dependent on the node for the adverb in comparative; it has the t-lemma než and the DPHR functor. We are aware of the fact that this solution is rather technical and not a serious attempt to capture the meaning structure of the construction.

Examples:
Byl tam více.EXT než.DPHR tisicihlavý.RSTR zástup. (=lit. Was there more than thousand_head crowd) Fig. 8.77

Po vice.EXT než.DPHR dvacetiletém.RSTR manželství ji opustil. (=lit. After more than twenty_year marriage (he) her left) Fig. 8.78
více.EXT než.DPHR dvouleté.RSTR úsilí (=lit. more than two_year efforts)
Má vićc.EXT než.DPHR krátkou.RSTR minisukni. (=lit. (She) has more than short miniskirt)
Skončilo to více.EXT než.DPHR miliardovým.RSTR préebytkem. (=lit. Ended_up it (with) more than billion.adj surplus)

Zvýšili počet mist o více.EXT než.DPHR polovinu.DIFF (=lit. (They) increased number (of) places by more than half)

Upozornili na to více.EXT než.DPHR pred rokem.TWHEN (=lit. (They) warned about that more than a year ago)

Drak byl hůř.EXT než.DPHR škaredý. PAT (=lit. Dragon was worse than ugly)

Figure 8.77. Condensed expression of comparison


Byl tam vice než tisicihlavý zástup. (=lit. Was there more than thousand_head crowd)

Figure 8.78. Condensed expression of comparison


Po více než dvacetiletém manželství ji opustil. (=lit. After more than twenty_year marriage (he) her left)

Figure 8.79. Condensed expression of comparison


Mzda se víc než ztrojnásobila. (=lit. Salary REFL more than tripled)

### 8.4.2.3. Comparing two events by means of the conjunction "než"

When comparing two events (or states) by means of the conjunction "než", the node for the governing verb of the dependent comparative clause has the CPR functor and depends on the node for the expression referring to the degree of difference in the governing clause.

Examples:
Dorazil dříve, než dorazil.CPR Jirka. (=He arrived earlier than Jirka arrived) Fig. 8.80
Jan oslovil docenta zdvořileji, než ho oslovil.CPR kamarád. (=Jan addressed the lecturer more politely than his friend addressed him)

Expression referring to the degree of difference. The expression referring to the degree of difference is often an adverb (e.g.: dříve (=sooner/earlier), více (=more), později (=later)), or adjective (e.g.: dřívéjší (=sooner/earlier), pozděǰsí (=later), vice (=more)) in comparative. Instead of an adjective or adverb in comparative, there can also be specific pronominal expressions in the construction: jiny (=other), jindy (=other time), jinak (=other way). The node of such an expression can have different functors depending on its position in the sentence:

- if it represents an adverb, its functor is usually MANN.

For example:
Dorazil dříve.TWHEN , než dorazil.CPR Jirka. (=He arrived earlier than Jirka arrived) Fig. 8.80
Je to šroubek méně.EXT kvalitni, než jsou. CPR jinéšroubky. (=lit. Is it screw less quality than are other screws)

- in constructions with the copula "být" it has the PAT functor (especially if it represents an adjective).

For example:
Úkoly jsou náročnější.PAT, než byly.CPR minule. (=The tasks are more difficult than they were last time)

- the expression referring to the degree of difference can also modify a noun and have the RSTR functor.

For example:
Cilem je mit niž̌̌í.RSTR ceny, než má.CPR konkurence. (=The goal is to have lower prices than the competition has) Fig. 8.86

Je to menší.RSTR zlo, než jsou. CPR voličské hlasy. (=It is lesser evil than the voters' votes) Fig. 8.91

- Also the expressions spiše (=rather) and raději (=preferably) are considered expressions referring to the degree of difference. These nodes have usually the EXT functor.

For example:
Přijd' raději.EXT do pátku než \{ přijít.CPR\} přiští týden. (=Come rather before Friday than next week) Fig. 8.84

Spíše.EXT než \{ být.CPR\} \{ záruka.PAT\} vědomí jasné linie je zárukou úspěchu schopnost komunikovat. (=Rather than seeing a clear line, the ability to communicate is a guarantee of success) Fig. 8.88

Opatrnější je spišs.EXT Pavel než \{ být.CPR\} \{ opatrný.PAT\} Petr. (=Rather Pavel than Petr is cautious) Fig. 8.89

Jimá nás spiše.EXT úzkost než \{ jímat.CPR\} touha. (=What we feel is rather anxiety than desire)
Na trídní schůzky chodí spiše.EXT maminky než \{ chodit.CPR\} tatinkové. (=Rather mothers than fathers attend class meetings)

Přijd' raději.EXT pozdě než \{ přijít.CPR\} nikdy. (=Better come late than never) (NB! In the construction: Raději nepřijdu. (=I'd rather not come) the expression raději has the ATT functor.)

In comparative constructions with the conjunction "než" (unlike the constructions with the conjunction "jako"), the expression referring to the degree of comparison, i.e. the comparative, is never omitted in the surface structure. On the contrary, the presence of the comparative is obligatory in these constructions. It is therefore not necessary to introduce a t-lemma substitute for the expression referring to the degree of difference.

Ellipsis of the governing verb of the dependent clause. If the governing verb of the dependent clause is not expressed in the surface structure of the sentence, a new node with the CPR functor is inserted into the tree, following the rules in Section 6.12.1.1, "Ellipsis of the governing verb".

Examples:
Dorazil dříve než \{ dorazit.CPR\} Jirka. (=He arrived earlier than Jirka) Fig. 8.81
Pověsil obrázek nizz než \{ pověsit.CPR \} pod okno. (=He hung the picture lower than below the window) Fig. 8.82

Koupime to jinde než \{ koupit.CPR\} na trhu. (=We'll buy it at some place other than the market) Fig. 8.83

Vypadá zdravěji než \{ vypadat.CPR\} on. (=He looks healthier than him) Fig. 8.85
Jan oslovil docenta zdvořilejii než \{ oslovit.CPR \} kamarád. (=Jan addressed the lecturer more politely than his friend (did))

Má sviou původ napřiklad v zavedení nové výrobní metody dosahující nizžich výrobnich nákladů, než \{\#EmpVerb.CPR\} které má konkurence. (=...lower production cost than the one of the competition)

T-lemma substitute \#Some. When analyzing comparative constructions with the conjunction "než", the t-lemma substitute \#Some is used in some cases. A node with the t-lemma \#Some is added into the dependent clause in place of the non-expressed nominal part of the verbonominal predicate if it is impossible to copy the node from the governing clause (due to semantic reasons; in cases when this nominal part is represented by adjectives like vice (=more), méně (=less), jiný (=different)). Cf.:

- Situace v armádě je jiná. PAT než na ministerstvu. (=The situation in the army is different from that at the Ministry)
$=$ The situation in the army is different from the situation that is at the Ministry.
The dependent clause modifies the expression jiný. In place of the non-expressed governing verb of the dependent clause, a copy of the corresponding node in the governing clause is inserted. Due to semantic reasons, it is however impossible to copy the nominal part of the predicate as well; therefore, a new node with the t-lemma \#Some and the PAT functor is inserted in the relevant position. Cf. Fig. 8.92.

Another example:
Cožje více. PAT než bylo.CPR \{\#Some.CPR\} v roce 1994. (=Which is more than it was in 1994)

For more on copying of multi-word predicates, see Section 6.12.1.1.1, "Textual ellipsis of the governing verb".

In most constructions with the conjunction "než" in which the governing verbs of both clauses are part of verbonominal predicates, it is possible to copy the nominal part from the governing to the dependent clause. However, the nominal part in the dependent clause differs from the one in the governing clause in the value of the degcmp grammateme (see Section 5.5.8, "The degcmp grammateme (degree)"): while in the governing clause, the adjective is in comparative, the same adjective is in positive in the dependent clause. Cf.:

- Je zdravějši než ryba. (=He is fitter than a fish)
$=$ Je zdravěǰjsíl [degcmp=comp], než je zdravá [degcmp=pos] ryba. (=fitter than a fish is fit) (cf. Fig. 8.87)

More examples:
Je opatrněǰ̧̌í $[\mathrm{deg} \mathrm{cmp}=\mathrm{comp}]$ než $\{$ být.CPR $\}$ \{ opatrný.PAT [degcmp=pos]\} Pavel. (=He is more cautious than Pavel)

Bezpéřová lůžka jsou lepší [degcmp=comp] než \{ být.CPR\} \{dobrý.PAT [degcmp=pos]\} pérová. (=Beds without feathers are better than those with feathers)

Je to šroubek méně [degcmp=comp] kvalitní než \{ být.CPR\} \{ kvalitní.PAT [degcmp=pos]\} jiné šroubky. (=It is a screw of lower quality than other screws)

Homonymous constructions. In case of homonymy, only one of the possible meanings is chosen (and assigned an analysis), namely the one that is more likely in the given context, cf. the two meanings of the sentence:

- Zná lepšího polemika než Jan. (=He knows a better polemicist than Jan)
- Zná lepšiho polemika než zná Jan. (=He knows a better polemicist than Jan does)

With this interpretation the verb znát is copied into the dependent clause.

- Zná lepšiho polemika než je Jan (=He knows a better polemicist than Jan is).

With this interpretation the governing verb of the dependent clause is represented by a node with the \#EmpVerb t-lemma.

Comparison expressed by a deverbal adjective or noun. Comparative constructions in which the governing clause is nominalized, i.e. represented by a deverbal adjective or noun, are analyzed similarly (to the cases described above). For example:
pacient vypadající dnes zdravěji než včera (=lit. patient looking today healthier than yesterday)
Jan chovající se hůře než malé dittě (=lit. Jan behaving worse than small child)
Ellipsis of the governing clause. Similarly, also complex cases involving ellipsis of the governing clause are analyzed. For example:

Udělal větší hloupost, než když někdo ukradne kousek čokolády. (=He made a bigger mistake than when somebody steals a piece of chocolate) Fig. 8.90

For the rules, see Section 6.12.1.3, "Ellipsis of the governing clause".

## Figure 8.80. Comparison by means of the conjunction "než"



Dorazil dříve, než dorazil Jirka. (=lit. (He) arrived earlier than arrived Jirka)

Figure 8.81. Comparison by means of the conjunction "než"


Dorazil dříve než Jirka. (=lit. (He) arrived earlier than Jirka)

Figure 8.82. Comparison by means of the conjunction "než"


Pověsil obrázek nizz než pod okno. (=lit. (He) hung picture lower than below window)

Figure 8.83. Comparison by means of the conjunction "než"


Koupíme to jinde než na trhu. (=lit. (We) buy it elsewhere than on market)

Figure 8.84. Comparison by means of the conjunction "než"


Přijd' raději do pátku než přiští týden. (=lit. Come rather by Friday than next week)

Figure 8.85. Comparison by means of the conjunction "než"


Vypadá zdravěji než on. (=lit. Looks healthier than him)

Figure 8.86. Comparison by means of the conjunction "než"


Cílem je mít nižši ceny, než má konkurence. (=lit. Aim is to_have lower prices than has competition)

Figure 8.87. Comparison by means of the conjunction "než"


Je zdravější než ryba. (=lit. Is healthier than fish)

Figure 8.88. Comparison by means of the conjunction "než"


Spiše než vědomí jasné linie je zárukou úspěchu schopnost komunikovat. (=lit. Rather than consciousness (of) clear line is guarantee (of) success ability to_communicate)

Figure 8.89. Comparison by means of the conjunction "než"


Opatrnější je spiš Pavel než Petr. (=lit. More_careful is rather Pavel than Petr)

Figure 8.90. Comparison by means of the conjunction "než"


Udělal větší hloupost, než když někdo ukradne kousek čokolády. (=lit. (He) did bigger stupid thing than when someone steals piece (of) chocolate)

Figure 8.91. Comparison by means of the conjunction "než"


Je to menši zlo než voličské hlasy. (=lit. Is it lesser evil than voter's votes)

Figure 8.92. Comparison by means of the conjunction "než"


Situace v armádě je jiná než na ministerstvu. (=lit. Situation in army is different than at ministery)

### 8.4.3. Comparison expressed by adverbs, prepositions and other means

It is also possible to express comparison by:

- the genitive form of a noun, which depends on the adjective in comparative.

The CPR functor is assigned directly to the node representing the noun in genitive.
For example:
osoba starší osmnácti let.CPR (=lit. person older eighteen.GEN years, i.e. above 18) Fig. 8.94

- an adverb.

The CPR functor is assigned directly to the node representing the adverb.
For example:
Chová se andělsky.CPR (=lit. (She) behaves angel-like, i.e. like an angel)
Sám Malý, kterého historici podezirají, že byl dvojitým agentem, si počinal hazardérsky.CPR (=lit....(he) acted hazardously; i.e. like a daredevil)

## - a prepositional phrase.

Prepositions with a comparative meaning are usually secondary prepositions, e.g.: ve srovnánís ( $=$ in comparison to), naproti ( $=$ in comparison/opposition to), v protikladu $k$ ( $=$ in opposition to).

The CPR functor is assigned directly to the node representing the noun governing the prepositional phrase.

Examples of constructions where the comparison is expressed by a prepositional phrase:
Ve srovnání s tebou.CPR toho moc neumi. (=In comparison to you he cannot do much) Fig. 8.93
$V$ řiční dopravě se v roce 1994 snižil výkon v porovnánís předchozím rokem.CPR o 1,6 procenta. (=... decreased in comparison to the last year by 1.6 per cent)

Zástupci firmy považují za svou výhodu bezkonkurenční ceny ve srovnánís Vídní.CPR nebo Prahou.CPR ( $=$... good prices in comparison to Wien or Praha)

Autor nás pro jistotu nenechává na pochybách, která strana je stranou pokroku ve srovnání se zabedněným tmářstvím.CPR (=... which party is progressive when compared to the narrow-minded obscurantism)

Figure 8.93. Comparison expressed by a prepositional phrase


Ve srovnání s tebou toho moc neumí. (=lit. In comparison with you (he) it much cannot (do))

Figure 8.94. Comparison expressed by a noun in genitive dependent on an adjective in comparative

osoba starší osmnácti let (=lit. person older eighteen.GEN years)

### 8.5. Specific constructions with the meaning of "difference"

In the present section, three types of constructions are described:

- constructions with the expressions "čím - tím" (see Section 8.5.1, "Constructions with the expressions "čím - tím"").

For example:
Čím je víno starši, tím je lepši. (=The older the wine, the better it is)

- constructions with the expressions "čím dál tím + comparative" (see Section 8.5.2, "Constructions with the expressions "čím dál tím + comparative"").

For example:
Mají čím dál vic prostředků. (=They have more and more money)

- constructions with the expressions "tím + comparative" (see Section 8.5.3, "Constructions with the expressions "tím + comparative"").

```
For example:
Tím méně jsou dějiny dilem několika intelektuálů. (=Even less is history work of a couple of intel-
lectuals)
```

All the constructions above are considered constructions with the meaning of difference (the functor DIFF).

### 8.5.1. Constructions with the expressions "čím - tím"

The combination of the expressions čim and tím is interpreted as carrying the meaning of difference. For example:

- Čím je víno starší, tím je lepši. (=The older the wine, the better it is)

The meaning of the construction can be paraphrased like this: the quality of the wine grows with its age. Cf. Fig. 8.95.

Annotation rules.The expression tim in the governing clause is taken to be a supporting expression (see also Section 6.5.3, "Supporting expressions"). The effective root of the dependent clause introduced by the expression čím has the DIFF functor and is dependent on the node for the adjective in comparative in the governing clause. The node representing čím has also the DIFF functor and depends on the adjective in comparative in the dependent clause. Cf.:

- Čím.DIFF déle to odkládáme.DIFF, $\leq$ tím $>$ jsou vyšší náklady. (=The bigger the delay the bigger the costs are)

The expression tim in the governing clause is a supporting expression. The effective root node of the dependent clause introduced by čím (here the node representing odkládat) gets the DIFF functor and depends on the node representing the adjective in comparative in the governing clause (here $v y s_{s} \check{s} l$. The node representing čim has also the DIFF functor and depends on the adjective in comparative in the dependent clause (on the node for déle). Cf. Fig. 8.96.

More examples:
Čím.DIFF dřive a čim.DIFF zodpovědněji to udělají.DIFF , $\leq$ tím $>$ lépe. ( $=$ The sooner and more responsibly they do it the better) Fig. 8.97

Vážíme si jich $\leq$ tím $>$ méně, čím.DIFF více se o nich dovidáme.DIFF (=The more we know about them the less we respect them)

Podle ní by zařízení inkasovala od pojištoven <tím> méné peněz na lůžko, čím. DIFF déle by na něm pacient ležel.DIFF (=The longer time the patient spends there, the less money the hospital gets..)

Čím.DIFF je.DIFF tetováž hlubší, <tím> je složitěǰ̌ílí její odstranění a slabší výsledný kosmetický efekt. (=The deeper the tatoo is the more difficult it is to remove it..)

Ellipsis of the governing verb. Also a number of constructions in which the governing verb (either in the governing or dependent clause, or in both of them) is omitted belong to this type.

In the position of the omitted verb a new node with the \#EmpVerb t-lemma is inserted (according to the rules in Section 6.12.1.1, "Ellipsis of the governing verb").

These constructions are to be distinguished from the constructions with the expression čim dál tím (see Section 8.5.2, "Constructions with the expressions "čím dál tím + comparative""); unlike this set expression, there can be many variants here and the missing verb can be easily inferred from the context. Cf.:

- Čím vic, tím lépe. (=The more the better)
= Čím (je toho) vic, tim (je) lépe. (=The more there is of it the better it is)
Examples:
Čim \{\#EmpVerb.DIFF\} vic tim \{\#EmpVerb\} lip. (=The more the better) Fig. 8.98
Čím má.DIFF vic, tím \{\#EmpVerb\} lépe. (=The more he has the better)
Čím \{\#EmpVerb.DIFF\} miñ tím \{\#EmpVerb\} hůr. (=The less the worse)
Čím \{\#EmpVerb.DIFF\} větší tím \{\#EmpVerb\} hloupějsisi. (=The bigger the more stupid)


## Figure 8.95. Constructions with the expressions "čím - tím"



Čím je víno starší, tím je lepší. (=lit. By_what is wine older by_that (it) is better)

Figure 8.96. Constructions with the expressions "čím - tím"


Čím déle to odkládáme, tím jsou vyšši náklady. (=lit. By_what longer (we) it put_off, by_that are higher costs)

Figure 8.97. Constructions with the expressions "čím - tím"


Čím dřive a čím zodpovědněji to udělají, tím lépe. (=lit. By_what sooner and by_what in_a_more_responsible_way (they) it do, by_that better)

Figure 8.98. Constructions with the expressions "čím - tím"


Čím víc tim líp. (=lit. By_what more, by_that better)

### 8.5.2. Constructions with the expressions "čím dál tím + comparative"

A special case of construction with the meaning of difference are constructions with the set expression čím dál tím or just čím dál.

Non-verbal idiom "čím dál tím". In this type of construction, the expressions čím dál tím or čím dál are analyzed as non-verbal idioms (for the rules, see Section 6.8, "Idioms (phrasemes)"): the node representing čim has the DIFF functor and depends on the node for the comparative. The other expressions (dál tím or just dál) form the dependent part of the idiom ( t _lemma=dál_tím or t_lemma=dál; functor=DPHR). Cf:

- Čím.DIFF dál tím.DPHR víc bylo jasné, že nevyhrají. (=It was clearer and clearer that they won't win)

The node for čim has the DIFF functor and depends on the node for the comparative vic. The expressions dál and tím are represented by a single node with the t-lemma dál_tim and the DPHR functor; the node is a direct daughter of the node representing čim. Cf. Fig. 8.99.

More examples:
Mají čím.DIFF dál tím.DPHR vic prostředkĩ. (=They've got more and more money) Fig. 8.100
Dominik Tatarka se jednoduše nedá vtěsnat do úzkých (čím.DIFF dál tím.DPHR užšich) a vysokých (čim dál tím vyššich) mantinelů kultury. (=DT can't be easily squeezed into the narrow (narrower and narrower) and high (higher and higher) limits of the culture)

Zdravotní přestávky jsou čím.DIFF dál.DPHR četnější. (=Health breaks are more and more frequent and longer and longer)

Je čím.DIFF dál tím.DPHR většíl. (=He is bigger and bigger)
Mají se čím.DIFF dál tím.DPHR lépe. (=Their situation is better and better)
Figure 8.99. Constructions with the expressions "čím dál tím + comparative"


Čím dál tím víc bylo jasné, že nevyhrají. (=lit. By_what longer by_that more was clear that (they) will_not_win)

Figure 8.100. Constructions with the expressions "čím dál tím + comparative"


Mají čím dál tím víc prostředků. (=lit. (They) have by_what longer by_that more money)

### 8.5.3. Constructions with the expressions "tím + comparative"

A specific construction with the meaning of difference is a construction with the expression tim + comparative.

Annotation rules. In the constructions with tim + comparative, the node for tim is assigned the DIFF functor and is dependent on the node for the comparative. The node for the comparative gets a functor depending on its position in the structure of the sentence (often EXT). Cf.:

- Tím.DIFF větší budou hospodář̌ské ztráty. (=The heavier the losses will be)

The node for tím gets the DIFF functor and depends on the node for the comparative vétší. Cf . Fig. 8.101.

Also constructions in which the expression spiš replaces the comparative belong to this type. Cf.:

- Tím.DIFF spiš bychom neméli soudit my. (=We should judge him even less)

The node for tim gets the DIFF functor and depends on the node for spiš, which gets the EXT functor. Cf. Fig. 8.102.

More examples:
Tím.DIFF méně jsou dějiny dílem několika intelektuálů. (=Even less is history work of a couple of intellectuals)

Nechci nikoho přesvědčovat o správnosti svých úvah, tím.DIFF méně poučovat. (=I don't want to persuade anybody.. and even less patronize)

Tím.DIFF spiš našemu čtenáři děkujeme za vysvětlující doplněk. (=All the more we thank our reader for the comment)

Figure 8.101. Constructions with the expressions "tím + comparative"


Tím větši budou hospodářské ztráty. (=lit. By_that bigger will_be economic losses)

Figure 8.102. Constructions with the expressions "tím + comparative"


Tím spiš bychom neméli soudit my. (=lit. By_that more shouldn't - judge we)

### 8.6. Constructions signifying "restriction" and "exceptional conjoining"

Constructions signifying "restriction" and constructions signifying "exceptional conjoining" are constructions with two related meanings:

- a construction signifying restriction expresses an exception to which the event (or state) expressed by the governing verb does not apply.
- a construction signifying exceptional conjoining expresses an event, state or entity to which the event (or state) expressed by the governing verb also, exceptionally, applies.

Both meanings are represented by the functor RESTR (see Section 7.6.10, "RESTR"); in the resultant annotation the constructions are differentiated, however. The representation of the two types of construction are therefore described separately in the following sections.

### 8.6.1. Meaning of "restriction"

Constructions signifying restriction (restrictive constructions) are constructions which restrict the validity of a totalising expression (každý (=each), celý (=whole), všechen (=all), nic (=nothing), nikam (=nowhere) etc.), or which introduce an exception to a state of conventionality, normality or regularity. For example:

Máme všechno až na to nejdůležitěǰǰí. (=We have everything except what is most important.) Fig. 8.105
Nemám nikoho kromé tebe. (=I have nobody but you.)
Vyjma soboty všechno probihalo normálně. (=With the exception of Saturday, everything went as normal.)

Proto budou rovněž i výsledky obchodování zveřejňovány denně, kromé pondělí a neděle. (=Therefore the trading results will likewise be published daily, except for Monday and Sunday.)

The effective root node of the restrictive construction is assigned the functor RESTR and in the tectogrammatical tree it is dependent on the node for the totaliser or other expression of total quantity, state of normality, regularity or conventionality.

Substitute totaliser. If the totalising expression is not explicit at surface level, a new node with the $t$ lemma substitute \#Total is added to the tectogrammatical tree. The node with the t -lemma substitute \#Total is substituted for any absent positive totaliser (všichni (=all), všechno (=everything), každý (=each), všude (=everywhere), vždycky (=always)) and the negative (nic (=nothing), nikdo (=nobody), žádný (=no/none), nikam (=nowhere), nikdy (=never)). The newly established node for the totaliser has a functor corresponding to the position in which it was inserted.

Additional examples:
Mimo tebe.RESTR nepřišel nikdo. (=Apart from you, nobody came.) Fig. 8.103
Mimo datum.RESTR se pissí \{\#Total.RSTR\} radové čislice slovy. (=Except for dates, ordinal numerals are written in words.) Fig. 8.104

Figure 8.103. Construction signifying restriction


Mimo tebe nepřišel nikdo . (=lit. Apart_from you, not_came nobody.)

Figure 8.104. Construction signifying restriction


Mimo datum se piší řadové čislice slovy. (=lit. Except_for dates REFL write ordinal numerals in_words.)
Constructions signifying restriction are divided into three groups:

- constructions signifying restriction attached by prepositions (see Section 8.6.1.1, "Constructions signifying "restriction" attached by prepositions"),
- constructions signifying restriction attached by connectives (see Section 8.6.1.2, "Constructions signifying "restriction" attached by connectives"),
- constructions signifying restriction of the type "nezbývá než doufat (=one can only hope)" (see Section 8.6.1.3, "Constructions signifying restriction of the type "nezbývá než doufat (=one can only hope)'"').
!!! Rules for the representation of constructions signifying restriction and exceptional conjoining have been created gradually during the course of the annotation. It was not possible to revise all annotated trees according to the definitive rules before the issue of PDT 2.0. The assignment of the functor RESTR is reliable, but not the structure of the tectogrammatical tree. The effective root node of a construction signifying restriction is in most cases not dependent on the node for the totalising expression but directly on the governing verb of the main clause.


### 8.6.1.1. Constructions signifying "restriction" attached by prepositions

Constructions signifying restriction are commonly attached by the prepositions:
kromě (=besides/except)
mimo (=except)
vedle (=apart from)
vyjma (=except)
až na (=except for)
$s$ vyjimkou (=with the exception)
Restrictive constructions attached by prepositions are divided into:

## - direct restriction .

The effective root node of the restrictive construction is the node representing the governing (syntactic) noun of the prepositional group.

- restriction with ellipsis of the verb.

The effective root node of the restrictive construction is not the node representing the governing (syntactic) noun of the prepositional phrase but the newly established node for the verb.

- restriction attached by the expression "kromě/vedle/mimo toho, že". (=besides/apart from the fact that)

Direct restriction. The node representing the governing (syntactic) noun of the prepositional phrase is the effective root node of the restrictive construction in cases where this noun is in the case governed by the preposition. (A reference to the preposition is stored in the attribute a/aux.rf at the node of the governing noun.)

With the prepositions $a z z n a$ (=except for), $s$ výjimkou (=with the exception) the node representing the governing noun of the prepositional phrase is always the effective root node of the restrictive construction. Nouns following these prepositions are always in the case governed by the prepositions. For example:

Máme všechno až na to.RESTR nejdůležitější. (=We have everything except what is most important.) Fig. 8.105

With the prepositions kromé (=besides/except), mimo (=except), vedle (=apartfrom), vyjma (=except) the effective root node of the restrictive construction is the node representing the governing noun of the prepositional phrase only when the noun is in the case governed by the preposition; thus: kromé+2, mimo +4 (in the texts substandardly also with genitive), vedle +2 , vyjma +2 . For example:

Kromě tohoto túdne.RESTR budu učit pravidelně. (=Except this week I will be teaching regularly.) Fig. 8.106

Kromě otevření.RESTR hranic nebyly vytvořeny žádné stimulující podmínky pro cestovní ruch. (=Apart from the opening of the border, no conditions were created to encourage tourism.) Fig. 8.107

Kromě Jihočeské keramiky.RESTR nepatří \{\#Total.RSTR\} tyto firmy mezi nejsilnějši. (=Except South Bohemian Ceramics, these companies are not amongst the strongest.) Fig. 8.108

Restriction with ellipsis of the verb. The newly established node for the verb is the effective root node of the restrictive construction in cases where the governing (syntactic) noun of the prepositional phrase is in a different case, not that governed by the preposition, or where the prepositions kromé (=besides, except), mimo (=except), vedle (=apart from) or vyjma (=excepting) are followed by a further prepositional phrase. (Reference to the preposition is stored in the attribute a/aux.rf at the added node for the verb.)

The newly added node is usually a copy of the node for the verb in the main clause (or a node with the t-lemma substitute \#EmpVerb is added). The rule regarding negation of an added verb is: if the verb in the main clause is negated, the newly added verb is not negated, and vice versa. Cf.:

- Kromě do Prahy chtěli jet všude. (=Except for Prague (lit. to Prague), they wanted to go everywhere.)

> = Kromě toho, že nechtěli jet do Prahy, chtěli jet všude. (=Apart from the fact that they did not want to go to Prague, they wanted to go everywhere.)

The effective root node of the restrictive construction will be the newly established node for the verb which will be a copy of the node for the verb in the main clause. Under the newly established node for the verb is inserted a node for syntactic negation ( $t$ _lemma=\#Neg; functor=RHEM). Cf. Fig. 8.109.

The reason for the addition of a node for the verb is that the existing case form of the noun phrase is not determined by the preceding preposition; thus the case form of the noun phrase in the restrictive construction can only be explained if it is a modification of the elided verb, which also enables the noun phrase to be assigned a corresponding functor, which would otherwise be covered by the functor RESTR.

Cf:

- kromě Pavla (=except Paul); kromě Prahy (=except Prague); kromě ledna (=except January); mimo tebe (=except you); vedle historie (=apart from history)

These prepositional phrases are represented by one node with the functor RESTR (direct restriction).

- kromě mamince (=except to mum); kromé do Prahy (=except to Prague); mimo do Prahy (=except to Prague); vyjma od tebe (=except from you); vedle do Prahy (=apart from (going) to Prague)

These expressions are treated as constructions with ellipsis of the verb on which the noun phrase following the prepositions kromě (=except), mimo (=except), vedle (=apart from) or vyjma (=except) is dependent (restriction with ellipsis of the verb).
!!! Constructions in which the prepositions (kromě, mimo, vedle) would be followed by a form other than that governed by the preposition do not, however, occur in PDT.

Restriction attached by the expression "kromě/vedle/mimo toho, že (=except for/apart from the fact that)". In restrictive constructions attached by the expression "kromě/vedle/mimo toho, že (=besides/except for the fact that)" the expression "toho (=the fact)" is treated as a supporting expression (see Section 6.5.3, "Supporting expressions") and the functor RESTR is assigned to the effective root node of the dependent clause. For example:
$\leq$ Kromé toho, že $>$ krásně zpivá. RESTR, neumi nic. (=Apart from the fact that he/she sings beautifully, he/she is not capable of anything.) Fig. 8.110

NB! Not every construction containing a totalising expression signifies restriction. The construction may contain a totaliser which is not restricted. The construction then signifies exceptional conjoining. Cf.:

- Kromě historie studovala všechno. (=Except history, she studied everything.)
$=$ Studovala všechno, jenom nestudovala historii. (=She studied everything; she only omitted to study history.)

The construction signifies restriction.

- Kromě historie studovala i všechno ostatní. (=Besides history, she also studied everything else.)
$=$ Studovala historii i všechno ostatní. (=She studied history and also everything else.)
The construction signifies exceptional conjoining.
The clause may also be homonymous, as far as signifying restriction or exceptional conjoining is concerned. The homonymy of the construction is removed in annotation (on the basis of the context). Cf.:
- Kromě ní přišla celá parta. (=Except her the whole crowd came.)
- Celá parta přišla, jen ona nepřišla. (=The whole crowd came; she was the only one who didn't come.)

The meaning of restriction.

- = Přišla ona i celá parta. (=She came, and the whole crowd as well.)

The meaning of exceptional conjoining.
Figure 8.105. Construction signifying restriction


Máme všechno až na to nejdůležitější. (=lit. (We) have everything except for that most important.)

Figure 8.106. Construction signifying restriction


Kromě tohoto týdne budu učit pravidelně. (=lit. Except this week, (I) will be_teaching regularly.)

Figure 8.107. Construction signifying restriction


Kromě otevření hranic nebyly vytvořeny žádné stimulující podminky pro cestovní ruch. (=lit. Apart_ from (the) opening (of the) border, not_were created no stimulating conditions for - tourism.)

Figure 8.108. Construction signifying restriction


Kromě Jihočeské keramiky nepatří tyto firmy mezi nejsilnější. (=lit. Except South_Bohemian Ceramics do_not_belong these companies amongst the_strongest.)

Figure 8.109. Construction signifying restriction


Kromě do Prahy chtěli jet všude. (=Except to Prague, (they) wanted to go everywhere.)

Figure 8.110. Construction signifying restriction


Kromě toho, že krásně zpívá, neumí nic. (=lit. Apart_ from that that (he/she) beautifully sings, (he/she) cannot_do nothing.)

### 8.6.1.2. Constructions signifying "restriction" attached by connectives

Constructions signifying restriction are commonly attached by the connectives:

```
než (=than)
nežli (=than)
leda (=unless)
ledaže (=unless)
```

Constructions signifying restriction attached by connectives are always interpreted as dependent verbal clauses (see Section 6.4, "Verbal and non-verbal clauses").

Thus if no governing verb is present at surface level in the restrictive construction attached by a connective, a new node is added to the tectogrammatical tree in the place of this absent verb. The newly established node is usually a copy of the node for the verb in the main clause (sometimes a node is added with the t-lemma substitute \#EmpVerb). The rule relating to the negation of an added verb is: if the main clause contains a negated verb, the newly established verb is not negated, and vice versa.

Examples:
To nikde na světě není než \{ být.RESTR \} u nás doma. (=That does not exist anywhere in the world except in our country.) Fig. 8.111

Maminka nechodí \{\#Total.DIR3\} než \{ chodit.RESTR\} ksousedkám. (=Mum doesn't go anywhere except to the neighbours'.) Fig. 8.112

Není možné se soustředit na nic jiného než \{ soustředit_se.RESTR\} na vše přehlušujicí hluk. (=It is impossible to concentrate on anything other than the deafening noise.) Fig. 8.113

Nepovím \{\#Total.EFF\}, leda by na to přišli.RESTR sami. (=I won't say, unless they find out for themselves.) Fig. 8.114

Nikoho tam nepouštěj, leda by přišel.RESTR nëkdo z úřadu. (=Don't let anybody in, unless someone from the office comes.) Fig. 8.115

The reason for the addition of the verb is that the conjunction does not require a specific construction, thus the case form of the nouns in the restrictive construction can only be explained if there is a verb in the structure, although not present at surface level; this also enables the noun phrase to be assigned an appropriate functor, which would otherwise be covered by the functor RESTR.

The meaning of "restriction" vs. the meaning of "comparison". Constructions signifying restriction are formally (and frequently semantically) associated with other constructions attached by the same connectives. In particular, certain restrictive constructions attached by the conjuction nezz (=than) are similar to constructions signifying comparison (see Section 8.4, "Constructions with the meaning of "comparison""). Constructions with the expressions jinak než (=other than), jindy než ( $=$ at a time other than), jinde nezz (=elsewhere than), jiný než (=other than) etc. are constructions which (apart from set idiomatic phrases, see Section 8.6.1.3, "Constructions signifying restriction of the type "nezbývá než doufat (=one can only hope)'"') are represented as constructions signifying comparison. Only constructions with true totalisers are represented as restrictive: nikde než (=nowhere but), nic než (=nothing but), nikam než (=nowhere but). Constructions in which both types of expression occur in pairs: nikam jinam (=(to) nowhere else), nikde jinde (=nowhere else), nic jiného (=nothing else) are represented as constructions signifying restriction. Cf.:

- Nepůjdu nikam než do Prahy. (=I won't go anywhere but Prague.)

The restrictive meaning is represented in the construction. Cf. Fig. 8.116.

- Nepůjdu nikam jinam než do Prahy. (=I won't go anywhere else but Prague.)

The restrictive meaning is represented in the construction. Cf. Fig. 8.117.

- Nepůjdu jinam než do Prahy. (=I won't go anywhere else but Prague.)

The meaning of comparison is represented in the construction.

Figure 8.111. Construction signifying restriction


To nikde na světě není než u nás doma. (=lit. That nowhere in (the) world is_not except at us home.)

Figure 8.112. Construction signifying restriction


Maminka nechodí než k sousedkám. (=lit. Mum doesn 't go (anywhere) except to (the) neighbours '.)

Figure 8.113. Construction signifying restriction
$\circ$
$\vdots$
root

f_PRED
'v decl.disp0.ind
proc.ito.res0.sim
ロ
\#Neg možný soustředit_se
f_RHEM f_PAT f_ACT
atom / adj.denot vdecl.dispmod:nil.verbmod:nil
pos.neg0 cpl.it0.res0.tense:nil

\#Benef \#Cor t_PAT $\begin{array}{lll}\text { t_BEN. nr } & \text { t_ACT } & \text { t_PAT } \\ \text { qcomplex } & \text { qcomplex } & \text { n.pron. inde }\end{array}$

soustředit_se
t_RESTR
v decl.dispmod: nil. verbmod: ni

t_ACT f_PAT qcomplex n.denot inan.sg
přehlušuícici
f_RSTR
adj.denot
pos.neg0
6
f_PAT
n.pron. indef neut.total1.sg. 3

Není možné se soustředit na nic jiného než na vše přehlušujicí hluk. (=lit. (It) is_not possible REFL to_concentrate on nothing other than on (the) all covering noise.)

Figure 8.114. Construction signifying restriction


Nepovím, leda by na to přišli sami. (=lit. (I) won't_say, unless (they) would - that find_out for_themselves.)

Figure 8.115. Construction signifying restriction


Nikoho tam nepouštěj, leda by přišel někdo z úřadu. (=lit. Nobody there let_in, unless would come someone from (the) office.)

Figure 8.116. Construction signifying restriction


Nepůjdu nikam než do Prahy (=lit. (I) won't_go nowhere except to Prague.)

Figure 8.117. Construction signifying restriction


Nepůjdu nikam jinam než do Prahy (=lit. (I) won't_go nowhere else except to Prague.)

### 8.6.1.3. Constructions signifying restriction of the type "nezbývá než doufat (=one can only hope)"

The following set idiomatic phrases are also represented as constructions signifying restriction:

- nezbývá než (=one can only) + infinitive,
- nelze než (=one cannot but) + infinitive,
- other similar constructions

Examples:
Nezbývá mi nic než doufat.RESTR (=All I can do is hope.) Fig. 8.118
Nelze $\{\#$ Total.ACT\} než věřit.RESTR (=One can only have faith.) Fig. 8.119
Nezbývá mi jiný prostředek než použít.RESTR násili. (=The only means left to me is the use of force.) Fig. 8.120

Nemohu nic než doufat.RESTR (=I can do no more than hope.)

Here, the functor RESTR has its own node representing the infinitive of the verb (no copy of the node for the verb in the main clause - zbývat (=to remain), lze (=is possible) etc. - is added to the tectogrammatical tree). The node for the expressed infinitive with the functor RESTR is dependent on the totaliser nic (=nothing) (or on a synonym, for example: jiná možnost (=another possibility), jiný prostředek
(=other means), jiná věc (=another thing)). If the totaliser is not expressed at surface level, a new node with the t-lemma substitute \#Total is added to the construction.

NB! Only semantically empty expressions are treated as synonymous with the totaliser nic (=nothing). Other constructions with the phrase jiný než (=other than) are represented as constructions signifying comparison (see Section 8.4, "Constructions with the meaning of "comparison""). Cf.:

- Nezbývá mi jiný prostředek než použít násilí. (=The only means left to me is the use of force.)
= Nezbývá mi nic než použít násilí. (=All that is left to me is the use of force.)
Here, the phrase jiný prostředek (=other means) is synonymous with the totaliser nic (=nothing); therefore the meaning of restriction is represented in the construction. Cf. Fig. 8.120.
- Používám jiný prostředek/prášek na praní než Palmex. (=I use a different washing powder, not Palmex.)

Here, the phrase jiný prostředek (=lit. another means) is not synonymous with the totaliser nic (=nothing); the meaning of comparison is represented in the construction.

NB! The phrase nic (=nothing) + comparative is represented as comparison. Cf.:

- Nenapadá mě nic logičtějšího než podat demisi. (=I cannot think of anything more logical than to resign.)

The effective root node of the construction attached by the conjunction než (=than) has the functor CPR and it is dependent on the node representing the comparative logičtějšíl (=more logical).

Figure 8.118. Construction of the type "nezbývá než doufat"


Nezbývá mi nic než doufat. (=lit. Not_is_left for_me nothing but to_hope.)

Figure 8.119. Construction of the type "nezbývá než doufat"


Nelze než věřit. (=lit. Is_not_possible but to_have faith.)

Figure 8.120. Construction of the type "nezbývá než doufat"


Nezbývá mi jiný prostředek než použít násilí. (=lit. Is_not_left to_me another means but to_use force)

### 8.6.2. The meaning of "exceptional conjoining"

Constructions identified as constructions signifying exceptional conjoining are constructions in which the typical restrictive meaning of the preposition is absent but which do not have the meaning of simple conjoining either. Both conjoined constituents are semantically more closely defined: one by the meaning of "commonplace, self-evident", the other conjoined constituent, by contrast, has the meaning of "unusual, exceptional".

The meaning of exceptional conjoining is expressed by the prepositions:
kromě (=besides/except)
mimo (=except)
vedle (=apart from/as well as)
Cf:

- Kromé ní tam byl i Mirek. (=Besides her, Mirek was there as well.)
= Byla tam nejen ona, ale i Mirek. (=Not only she was there, but Mirek as well.) Cf. Fig. 8.121.

The effective root node of the construction signifying exceptional conjoining is assigned the functor RESTR and in the tectogrammatical tree it is dependent on the node for the governing verb of the governing clause.

In the annotation of constructions signifying exceptional conjoining a distinction is made between:

- direct exceptional conjoining .

The effective root node of the construction signifying exceptional conjoining is the node representing the governing (syntactic) noun of the prepositional phrase.

- exceptional conjoining with ellipsis of the verb.

The effective root node of the construction signifying exceptional conjoining is not the node representing the governing (syntactic) noun of the prepositional phrase, but the newly established node for the verb.

- exceptional conjoining attached by the expression "kromě/vedle/mimo toho, že (=besides/except for the fact that)".

Direct exceptional conjoining. The node representing the governing (syntactic) noun of the prepositional phrase is the effective root node of the construction signifying exceptional conjoining in cases where this noun is in the case governed by the preposition, i.e. kromé+2, mimo +4 (in the texts the genitive is also - substandardly - used), vedle +2 . (Reference to the preposition is stored in the attribute a/aux.rf at the node of the governing noun.)

Examples:
Kromě legislativnich změn.RESTR došlo i $k$ věcným změnám. (=Besides the legislative changes, material changes also took place.) Fig. 8.123

Vedle historie.RESTR studovala češtinu. (=Besides history, she studied Czech.)
Kromé základnich údajů.RESTR , které takové reklamy obvykle mají, uváděl i důležité informace pro kupujíci. (=Besides the basic data such advertisements usually contain, it also provided useful information for shoppers.)

Kromé informací. RESTR o české ekonomice přináśíme i seznam firem, které mají zájem obchodovat. (=Besides information about the Czech economy, we also offer a list of companies interested in trading.)

Two events can also be directly connected. The prepositions kromé (=besides) (mimo (=besides), vedle (=as well as)) are followed by:

- nominalisation of the verb (deverbal or event noun).

For example:
Kromě prodeje.RESTR chce slovinská firma v ČR i vyrábět. (=Besides selling, the Slovenian company also wants to manufacture in the Czech Republic.) Fig. 8.125

Měli jste k tomu kromě zvýséní.RESTR příjmů ještě jiné důvody? (=Did you have any other reasons for this apart from the pay rise?)

Kromě hraní.RESTR na klavir ještě zpivá. (=Besides playing the piano, he/she sings as well.)

- the pronoun referring to the event (a relationship of co-reference is represented between the pronoun and the verb, deverbal or event noun).

For example:

# (Mnoho informacíje na Internetu.) Kromě toho.RESTR ve všech novinách jsou dnes o tom rubriky. (=(There is a lot of information on the Internet.) Besides that, all the newspapers carry headlines about it today.) Fig. 8.126 

(O prázdninách budu pracovat na zahradě.) Kromě toho.RESTR pojedu do Německa. (=(During the holidays I will work in the garden.) Besides that, I will go to Germany.)

In the annotation of constructions with the set expressions kromé jiného (=inter alia), mimo jiné (=inter alia) a new node is added to the tectogrammatical tree for the noun governing the adjective jin' (=other), a node with the t-lemma substitute \#EmpNoun. This added node has the functor RESTR and is dependent on the effective root node of the main clause. For example:

Děti budou na soutěži mimo \{\#EmpNoun.RESTR \} jiné i skákat v pytlich. (=At the contest, the children will, amongst other things, take part in a sack race.) Fig. 8.127

Kromé \{\#EmpNoun.RESTR\} jiného má nárok i na byt. (=Amongst other things, he/she also has the right to an apartment.) Fig. 8.128

Institut kromě \{\#EmpNoun.RESTR\} jiného zjistil, že při používání biohrnce docházi ke spálení povrchového laku. (=Amongst other things, the Institute discovered that the the painted surface was burned when the bio-pan was used.)
!!! The abbreviation $m j$. (=inter alia) is represented by a node with the t-lemma $m j$. in the data. The functor RESTR is assigned directly to this node.

Exceptional conjoining with ellipsis of the verb. The newly established node for the verb is the effective root node of the construction signifying exceptional conjoining in cases where the governing (syntactic) noun of the prepositional phrase is in a case other than that governed by the preposition, or if the prepositions kromé (=besides), mimo (=besides) and vedle (=apart from/as well as) are followed by another prepositional phrase. (A reference to the preposition is stored in the attribute a/aux.rf at the added node for the verb.)

The newly established node is usually a copy of the node for the verb in the main clause (a node with the t-lemma substitute \#EmpVerb may be added). The rule regarding negation of the added verb is: if the verb in the main clause is negated, the added verb is also negated and vice versa. Cf.:

- Kromé do Říma chtěli jet i do Benátek. (=Besides Rome, they also wanted to go to Venice.)
= Kromě toho, že chtěli jet do Říma, chtěli jet i do Benátek. (=Besides wanting to go to Rome, they also wanted to go to Venice.)

The effective root node of the construction signifying exceptional conjoining will be a newly established node for the verb, which will be a copy of the node for the verb in the main clause. Cf. Fig. 8.122.

The reason for the addition of a node for the verb is the fact that the existing case form of the noun phrase is not determined by the preceding preposition; thus the case form of the noun phrase in the restrictive construction can only come from the elided verb; this analysis also enables the noun phrase to be assigned a corresponding functor, which would otherwise be covered by the functor RESTR.
!!! However, constructions in which the prepositions (kromě (=except/besides), mimo (=except), vedle (=apart from/as well as)) are followed by a form other than that governed by the preposition do not occur in PDT.

Exceptional conjoining attached by the expression "kromě/vedle/mimo toho, že (=besides/as well as/apart from the fact that)". In constructions attached by the expression "kromě/vedle/mimo toho, že (=besides/as well as/apart from the fact that)" the expression "toho (=the fact)" is treated as a supporting word (see Section 6.5.3, "Supporting expressions") and the functor RESTR is assigned to the effective root node of the dependent clause. For example:
$\leq$ Kromé toho, že $>$ byl.RESTR učitelem, byl i dobrým člověkem. (=Besides being a teacher, he was also a good man.) Fig. 8.124
!!! The method of representing constructions signifying exceptional conjoining will have to be re-assessed. The existing solution does not indicate with which modification of the main clause the constituent attached by the preposition kromé (=except/besides) (mimo (=except/besides), vedle (=apart from/as well as)) is conjoined. Cf.:

- Kromě Pavla políbila dcerušku i matka. (=Besides Paul, the mother also kissed the little daughter.)
$=$ Nejen Pavel, ale i matka políbila dcerušku. (=Not only Paul, but also the mother kissed the little daughter.)
- Kromě Pavla polibila matka i dcerušku. (=Besides Paul, the mother also kissed the little daughter.) $=$ Matka polibila nejen Pavla, ale i dcerušku. (=The mother kissed not only Paul but also the little daughter.)

Figure 8.121. Construction signifying exceptional conjoining


Kromé ní tam byl i Mirek. (=lit. Besides her there was also Mirek.)

Figure 8.122. Construction signifying exceptional conjoining


Kromé do Říma chtěli jet i do Benátek. (=lit. Besides to Rome (they) wanted to go also to Venice.)
Figure 8.123. Construction signifying exceptional conjoining


Kromě legislativních změn došlo i $k$ věcným změnám. (=lit. Besides legislative changes took place also - material changes )

Figure 8.124. Construction signifying exceptional conjoining


Kromě toho, že byl učitelem, byl i dobrým člověkem. (=lit. Besides that, that (he) was (a) teacher, (he) was also (a) good man.)

Figure 8.125. Construction signifying exceptional conjoining


Kromě prodeje chce slovinská firma v ČR i vyrábět. (=lit. Besides selling, wants (the) Slovenian company in CR also to_manufacture.)

Figure 8.126. Construction signifying exceptional conjoining

(Mnoho informací je na Internetu.) Kromě toho ve všech novinách jsou dnes o tom rubriky. (=(There is a lot of information on the Internet.) lit. Besides that in all newspapers are today about it headlines.)

Figure 8.127. Construction signifying exceptional conjoining


Děti budou na soutěži mimo jiné i skákat v pytlich. (=lit. Children will at (the) contest amongst other (things) also jump in sacks.)

Figure 8.128. Construction signifying exceptional conjoining


Kromé jiného má nárok i na byt. (=lit. Amongst other (things) (he/she) has (the) right also to (an/the) apartment.)

### 8.7. Constructions with a dependent consecutive clause

A dependent consecutive clause is such a clause that refers to a result that is a consequence of the high or low degree of an aspect/circumstance of the event in the governing clause. A dependent consecutive clause is introduced (in the governing clause) by expressions expressing the high or low degree of an aspect/circumstance of the event, e.g.: tolik (=so much), natolik (=to such a degree), přiliš (=too), tak (=so), takový (=such), dost (=enough), dostatečně (=enough), do té miry (=to that extent).

We distinguish:

- the governing clause.

The governing clause contains:

- the expression referring to the high or low degree of an aspect of the governing event.
- the dependent consecutive clause
- the (subordinating) connective.

The dependent consecutive clause is usually connected by the following connectives:

- že,
- než aby,
- na to aby.

Example:

- Mám ruce zmrzlé tak, že je nenatáhnu. (=My hands are so frozen that I can't stretch them)

The governing clause: Mám ruce zmrzlé tak.
The expression referring to the high or low degree of an aspect of the governing event: tak.
The dependent consecutive clause: že je nenatáhnu.
Representing constructions with a dependent consecutive clause. The node representing the expression referring to the high or low degree of an aspect of the governing event has the functor corresponding to its position in the clause; if it is not a valency modification, it is usually EXT. The node representing the governing verb of the consecutive clause has the RESL functor and always depends on the node for the expression referring to the high or low degree (of an aspect of the governing event). The references to the connectives are in the a/aux.rf attribute of the effective root node of the dependent clause. Cf.:

- Byl přiliš.EXT zodpovědný, než aby spekuloval.RESL (=He was too responsible to speculate)

The effective root node of the dependent consecutive clause (functor=RESL) depends on the node representing príliš. Cf. Fig. 8.130.

More examples:
Vedoucí je takov́́.PAT, že ho obdivujeme.RESL (=Our boss is such that we all admire him) Fig. 8.129

Nikdo si nedovede představit, s čím. PAT by musela přijít, aby k ní přešlo.RESL půl miliónu lidí. (=Nobody can imagine what it would have to come with to attract half a million people) Fig. 8.132

On je vedoucí.PAT takovź.COMPL, že jim ho závidime.RESL (=He is such a boss that we envy them)
Vychrlil řadu tak.EXT vážných obvinění, že jedno by vydalo.RESL na trest nejméně pět let. (=He made a number of accusations serious to such an extent that one of them would lead to a five-year sentence)

Zpivali tak.EXT hlasitě, až/že se hory zelenaly.RESL (=They were singing so loudly that the mountains turned green)

Bylo jí tolik.RSTR let, že by mohla být.RESL jeho matkou. (=She was so old that she could be his mother)

Je natolik.EXT důležitá, že s ní viobec jedná.RESL (=She is so important that she talks to her)
Ellipsis of the expression referring to the high or low degree of an aspect of the governing event. The expression referring to the high or low degree of an aspect of the governing event can be omitted in the surface form of a sentence; then, a new node with the t-lemma substitute \#AsMuch and a corresponding functor (usually EXT) is inserted in its position. The node with the t -lemma substitute \#AsMuch stands in place of the expression referring to the high or low degree (e.g.: tak málo (=so few/little), tak špatně (=so badly), tak dobře (=so well), tak hodně (=so much/many), tak moc (=so much/many)). Cf.:

- Opravil nám televizor, že za dva dny nefungoval. (=He repaired the TV (in such a way) that it didn't work in two days again)
$=$ He repaired the TV so badly that it didn't work in two days again.
In place of the absent expression referring to the high or low degree of an aspect of the governing event, a new node with the t-lemma substitute \#AsMuch and the EXT functor is inserted. The effective root node of the dependent consecutive clause depends on this newly established node. Cf. Fig. 8.131.

More examples:
Zpivali \{\#AsMuch.EXT]\}, až se hory zelenaly.RESL (=They were singing (so much) that the mountains turned green)

Má prsty ztuhlé \{\#AsMuch.EXT]\}, že je nenarovná.RESL (=His fingers are (so) frozen that he cannot stretch them)

Figure 8.129. Dependent consecutive clause


Vedoucí je takový, že ho obdivujeme. (=lit. Boss is (he) such that (we) him admire)

Figure 8.130. Dependent consecutive clause


Byl přiliš zodpovědný, než aby spekuloval. (=lit. (He) was too responsible than so_that (he) speculated)

Figure 8.131. Dependent consecutive clause


Opravil nám televizor, že za dva dny nefungoval. (=lit. (He) repaired us TV_set that after two days (it) didn't_work)

Figure 8.132. Dependent consecutive clause


Nikdo si nedovede představit, s čím by musela přijít, aby k ní přešlo půl miliónu lidí. (=lit. Nobody REFL cannot imagine with what (it) would have_to come so_that to it came half million people)

### 8.8. Identifying expressions

This section describes the annotation of expressions used to signify identification; by identifying expressions are meant:

- proper nouns and titles (see Section 8.8.2, "Proper nouns and titles").

For example: Praha (=Prague), Českomoravská vrchovina (=The Czech-Moravian Uplands), Pavel Novák (=Pavel Novák/lit. Paul Newman), Organizace pro bezpečnost a spolupráci v Evropě (=Organisation for Security and Co-operation in Europe).

- explicative genitives.

For example: otázka laickosti (=the question of laity), trest smrti (=the death penalty).

- expressions used metalinguistically (see Section 8.8.3, "Expressions used metalinguistically").

For example: slovo pravda (=the word truth), nápis "Odejděte" (=the sign "Go away").
The basic rules for the annotation of identifying expressions are described in Section 8.8.1, "Basic rules for the annotation of identifying expressions". In the following sub-sections the respective types of identifying expressions are described in more detail.
!!! More complex rules for the annotation of identifying expressions remain to be developed. In this section the current status of the annotation rules is described.
!!! Rules for the annotation of identifying expressions have been gradually developed in the course of the annotation process. No subsequent checking of the representation of identifying expressions according to the latest version of the rules has been carried out in our data. The annotation is therefore very inconsistent.

### 8.8.1. Basic rules for the annotation of identifying expressions

For purposes of annotation, identifying expressions are divided into:
A. identifying expressions with a declinable governing constituent.

The governing constituent of identifying expressions in this group is usually a regularly declinable noun, but it can also be an adjective or a numeral.

Examples: Petr (=Peter), Národní divadlo (=The National Theatre), Babička (=Grandma), Karlova univerzita (=Charles University), Nové město nad Metují (=Nové město nad Metují (name of a town)), Krkonoše (=The Giant Mountains), Osudová (=Beethoven's Fifth Symphony), Vltavská (=Vltavská (name of a street or metro station)), Mostecká uhelná (=The Most Colliery Company), (nápis) "Vy a vaši přátelé" (=(the sign) ,, You and your friends"), (pojem) čas (=(the concept of) time).

This includes identifying expressions with more than one governing constituent (i.e. a paratactic connection), if all its governing constituents are declined in the appropriate case:

Examples: Čtu Timura a jeho partu. (=I am reading Timur and his Friends.); Pustíme si Prince a Večernici (=Let's watch The Prince and the Evening Star (film of a fairy tale)), (pohádka) Bob a Bobek, králici z klobouku (=(the children's story) Bob and Bobek, Rabbits out of the Hat.).

This type includes explicative genitives: (pojem) času (=(the concept of) time), (otázka) laickosti (=(the question of) laity).
B. other identifying expressions.

All other identifying expressions which do not satisfy the criteria of the first group A, form a second group of titles. These include:

- identifying expressions with a non-declinable governing constituent, remaining in the nominative in all positions, including paratactic connections.

Examples: Utkali se s Bayern Mnichov (=They played Bayern Munich); Čtu Timur a jeho parta.(=I am reading Timur and his Friends.)

- identifying expressions containing an invariable case form of a noun.

Examples: Matičce (=To Mother (cycle of poems)), Sluncem a stínem (=Sun and Shade (poetry)).

- identifying expressions formed by a prepositional phrase.

Examples: Proti všem (=Against All (historical novel)), U Medvídků (=The Little Bears (pub name)), (spojeni) "s výjimkou" (=(the phrase) "with the exception").

- identifying expressions whose governing constituent is a verbal form.

Examples: Byli a bylo (=They were and it was (memoirs)), Zpiváno z dálky (=Sung from a Distance (poetry)); Zde by měly kvést růže (=Roses should bloom here (stories in verse)); Obsluhoval jsem anglického krále (=I served the King of England (novel)), (cedule s nápisem) "Romy neobsluhujeme." (=(a notice with the inscription) "We don't serve Romanies")

- identifying expressions formed by invariable parts of speech.

Examples: (návrh zákona) Třikrát a dost (=(parliamentary bill) Three times is enough), Hej rup! (=Heave ho! (comedy show)), (pismeno) "č" (=(the letter) "č").

The nominative of identity. The nominative of identity is a modification of a noun (generic common noun) introducing a proper noun, a title, an expression used metalinguistically or an expression quoted word for word.

A nominative of identity is represented as an identification structure - see Section 8.8.1.3, "Identification structure".

The typical position of the nominative of identity, the position of a noun in the nominative, is occupied by identifying expressions from group A. For example:
symfonická báseň Vltava. ID (=the symphonic poem Vltava)
hory Krkonoše. ID (=The Giant Mountains)
kniha Timur. ID a jeho parta.ID (=the book Timur and his Friends)
pojem čas.ID (=the concept of time)
The non-declinable nominative is, however, only one of the possible occupiers of this position. An identifying expression can take a variety of forms (any form). Identifying expressions from group B, in particular, frequently occupy the position of the nominative of identity. For example:
cyklus Matičce. ID (the cycle of poems To Mother)
symfonická báseň $\underline{Z}$ českých luhů. ID a hájů. ID (=the symphonic poem From Bohemia’s Meadows and Forests)
kniha Obsluhoval jsem. ID anglického krále (=the book I served the King of England)
předložková skupina "s výjimkou".ID (=the prepositional phrase "with the exception")
NB! A combination of a common noun and a proper name of a person (for example: premiér Zeman (=prime minister Zeman)) are not treated (in the position of the nominative) as a case of a nominative of identity. For more on this, see Section 6.11.4.1, "Combination of a common noun and a proper noun".

To represent nominal groups (noun phrases) of the type: common noun + proper noun see also Section 6.11.4, "Dependency relations in noun phrases (two nouns in the same form)".

Explicative genitive. Explicative genitive means an expression in the genitive which modifies a generic common noun by a more specific descriptive noun, involving the following transformation:

- trest smrti (=the death penalty) $\rightarrow$ smrt je (druhem) trest $(u)$ (=death is a form of punishment).

A helpful criterion for the identification of an explicative genitive:

- the explicative genitive can be replaced by a nominative of identity:
- titul univerzitniho profesora (=the title of university professor) $\rightarrow$ titul univerzitní profesor (=the title university professor).
- pojem času (=the concept of time) $\rightarrow$ pojem čas (=the concept time).

If the potential explicative genitive can be replaced by a nominative, it is an explicative genitive. However, not all explicative genitives can be replaced by the nominative; for example: trest smrti (=lit. penalty of death) (cannot be: trest smrt (=penalty death)).

The explicative genitive is represented as an identification structure - see Section 8.8.1.3, "Identification structure".

Examples:
otázka laickosti.ID (=the question of laity)
osoba V. Klause. ID (=the personality V. Klaus)
dosavadní dila s tématem synonymie. ID (=existing works on the topic of synonymy)
obdobi reformace. ID (=the reformation era)
uměni knihtisku.ID (=the art of book printing)
!!! It has been shown that the boundaries between the explicative genitive, the genitive represented by the functor RSTR and certain valency genitives are very unclear. Cf.:

- proces privatizace (=the privatisation process)
- $\rightarrow$ privatizace je druhem procesu (=privatisation is a kind of process).

According to this transformation the genitive should be evaluated by the functor ID.

- $\rightarrow$ privatizační proces (=the privatisation process).

According to this transformation the genitive should be evaluated by the functor RSTR.

- titul profesora vs. titul profesor vs. profesorský titul. (=the title of professor v. the title professor v. professorial title.)
- otázka existence. PAT Boha vs. otázka laickosti.ID (=the question of the existence of God v. the question of laity.)

In future, therefore, it will be necessary to develop more specific criteria for the respective types.

### 8.8.1.1. Rules for the annotation of identifying expressions with a declinable governing constituent

No special rules have been introduced for identifying expressions with a declinable governing constituent (group A) unless these expressions occupy the position of the nominative of identity or the identifying genitive.

The effective root node of an identifying expression (i.e. the node representing the governing constituent of the expression - the declinable noun) is assigned a functor according to its position in the sentence structure, according to the nature of the dependency. Cf.:

- Čtu Babičku.EFF (I am reading Grandma.)

The effective root node of an identifying expression, the node representing the noun Babička (=Grandma), will have the functor EFF. Cf. Fig. 8.133.

If the identifying expression is formed by an adjective, it is treated as nominalised, i.e. a node with the t-lemma substitute \#EmpNoun is not added for the governing noun (so this is not a case of ellipsis as described in Section 6.12.1.2, "Ellipsis of the governing noun"). Cf.:

- Vystoupíme na Vltavské.LOC (=We are getting off at Vltavská)

The effective root node of an identifying expression, the node representing the prepositional phrase na Vltavské (=at Vltavská), will have the functor LOC. Cf. Fig. 8.134.

The structure of identifying expressions is undergoing further analysis. The rule is, unless stated otherwise, that nodes dependent on effective root nodes of an identifying expression are annotated according to the usual rules and their functor is assigned according to the nature of the dependency. At the respective nodes representing an identifying expression, the valency is represented. For example:

Organizace.DENOM Spojených.RSTR národů.APP pro výchovu.BEN , vědu.BEN a.CONJ kulturu.BEN (=The United Nations Educational, Scientific and Cultural Organisation) Fig. 8.135

NB! Special rules apply to certain proper nouns; see Section 8.8.2.1, "Specific rules for certain types of proper nouns".

Additional examples:
Chodime do Národniho divadla.DIR3 (=We go to the National Theatre) Fig. 8.137
Mostecká.ACT uhelná prosperuje. (=The Most Colliery Company is thriving) Fig. 8.138
Petr.ACT je učitel. (=Peter is a teacher.)
Vytvořit určitý prostor, později nazvaný „,transformační polštář.EFF ". (=To create a certain space, later known as "the transformation cushion".)

Titulek tohoto přispěvku by mohl být „Loterie. ACT pro zesnulé". (=The caption for this contribution could be "A lottery for the deceased.")
„Husova cesta.ACT do Kostnice" je název akce, kterou pořádá Prahal. (="The journey of Jan Hus to Constance" is the title of an event organised by Prague 1.)

Sexuální výchova bude součástí předmětu, kterýse bude jmenovat „výchova. PAT ke zdravému životnímu stylu". (=Sex education will be part of the subject to be entitled "education for a healthy lifestyle".)

Řikali tomu ,, dialog.EFF ". (=They called that "a dialogue".)
„Vosa.ACT" však mírila mimo. (=However,"the wasp" flew by.)

Modification of an identifying expression. An identifying expression may be modified as a complete unit. The root of the modifier of an identifying expression is always the direct daughter node of the root node of the identifying expression. Cf.:

- Jeho.APP Máj je otrhaný. (=His "May" (book) is torn.)

The identifying expression Máj (=May) is modified by a modifier with the meaning of the functor APP. The node representing this modifier (or its root) will be the direct daughter node of the root of the identifying expression (of the node representing the noun Máj (=May)). Cf. Fig. 8.136.
!!! We are aware that the adopted annotation method does not distinguish modification of an identifying expression from other dependent modifications which are constituents of an identifying expression. In the future we anticipate the introduction of an attribute which will specify for every node whether or not it is a constituent of an identifying expression. So far, only the attribute is_name_of_person has been introduced (on this, see Section 8.8.2, "Proper nouns and titles") and information as to whether a node is or is not a constituent of an identifying expression (in the case of identifying expressions within quotation marks) is also given by the attribute quot/type (on this, see Section 8.19.1, "Text within quotation marks").

Nominative of identity or explicative genitive. In the position of the nominative of identity and the explicative genitive (see Section 8.8.1, "Basic rules for the annotation of identifying expressions") the identifying expression is represented as an identification structure (see Section 8.8.1.3, "Identification structure").

Figure 8.133. Identifying expression with a declinable governing constituent


Čtu Babičku. (=lit. (I) am_reading Grandma.)

Figure 8.134. Identifying expression with a declinable governing constituent

```
O
root
```



```
    vystoupit.enunc
    f_PRED
    v decl.disp0.ind
cpl.it0.res0.post
#PersPron Vltavský
t_ACT f_LOC.nr
n.pron.def.pers n.denot
gender:nr.pl.1.basic neut.sg
```

Vystoupíme na Vltavské. (=lit. (We) are_getting_off at Vltavská)
Figure 8.135. Identifying expression with a declinable governing constituent


Organizace Spojených národů pro výchovu, vědu a kulturu. (=lit. (The) Organisation (of) United Nations for education, science and culture)

Figure 8.136. Identifying expression with a declinable governing constituent


Jeho Máj je otrhaný. (=lit. His "May" is torn.)
Figure 8.137. Identifying expression with a declinable governing constituent


Chodime do Národniho divadla. (=lit. (We) go to (the) National Theatre)

Figure 8.138. Identifying expression with a declinable governing constituent


Mostecká uhelná prosperuje. (=lit. (The) Most Colliery (Company) is_thriving)

### 8.8.1.2. Rules for annotation of other identifying expressions

Other identifying expressions, i.e. identifying expressions without a declinable governing constituent (group B), usually do not occur separately in a sentence, but in combination with their generic common noun. In this position following the generic common noun they are instances of the position of the nominative of identity (see Section 8.8.1, "Basic rules for the annotation of identifying expressions").

Identifying expressions from group B are always represented as identification structures - see Section 8.8.1.3, "Identification structure".

### 8.8.1.3. Identification structure

The following are represented as identification structures:

- all identifying expressions with a non-declinable governing constituent and identifying expressions without an obvious governing constituent (group B),
- nominative of identity,
- genitive of identification.

Identification structure is demonstrated by the diagram Fig. 8.139.

Figure 8.139. Identification structure


The root of the identification structure. The root of the identification structure is the node representing the generic common noun. If the identifying expression (from group B) occurs at surface level without its generic noun, a new node is added to the tectogrammatical tree in the position of the root of the identification structure, with the t-lemma substitute \# Idph.

The root of the identification structure is assigned a functor according to the position in the sentence structure, according to the nature of the dependency.

Cf.:

- návrh.DENOM Třikrát a dost (=the Three times is enough proposal)

The root of the identification structure will be the node representing the noun návrh (=proposal). Cf. Fig. 8.140.

## - Čtu \{\# Idph.EFF\} Timur a jeho parta. (=I am reading Timur and his Friends.)

The root of the identification structure will be the newly established node with the $t$-lemma substitute \# Idph.

NB! If the root of the identification structure is a newly established node with the t-lemma substitute \#Idph, this is also a list structure. In the attribute nodetype the value list is entered at the root of the structure (on this, see Section 3.4, "List structure root nodes"). If the root of the identification structure is a node representing the expressed generic common noun, this node is not recorded as the root of the list structure (nodetype $\neq 1$ ist). There is therefore only a partial overlap of the terms identification structure and list structure.

The effective root node of the identifying expression. The effective root nodes of the identifying expression, which all have the functor ID are dependent on the root of the identification structure. The effective roots of the identifying expression are all nodes representing the expressed governing constituents of the identifying expression not dependent at surface level on any other constituent. This means that the ellipsis of the governing constituent is not represented within the framework of the identifying expression (see Section 6.12.1, "Ellipsis of the governing element").

The effective root node of the identifying expression is in most cases identical with the root of the identifying expression. The effective root nodes of the identifying expression are not identical with the root of the identifying expression only in cases where there are more (co-ordinated) governing constituents in the identifying structure. An identifying expression can have more than one root, in
cases where the identifying expression has more (un-co-ordinated) governing constituents (effective roots).

Cf.:

- cedule s nápisem ,,Romy neobsluhujeme. ID." (=The notice with the inscription "We do not serve Romanies".)

The effective root node of the identifying expression Romy neobsluhujeme is a node representing the verb neobsluhujeme (=we do not serve). In this case, the effective root node of the identifying expression is also the root of the identifying expression. Cf. Fig. 8.141.

- návrh Třikrát.ID a dost. ID (=the "Three times is enough" proposal)

The effective root of the identifying expression Třikrát a dost (=Three times is enough) will be two nodes: a node representing the word trikrát ( $=$ three times) and a node representing the word dost (=enough). The root of the identifying expression will be a node representing the conjunction $a$ (=and). Cf. Fig. 8.140.

- V sobotu. ID $\underline{v}$ poledne. ID je hezký film. (=On Saturday at noon there is a nice film.)

The effective roots of the identifying expression $V$ sobotu $v$ poledne ( $=$ On Saturday at noon) will be two nodes: a node representing the prepositional phrase $v$ sobotu (=on Saturday) and a node representing the prepositional phrase $v$ poledne ( $=$ at noon). The effective root nodes of the identifying expression are in this case also the roots of the identifying expression. Cf. Fig. 8.142.

Elements of the identification structure. All nodes representing individual words which are constituents of the identifying expression form the elements of the identifying expression. The structure of identifying expressions is undergoing further analysis. Unless stated otherwise, the rule is that elements dependent on the effective root nodes of an identifying expression are annotated according to the usual annotation rules and their functor is assigned according to the nature of the dependency. The valency of the respective elements of identifying expressions is represented.

Cf.:

- \{\# Idph.ACT\} Zde.LOC by měly kvést.ID růže.ACT mělo velký ohlas. (=Roses should Bloom Here had a great reception.)

The effective root node of the identifying expression has the functor ID. All other dependent elements of the identifying expression are assigned functors according to the nature of the dependency. The effective root node (representing a verb) is assigned a (filled) valency frame. Cf. Fig. 8.143.

NB! Special rules apply to certain proper nouns; see Section 8.8.2.1, "Specific rules for certain types of proper nouns".

Modification of an identifying expression. An identifying expression may be modified as a complete unit. The root of the modifier of an identifying expression is always the direct daughter node of the root of the identification structure. Cf:

- Jiráskovo.AUTH \{\# Idph\} Proti všem (=Jirásek's Against All)

The identifying expression Proti všem (=Against All) is modified by a modifier with the meaning of the functor AUTH. The node representing this modification (or its root) will be the direct daughter node of the root of the identification structure, which in this case is the newly established node with the t-lemma substitute \#Idph. Cf. Fig. 8.144.

NB! Modification of the identifying expression may take the form of a paratactic connection.
Additional examples:

Na stole leželo \{\# Idph.ACT\} Proti všem.ID (=On the table lay Against All.) Fig. 8.145
Sejdeme se v restauraci.LOC UMedvidků. ID (=We'll meet at the Little Bears restaurant.) Fig. 8.146
\{\# Idph.ACT \} Já. ID a Bůh. ID zaujalo mnoho posluchačů. (=God and I caught the interest of many listeners.)

Lépe než \{ nazvat.CPR\} \{\#Idph.EFF\}, Otvíráme. ID " měl pan ředitel svůj text nazvat ,,otevřená dlan̆.EFF" (=Instead of "We are opening", the manager should have called his text "With Open Arms".)
\{\# Idph.ACT\} ,,Co je. ID vládnuti'" se jmenuje pětačtyřicetistránková brožura, určená pro žáky ZŠa SŠ. (="What does ruling mean?" is the title of a forty five page brochure intended for primary and secondary school pupils.)
...dokud se nenaplni úsloví „Na každého jednou dojde. ID ". (=until the saying "Everybody will have their turn" comes true)

Hosty uvitá znělka „, volá. ID Londýn". (=Guests are welcomed by the callsign "London calling".)
Staří čeští intelektuálové tehdy dostali nálepku ,zrádné intelektuální reakce. ID ". (=Old Czech intellectuals were dubbed "treacherous intellectual reactionaries" in those days.)

Competition between identification structure and list structure for foreign-language expressions. In cases where two options compete for the representation of an expression - by identification structure and by list structure for foreign-language expressions (see Section 8.9, "Foreign-language expressions") - precedence is given to representation by list structure for foreign-language expressions. The node with the t-lemma substitute \# Idph is not then added to the tectogrammatical tree. Cf.:

- francouzské \{\# Idph.DENOM\} ,,ano.ID" (=The French ,,yes");
- francouzské \{\#Forn.DENOM\} ,,qui.FPHR" (=The French ,,qui").

Additional examples:
Arabská melodika $v\{\#$ Forn.LOC \} Come talk to me. (=The Arabic melody in Come talk to me.) Fig. 8.147
na \{\#Forn.LOC\} US Open (=to the US Open)

Figure 8.140. Identification structure

návrh Třikrát a dost (=lit. proposal Three and enough)

Figure 8.141. Identification structure

cedule s nápisem „Romy neobsluhujeme." (=lit. notice with inscription "Romanies we_don't_serve")

Figure 8.142. Identification structure

$V$ sobotu v poledne je hezký film. (=lit. On Saturday at noon is nice film.)

Figure 8.143. Identification structure


Zde by měly kvést růže mělo velký ohlas. (=lit. Here should - Bloom Roses had great reception.)
Figure 8.144. Identification structure


Jiráskovo Proti všem. (=lit. Jirásek's Against All.)

Figure 8.145. Identification structure


Na stole leželo Proti všem. (=lit. On (the) table lay Against All.)
Figure 8.146. Identification structure


Sejdeme se v restauraci $U$ Medvidkio. (=lit. (We) will_meet REFL at restaurant At Little_Bears)

## Figure 8.147. Foreign-language expression



Arabská melodika v Come talk to me. (=lit. Arabic melody in Come Talk to Me.)

### 8.8.2. Proper nouns and titles

Amongst proper nouns and titles we include:

- names of persons.

For example: Anička (=Annie), Božena Němcová (=Božena Němcová), Sněhurka (=Snow White), Novákovi (=The Nováks) .

- identification of nationalities, groups and residents.

For example: Čech (=Czech), Pražan (=resident of Prague), Přemyslovec (=member of Premyslid dynasty).

- names of animals.

For example: Vořech (=Mongrel) , Zrzečka (=Ginger (red squirrel in children's story)), Pú (=Pooh Bear).

- geographical names.

For example: Jupiter (=Jupiter), Evropa (=Europe), Balkánský poloostrov (=Balkan Peninsula), Máchovo jezero (=Lake Mácha), řeka Svatého Vavřince (=St. Lawrence River), Hradec Králové (=Hradec Králové (name of a town)), Sídliště Antala Staška (=Antal Stašek Housing Estate), Vodičkova ulice (=Vodičkova Street), ulice Na Přikopě (=Na Přikopě Street), Boubinský prales (=Boubin Forest) .

- official titles of institutions, organisations, companies and businesses.

For example: Česká republika (=The Czech Republic), Rada bezpečnosti Organizace spojených národů (=The Security Council of the United Nations Organisation), Poslanecká sněmovna (=The

Chamber of Deputies (Lower House of Czech Parliament)), klub Za starou Prahu (=The For Old Prague Club), lékárna U Jednorožce (=The Unicorn Pharmacy).

- titles of documents, creative works and works of art.

For example: Osudová (=Beethoven's Fifth Symphony), Naše řeč (=Our Language (periodical)), Kde domov můj? (=Where is my homeland? (Czech national anthem)).

- titles of products.

For example: automobil Škoda Favorit (=The Škoda Favorit car), Palmex (=Palmex (washing powder)).

- titles of notable events and chronological periods.

For example: Vánoce (=Christmas), Mistrovství světa v lednim hokeji 2004 (=The 2004 World Ice Hockey Championship).

- titles of awards and prizes.

For example: medaile Za zásluhy (=The Medal of Merit).

- a title identifying a category or type.

For example: Pozdravujte všechny výletniky typu „,ven z auta, šup na hrad a šup do auta ". (=Greet all visitors of the ,, Out of the car, quickly to the castle and quickly back in the car" type.)

- and other identifications and titles in the broad sense of identification (frequently also written with a lower-case initial letter, but then usually within quotation marks).

For example: Staří čéští intelektuálové tehdy dostali nálepku ,,zrádné intelektuální reakce ". (=Old Czech intellectuals were dubbed "treacherous intellectual reactionaries" in those days.); Do lázeňského města přijeli vyzváni motem turnaje „Kdo nebyl v Poděbradech, nemá rád tenis". (=They came to the spa town in response to the slogan "If you haven't been to Poděbrady you don't like tennis.); Vytvořit určitý prostor, později nazvaný „transformační polštář" (=To create a certain space, later known as "the transformation cushion".); Řikali tomu ,,dialog". (=They called this "a dialogue".); ...dokud se nenaplní úsloví „Na každého jednou dojde". (=until the saying "Everybody will have their turn" comes true)

NB! The boundary of the title (identifying expression) is not clear-cut. It has been found that a title can probably follow any concrete or abstract noun. Numbers functioning as "labels" (for example: strana 25 (=page 25)) are annotated according to the rules given in Section 8.10.1.3, "Numerals with the function of a "label"". A number of annotation rules have also been adopted under section Section 8.12, "Annotation of structured text". These rules have precedence over the rules given here.

For the annotation of proper nouns the rules given in Section 8.8.1, "Basic rules for the annotation of identifying expressions" and further specific rules given in this section apply.

Proper names of people (attribute is_name_of_person). At all nodes representing expressions which are constituents of proper names of people (nodes representing forename or surname) the value 1 is entered in the attribute is_name_of_person. See Table 8.2, "Values of the attribute is_name_of_person".

Table 8.2. Values of the attribute is_name_of_person

| 0 | the node represents an expression which is not a constituent of a proper name of a person |
| :--- | :--- |
| 1 | the node represents an expression which is a constituent of a proper name of a person |

If the attribute is not filled in, the value is taken to be 0 .
!!! In the future it is anticipated that an attribute will be introduced specifying for every node whether or not it is a constituent of an identifying expression. Meanwhile only the attribute is_name_of_person has been adopted and information as to whether a given node is or is not a constituent of an identifying expression is also provided for identifying expressions written between quotation marks by the attribute quot/type (on this, see Section 8.19.1, "Text within quotation marks").

The question of the start of a title. During annotation it may sometimes be difficult to define the start (and frequently also the end) of a title, especially as conventions vary in respect of upper and lower case initial letters in certain types of titles (according the rules of Czech orthography one writes: Sídliště Miru (=The Peace Estate), but náměstí Miru (=Peace Square)). When defining the start of a title the following simple rules are therefore adopted:

- if a generic common noun (written with upper or lower case initial letters) is followed by a noun in the genitive or by a possessive adjective, this generic noun is treated as a constituent of the title.

Complex titles (conforming to the rules of Czech orthography) are therefore treated as a single title: Sidliště Antala Staška (=The Antal Stašek Housing Estate; Sídliště Míru (=The Peace Estate); náměstí Míru (=Peace Square); řeka Svatého Vavřince (=The St. Lawrence River); vodopády Viktoriiny (=Victoria Falls); ulice Boženy Němcové (=Božena Němcová Street); most Palackého (=Palacký Bridge); Země Františka Josefa (=Franz Josef Land); ostrov Svatého Tomáše (=São Tomé Island); Divadlo J.K. Tyla (=J.K. Tyl Theatre); Galerie bratří Čapků (=Čapek Brothers Gallery) ; Dím módy (=The House of Fashion).

These titles all belong to group A, identifying expressions with a declinable governing constituent (for the rules of annotation, see Section 8.8.1.1, "Rules for the annotation of identifying expressions with a declinable governing constituent").

Examples:
Jdi přes most.DIR1 Palackého.RSTR (=Cross Palacký Bridge) Fig. 8.148
Na náměstí.LOC Míru. RSTR je rušno. (=Peace Square is busy.) Fig. 8.149
Ellipsis of the governing constituent of the title (a declinable noun). If a generic common noun is not expressed at surface level (this is an exceptional case), the ellipsis of the governing noun is represented in the tectogrammatical tree according to the rules in Section 6.12.1.2, "Ellipsis of the governing noun". The newly established node is then treated as a constituent of the title. For example:

Vystoupime na \{\#EmpNoun.LOC\} Jiřiho z Poděbrad. (=We are getting off at Jiřiho z Poděbrad (George of Poděbrady) metro station).

- if a generic common noun (written with a lower case initial letter) is followed by an attributive adjective in grammatical agreement with it, this generic noun is also treated as a constituent of the title.

Complex titles (conforming to the rules of Czech orthography) are therefore treated as a single title: poloostrov Pyrenejsky (=The peninsula of the Pyrenees) (Pyrenejsky poloostrov (=The Pyrenees Peninsula)); moře Středozemni (=The Mediterranean Sea) (Středozemní moře (=The Mediterranean Sea)); kaple Betlémská (=The Bethlehem Chapel) (Betlémská kaple (=The Bethlehem Chapel)); ulice Spálená (=Spálená Street) (Spálená ulice (=Spálená Street)).

These titles all belong to group A, i.e. identifying expressions with a declinable governing constituent (for annotation rules, see Section 8.8.1.1, "Rules for the annotation of identifying expressions with a declinable governing constituent").

Examples:

Šli jsme ulicí.DIR2 Spálenou.RSTR (=We were walking in Spálená Street.) Fig. 8.150
Šli jsme Spálenou.RSTR ulicí.DIR2 (=We were walking in Spálená Street.)
Itálie leží na poloostrově.LOC Pyrenejském.RSTR (=Italy lies on the peninsula of the Pyrenees.)
Itálie leží na Pyrenejském.RSTR poloostrově.LOC (=Italy lies on the Pyrenees Peninsula.)
NB! If a generic common noun is followed by an adjective in the non-declinable nominative of identity, the common generic noun is not treated as a constituent of the title.

The generic noun is not a constituent of the title (conforming to the rules of Czech orthography): stanice Vltavská (=Vltavská Station (there is no Vltavská stanice))), symfonie Osudová. (=The Fifth Symphony)

Examples:
Šli jsme ulicí.DIR2 Spálená.ID (=We were walking in Spálená Street.) Fig. 8.151
Vystoupíme na stanici.LOC Vltavská.ID (=We are getting off at Vltavská station.)
Tramvaje nejezdív ulici.LOC Spálená.ID a v \{ ulice.LOC\} 17.listopadu.RSTR (=The trams are not running in 17th November Street and in Spálená Street.)

NB! If a (declinable) adjectival title is a separate constituent of the sentence it is treated as nominalised, i.e. a node with the t -lemma substitute \#EmpNoun for the governing noun is not added (thus this is not a case of ellipsis as described in Section 6.12.1.2, "Ellipsis of the governing noun").

Examples:
Šli jsme Spálenou.DIR2 (=We were walking in Spálená (Street).) Fig. 8.152
Vystoupime na Vltavské.LOC (=We are getting off at Vltavská)
Poslouchá Osudovou.PAT pořád dokola. (=He/She listens to the Fifth over and over again.)

- if a generic common noun written with a lower case initial letter is followed by a nominative of identity (nominative, prepositional phrase, or other alternative form for a nominative of identity), the generic noun is not a constituent of the title.

The generic noun is not a constituent of the title (conforming to the rules of Czech orthography): sidliště Modřany (=The Modřany housing estate); stanice Náméstí míru (=Peace Square Station); restaurace U Medvídků (The Little Bears Restaurant); ulice Mezi Zahrádkami (=Mezi Zahrádkami Street); kino Blanik (=Blanik Cinema); hrad Karlštejn (=Karlstein Castle); hotel U Modré hvězdy (=The Blue Star Hotel).

These titles belong to group B, identifying expressions without a declinable governing constituent (for annotation rules, see Section 8.8.1.3, "Identification structure").

Examples:
Bydlíme v ulici.LOC Mezi Zahrádkami.ID (=We live in Mezi Zahrádkami Street) Fig. 8.153
Bydlíme \{\#Idph.LOC\} Mezi Zahrádkami.ID 21. (=We live at 21 Mezi Zahrádkami) Fig. 8.154
Sejdeme se \{\#Idph.LOC\} U Medvidkỉ.ID (=We'll meet at The Little Bears)
\{\# Idph.LOC\} U Modré hvězdy.ID už mají plno. (=The Blue Star is already full up.)

- if a generic common noun written with an upper case initial letter is followed by a nominative of identity (nominative, prepositional phrase or other alternative form of the nominative of identity), the generic noun is a constituent of the title.

The generic noun is a constituent of the title:
Divadlo Loutka (=The Puppet Theatre)
Divadlo na Vinohradech (=Vinohrady Theatre)
Galerie Centrum (=Centrum Gallery)
Hudební divadlo v Karlině (=Music Theatre in Karlin)
These titles belong to group A, identifying expressions with a declinable governing constituent (for annotation rules, see Section 8.8.1.1, "Rules for the annotation of identifying expressions with a declinable governing constituent").
!!! In the present state of the annotation rules, the definition of the start and end of a title is significant only for purposes of allocating identifying expressions to group A or B. In the future this question will be important for the introduction of an attribute defining at every node whether the expression it represents is or is not a constituent of the title.

## Figure 8.148. Proper noun



Jdi přes most Palackého. (=lit. Cross over bridge (of) Palacký.)

Figure 8.149. Proper noun


Na náměstí Míru je rušno. (=lit. At square (of) Peace is busy.)
Figure 8.150. Proper noun


Šli jsme ulicí Spálenou. (=lit. (We) were_walking AUX (through) street Spálená)

## Figure 8.151. Proper noun

0
$\vdots$
root

Spálený
f_ID
adj.denot pos.nego

Šli jsme ulicí Spálená. (=lit. (We) were_walking AUX (through) street Spálená)
Figure 8.152. Proper noun


Šli jsme Spálenou. (=lit. (We) were_walking AUX (through) Spálená)

Figure 8.153. Proper noun


Bydlíme v ulici Mezi Zahrádkami. (=lit. (We) live in street Mezi Zahrádkami)

Figure 8.154. Proper noun


Bydlíme Mezi Zahrádkami 21. (=lit. (We) live Mezi Zahrádkami 21)

### 8.8.2.1. Specific rules for certain types of proper nouns

In this section, specific rules are introduced for certain types of proper noun.
Official geographical names. The structure of official geographical names (titles of towns, villages, streets, squares, districts, mountains, rivers, states, islands, peninsulas, lowlands and seas) is not analysed. All dependent nodes have the functor RSTR.

Example:
Ústí nad Labem.RSTR (=Ústí nad Labem (Ústí on the Elbe)) Fig. 8.155

Figure 8.155. Official geographical name
root
$\vdots$
$\vdots$
Usti.enunc
n.denom
neut.sg
Labe
f_RSTR
n.denot
neut.sg

## Ústí nad Labem (=Ústí nad Labem)

NB! For titles of public transport stops and stations, titles of spaces, buildings, castles, and institutions, and for regional and local geographical titles this rule has not been adopted. In most cases, however (according to the usual rules of annotation, adopted here), their dependent nodes will also have the functor RSTR.

Complex proper names of persons. In the case of complex proper nouns, the effective root of the title is the node representing the last part of the name. All other parts of the name are dependent on this node (as sister nodes) and they have the functor RSTR. A hyphen or a space within a complex proper noun is treated as a surface convention and such orthographical features and variations are not reflected in the tectogrammatical trees.

Examples:
Klára.RSTR Nováková.RSTR Malá (=Klára Nováková Malá) Fig. 8.156
likewise: Klára Nováková-Malá (=Klára Nováková-Malá)
Jan.RSTR Maria.RSTR Plojhar (=Jan Maria Plojhar) Fig. 8.157
likewise: Jan-Maria Plojhar (=Jan-Maria Plojhar) and Jan Maria-Plojhar (=Jan Maria-Plojhar)
Anna.RSTR Marie (=Anna Marie) Fig. 8.158
likewise: Anna-Marie (=Anna-Marie)
jméno Anna.RSTR Marie.ID (=the name Anna Marie)
rtěnka Margaret.RSTR Astor.ID (=Margaret Astor lipstick)
On the annotation of nominal groups (noun phrases) in which a common noun and a proper name of a person are combined, see also Section 6.11.4.1, "Combination of a common noun and a proper noun".

NB! compounds with a dash (not a hyphen). This is represented as a paratactic structure. For example: dvojice Máčala.ID - Lešický.ID (=The Máčala-Lešický couple.) Fig. 8.159

Figure 8.156. Complex proper name of a person


Klára Nováková Malá (=Klára Nováková Malá)
Figure 8.157. Complex proper name of a person


Jan Maria Plojhar (=Jan Maria Plojhar)

Figure 8.158. Complex proper name of a person

```
O
Marie.enunc
f_DENOM
n.denot
fem.sg
person_name
    b
    Anna
    f_RSTR
    n.denot
    fem.sg
    person_name
```

Anna Marie (=Anna Marie)
Figure 8.159. A dash as a constituent of a title

dvojice Máčala - Lešický (=lit. couple Máčala-Lešický.)
Foreign-language proper names of persons. Complex foreign surnames or complex foreign forenames in a European language are represented by a single node. In the $t$-lemma of these nodes the respective m -lemmas of all constituents of the complex foreign name or surname are joined by underscore characters in the sequence in which they occur at surface level (see Section 4.3.1, "Multi-word t-lemma").

For example:
Malǐr.RSTR Leonardo.RSTR da Vinci.ACT je slavný. [t-lemma=da_Vinci] (=The painter Leonardo da Vinci is famous.)

Pan.RSTR da Cruz.ACT už je tady. [ $\mathrm{t}-\mathrm{lemma=da} \mathrm{\left.\_Cruz\right](=Mr.daCruz} \mathrm{is} \mathrm{here} \mathrm{now)}$.
Foreign (European) proper names represented by a single node are treated according to the same rules as Czech names.

NB! Foreign proper names in a non-European language are represented according to the rules for foreign-language phrases (by a newly created node with the t-lemma \#Forn; see Section 8.9, "Foreignlanguage expressions"); for example:
činský cisař \{\#Forn\} Tung.FPHR chun.FPHR Chou.FPHR (=The Chinese Emperor Tung chun Chou.)
Two declinable nouns as constituents of a title. Certain titles of towns, their districts, railway stations, bus stops etc. are formed by two declinable nouns, frequently hyphenated. A title potentially has two governing constituents. These titles are analysed structurally. The node representing the governing constituent of the specifying, more clearly defining part (usually the second part of the title, the second declinable noun) has the functor RSTR. If it is not clear which is the governing part and which is the dependent part, the node representing the governing constituent of the first part (before the hyphen) is treated as the effective root node of the title. In such cases the hyphen is not represented by a node.

Examples:
Frýdek - Místek.RSTR (=Frýdek-Místek) Fig. 8.160
Sejdeme se v Praze.LOC - Nebušicich.RSTR (=We'll meet at Prague-Nebušice.) Fig. 8.161
stanice Praha.ID - Smíchov.RSTR (=Prague-Smíchov Station) Fig. 8.162
Praha - Hlavní nádraží.RSTR (=Prague Main Station)
See also annotation of nominal groups - Section 6.11.4, "Dependency relations in noun phrases (two nouns in the same form)".

Figure 8.160. Two declinable nouns as constituents of a title
root
$\vdots$
frydek.enunc
f_DENOM
n.denot
inan.sg
b
Mistek
f_RSTR
n.denot
inan.sg

Frýdek - Mistek (=Frýdek-Mistek)

Figure 8.161. Two declinable nouns as constituents of a title


Sejdeme se v Praze - Nebušicích. (=lit. (We) will_meet REFL at Prague-Nebušice.)
Figure 8.162. Two declinable nouns as constituents of a title

stanice Praha - Smichov (=lit. station Prague-Smíchov)
A non-declinable noun in the nominative as a constituent of the title. Where a non-declinable noun in the nominative which is not the effective root of the title is a constituent of a title, the node representing this nominative has the functor RSTR.

Such non-declinable nouns occur in the names of towns, their districts, offices, references to locations in the titles of organisations, detailed specifications of trade marks and, more recently, especially in the titles of sports competitions which include the non-declinable name of their sponsor.

Examples:
Pracuje v Chemopetrolu.LOC Litvinov.RSTR (=He/She works at Chemopetrol Litvinov) Fig. 8.163
Fotbalová Gambrinus.RSTR liga (=The Gambrinus Football League) Fig. 8.164
Hokejová Český Telecom.RSTR extraliga (=The Czech Telecom Special Hockey League)
Budou bydlet na Praze.LOC - východ.RSTR (=They are going to live in Prague-East.)
okres Praha.ID - východ.RSTR (=The Prague-East District)
u katastrálniho úřadu Praha. ID město.RSTR (=at the City of Prague land registry)
s novou Škodou.ACMP Favorit.RSTR (=With the new Škoda Favorit.)
automobil Opel.ID Astra.RSTR (=The Opel Astra car)
prací prášek Palmex. ID modrá sila.RSTR (=Palmex Blue Force washing powder)
Válcovny plechu Frýdek.RSTR -Místek.RSTR (=Frýdek-Mistek rolling mills)
fotbalový klub Bayern.ID Mnichov.RSTR (=Bayern Munich Football Club)
Figure 8.163. A non-declinable noun in the nominative as a constituent of a title


Pracuje v Chemopetrolu Litvinov. (=lit.(He/She) works at Chemopetrol Litvinov.)

Figure 8.164. A non-declinable noun in the nominative as a constituent of a title


## Fotbalová Gambrinus liga. (=lit. Football Gambrinus League.)

Attributive adjectives and genitives signifying "in honour of, to the memory of". Nodes representing attributive adjectives formed from a proper name of a person, and which are constituents of the title, have the functor RSTR. Similarly, a node representing a proper noun in the genitive (an alternative to the attributive adjective) or certain common nouns in the genitive carrying the meaning "in honour, to the memory" and which are constituents of a title, have the functor RSTR.

Examples:
Karlova.RSTR univerzita (=Charles University)
Smetanova.RSTR Litomyšl (=Smetana's Litomyšl (international festival)
Parléřiov.AUTH Karlův.RSTR most (=Parléř's Charles Bridge)
stanice Náměstí Míru.RSTR (=Peace Square Station)
socha Svobody.RSTR (=The Statue of Liberty)
Divadlo Járy Cimrmana.RSTR (=The Jára Cimrman Theatre)
most $\underline{\text { Barikádnikư.RSTR (=The Barricade Bridge) }}$
Sidliště Antala Staška.RSTR (=The Antal Stašek Housing Estate)
NB! If the genitive of a noun which is a constituent of a title does not carry the meaning "in honour, to the memory", it may have a different functor; for example:

Organizace spojených národů.APP (=The United Nations Organisation)
Pohár mistrů.APP evropských zemí.APP (=European Champions' Cup)
NB! Attributive adjectives carrying the meaning "in honour, to the memory" are to be distinguished from attributive adjectives carrying the meaning of the functor APP (owner of a named object), and from attributive adjectives carrying the meaning of the functor AUTH (creator of a named object), which are not constituents of a title. See also Section 7.10.2, "AUTH".

A common generic noun in apposition. In cases where a title from group $B$ is not dependent on a common generic noun but is in apposition to it, the title is represented as an identifying structure whose
root is a node with the t -lemma substitute \# Idph. The terminal constituent of the apposition structure is therefore a node representing the expressed common generic noun and a newly established node with the t-lemma substitute \#Idph. Cf.:

- \{\#Idph.DENOM [is_member=1]\} Proti všem.ID, román.DENOM [is_member=1] Jiráska. (=Against All, the novel by Jirásek)

The apposition between the newly established node with the t-lemma substitute \#Idph and the node representing the common generic noun román (=novel) will be represented in the tectogrammatical tree. Cf. Fig. 8.165.

If a title from group A and a common generic noun are in apposition, the terminal constituent of the appositional structure is the effective root node of the title and the node representing the expressed common generic noun.

Příklad:
Skláři.DENOM [is_member=1] Vysočiny - stálá expozice.DENOM [is_member=1] (=Vysočina Glassmakers - permanent exhibition) Fig. 8.166

Figure 8.165. A common generic noun in apposition


Proti všem, román Jiráska. (=lit. Against All, novel (of) Jirásek.)

Figure 8.166. A common generic noun in apposition


Skláři Vysočiny - stálá expozice. (=lit. Glassmakers (of) Vysočina - permanent exhibition)
Foreign-language titles in the position of the nominative of identity. Non-declinable foreign-language titles are represented according to the rules for foreign-language phrases (see Section 8.9, "Foreignlanguage expressions"). A complex foreign-language title is represented as a list structure for a foreignlanguage expression also in the position of the nominative of identity. The root of this structure is the effective root of the identification structure and it has the functor ID.

Example:
časopis $\{\#$ Forn.ID $\}$ Financial Times (=The Financial Times newspaper) Fig. 8.167
NB! However, if a simple non-declinable foreign-language title is in the position of a nominative of identity, it is represented only as an identifying structure and the node with the t-lemma \#Forn is not added to the tectogrammatical tree.

Example:
město Uyuni.ID (=The city of Uyuni) Fig. 8.168
časopis Times. ID (=The Times newspaper)

Figure 8.167. A complex foreign-language title in the position of a nominative of identity

časopis Financial Times (=lit. newspaper Financial Times)
Figure 8.168. A simple foreign-language title in the position of a nominative of identity

město Uyuni (=lit. (The) city (of) Uyuni)

### 8.8.3. Expressions used metalinguistically

Meta-usage, expressions used metalinguistically, means expressions in which the words are not used in the usual way, the words themselves being under discussion, in respect of their meaning or their phonetic or graphic form.

Meta-usage of a word (or phrase or even a whole sentence) is generally introduced by a noun signalling that the common meaning of the word or words is not involved: nápis (=notice), slovo (=word), text (=text), otázka (=question), označení (=identification), pojem (=concept), věta (=sentence), výraz (=expression), výrok (=statement), význam (=meaning) etc. (some of these nouns can also introduce direct speech; see Section 8.3.1.2, "Direct speech as modification of a noun"). Meta-usage is also common in the case of the verbs: znamenat (=to mean), značit (=to designate), označovat (=to mark), psát (=to write), vyslovovat (=to pronounce) etc.

At nodes representing the respective constituents of metalinguistically used expressions, indicated graphically by quotation marks, the value meta is entered in the attribute quot/type. On this, see Section 8.19.1, "Text within quotation marks".

Meta-usage is represented as an identification structure (see Section 8.8.1.3, "Identification structure").
On the boundary between expressions used metalinguistically and direct speech, see Section 8.3.3, "Borderline cases between direct speech and meta-usage".

Examples:
Hráčky se omezí na \{\# Idph.PAT\} ,, ahoj.ID ". (=The players restrict themselves to a "hello".) Fig. 8.169

Slovo šebah.ID znamená původně \{\# Idph.PAT\} sedm.ID (=The word "shebah" originally means "seven".) Fig. 8.170
$V$ přidavném jménu ,"český. ID se vyskytují dvé pismena mající dominantní význam, a to \{\# Idph.ACT\} ,, $\underline{c}$. .ID " $a\{\#$ Idph.ACT\} ,, s.ID ". (=In the adjective "česky" (= "Czech") two letters occur which have a dominant meaning, i.e. " $c$ " and " $s$ ".) Fig. 8.171
\{\# Idph.ACT\} „Hvězdné nebe. ID nade mnou a mravní zákon. ID ve mně" stojí rusky a německy na desce. (= "A starry sky above me and a moral law within me", it says in Russian and German on the record.) Fig. 8.172

Germanismus klika.ID se uživá ve významu štěstí.ID a znamená také \{\#Idph.PAT\} držadlo.ID $k$ otvirání dveři. (=The germanism "klika" is used to mean good luck and it also means a door handle.)

Billboard s nápisem ,,Vpřed.ID " (=A hoarding with the inscription "Forwards".)
cedule s nápisem „Romy neobsluhujeme. ID " (=A notice with the inscription "We do not serve Romanies".)

Vyznání „, miluji. ID tě" i slovo odchod. ID lidé zprofanovali. (=People have corrupted the confession "I love you" and the word "departure".)

Za výchozí význam považuje \{\# Idph.PAT\} ," hák.ID, hákovitý předmět.ID ".(=He/She considers the original meaning to be "a hook", "a hook-like object".)
$s$ významem tleskat.ID (=meaning "to clap".)
Výrobky obsahující freony budou podle zákona zřetelně opatřeny textem ,,Výrobek obsahuje. ID látky ničicí ozónovou vrstvu Zemé." (=Products containing CS gases will by law be clearly marked "This product contains matter damaging to the Earth's ozone layer".)

Figure 8.169. Meta-usage

```
O
root
    i
    omezit_se.enunc
    f_PRED
    v decl.disp0.ind
    cpl.it0.res0.post
hráčka #ldph
t ACT t PAT
n.denot list
fem.pl
list
ahoj
f_ID
n.denot
gender:nr. number: nr
quot/type:meta
```

Hráčky se omezí na ,,ahoj". (=lit. Players themselves restrict to "hello".)
Figure 8.170. Meta-usage


[^0]Figure 8.171. Meta-usage


V přidavném jménu ,,český" se vyskytují dvě pismena mající dominantní význam, a to ,,č" a ,,s". (=lit. In adjective český REFL occur two letters having (a) dominant meaning, i.e. "č" and " $s$ ".)

Figure 8.172. Meta-usage

„Hvězdné nebe nade mnou a mravní zákon ve mně" stojí rusky a německy na desce. (= lit. "(A) starry sky above me and (a) moral law within me", it_says in_Russian and German on (the) record.)

### 8.9. Foreign-language expressions

Foreign-language expressions are segments in a language other than Czech. A segment is a foreignlanguage expression if it contains one or more foreign-language words that are not in forms corresponding to the Czech morphology.

List structure for foreign-language expressions. Foreign-language expressions are analyzed as a list structure (see also Section 3.4, "List structure root nodes"). The root node of a list structure for foreign-language expressions is a newly established node with the t-lemma substitute \#Forn (nodetype=list). The root node of the list structure is assigned a functor according to the role the foreignlanguage expression has in the sentence.

All parts of a foreign language expression (including the punctuation and other symbols) are represented by separate nodes in the tree and are immediate daughters of the root. Thus, they are represented as sisters, in the same order as on the surface. These nodes (items in the list) are assigned the FPHR functor (nodetype=fphr; see also Section 3.5, "Nodes representing foreign-language expressions"). The t -lemmas are the surface forms of the foreign-language words.

## Examples:

Nenahraditelný je pro sledování \{\#Forn.PAT\} cash.FPHR flow.FPHR (=It is indispensable for the cash flow monitoring) Fig. 8.173
firma \{\#Forn.ID\} Eagle.FPHR Group.FPHR V.FPHR : [\#Period.FPHR] A.FPHR : [\#Period.FPHR] (=Eagle Group V.A. company) Fig. 8.174
ubytováni typu \{\#Forn.ID\} bed.FPHR and.FPHR breakfast. FPHR (=bed and breakfast type of accomodation)

Modification of the list. A foreign-language expression can be modified (as a whole) by a Czech expression. Such a modification (or its root node) is an immediate daughter of the root node of the list structure. Cf.:

- Přispival do britských Financial Times. (=He was contributing to the British Financial Times)

The foreign-language expression Financial Times is modified by the adjective britský. The node for this adjective is an immediate daughter of the root node of the list structure (the node with the \#Forn t-lemma). Cf. Fig. 8.175.

List structure for foreign-language expressions vs. identification structure. Also foreign-language names (except for one-word names in the nominative of identity) are analyzed as foreign-language expressions. If there are two possible analyses of an expression: as a list structure, or as an identification structure (see Section 8.8.1.3, "Identification structure"), the analysis making use of the list structure (for foreign-language expressions; see also Section 8.8.2.1, "Specific rules for certain types of proper nouns") is to be preferred.

Examples of foreign-language names analyzed as list structures:
$Z$ \{\#Forn.DIR1\} Uyuni.FPFR je to 22 km . (=It is 22 km from Uyuni) Fig. 8.176
$v$ deniku \{\#Forn.ID\} Financial.FPFR Times.FPFR (=in the Financial Times daily newspaper)

## The following cases are not analyzed as a list structure:

- commonly used loan words, even if indeclinable, and loan words with Czech morphology. These cases follow the standard annotation rules.

For example:
Vyprávěl o včerejši extra.RSTR show.PAT (=He was talking about the yesterday's extra show)
Prispival do britských.RSTR Timesů.DIR3 (=He was contributing to the British Times newspaper)

- foreign-language proper names: European names. Multi-word foreign-language first and last names are represented by a single node. For the annotation rules for European proper names see Section 8.8.2, "Proper nouns and titles".

For example:
van Gogh $[\mathrm{t}$-lemma $=$ van_Gogh]
NB! Proper names in other than European languages are represented as a list structure (for foreignlanguage expressions); e.g.:
činský císař $\{\#$ Forn\} Tung.FPHR chun.FPHR Chou.FPHR (=the China's emperor Tung chun Chou) Fig. 8.177

- one-word foreign-language names in the nominative of identity. Nodes representing foreignlanguage names in the nominative of identity are assigned the ID functor and no new node with
the \#Forn t-lemma is inserted in the tree (for more, see Section 8.8.2.1, "Specific rules for certain types of proper nouns").

For example:
časopis Times.ID (=the Times periodical)

In unclear cases, the analysis making use of the list structure is to be preferred.
Figure 8.173. Foreign-language expressions


Nenahraditelný je pro sledování cash flow. (=lit. Irreplaceable is for monitoring cash flow)

Figure 8.174. Foreign-language expressions

firma Eagle Group V. A.
Figure 8.175. Foreign-language expressions


Přispival do britských Financial Times. (=lit. (He) was_contributing to British Financial Times)

Figure 8.176. Foreign-language expressions


Z Uyuni je to 22 km . (=lit. From Uyuni is it 22 km )
Figure 8.177. Foreign-language expressions

činský císař Tung chun Chou (=lit. Chinese emperor Tung chun Chou)

### 8.10. Numbers and numerals

Annotation rules for numbers and numerals need to be dealt with as a whole. So far, there are only some individual rules; these constitute the content of the present section. The proper representation of numbers and numerals is also discussed in the section on mathematical operations and intervals (see Section 8.11, "Mathematical operations and intervals").

The annotation of numerals written in words and those written in digits follow basically the same rules; exceptions are noted in appropriate places in the respective subsections (especially in Section 8.10.2.3, "Complex numerical expressions" and Section 8.10.2.4, "Decimals and fractions").

### 8.10.1. The function of numerals

Numerals of the following types are distinguished:

- numerals with the role of an attribute (see Section 8.10.1.1, "Numerals with the role of an attribute (RSTR)"),
- numerals with the function (meaning) of a "container " (see Section 8.10.1.2, "Numerals with the meaning of a "container""),
- numerals used as "labels" (see Section 8.10.1.3, "Numerals with the function of a "label""),
- numerals with adverbial meanings (see Section 8.10.1.4, "Numerals with adverbial meanings").


### 8.10.1.1. Numerals with the role of an attribute (RSTR)

When combined with a counted object, most numerals have the function of a restrictive attribute. The node for the counted noun is the governing node and the dependent node is the node representing the numeral. The node representing the numeral gets the RSTR functor.

Examples:
Mám pět.RSTR domů a tři. RSTR auta. (=I've got five houses and three cars) Fig. 8.178
naši tří. RSTR nejlepši hráči (=lit. our three best players)
Kolik.RSTR lidí přišlo? (=How many people came?)
náš druhý.RSTR nejlepši hráč (=our second best player)
Hodně.RSTR lidí se nechalo nalákat. (=Many people let themselves to be attracted)
The following classes of numerals are analyzed as dependent nodes with the RSTR functor when combined with a counted object:
a. definite cardinal numerals: "one" through "ninety-nine".

For example: jeden (=one), dva (=two), devadesát devět (=ninety-nine).
b. indefinite cardinal numerals with the exception of those that have the meaning of a "container"; see Section 8.10.1.2, "Numerals with the meaning of a "container"".

For example: několik (=several), tolik (=so many/much), kolik (=how many/much).
c. all adjectival numerals.

For example: stý (=hundredth), několikátý (=several.ordinal), dvojí (=doubleltwofold), dvanáctinásobný (=twelve_times.adj), paterý (=five_kinds_of.adj), čtvero (=four_kinds_of.adj).

## d. some other numerical expressions:

hodně (=a lot), vice (=more), méně (=less), mnoho (=many/much), málo (=few/little), stejně (=as_much_as), plno (=plenty), dost (=enough).

When combined with a counted object, all the numerals under a) through d) are analyzed as adjectival (sempos=adj. quant. def or adj. quant. indef; see Section 5.6.2.4, "Definite quantificational semantic adjectives" and Section 5.6.2.5, "Indefinite quantificational semantic adjectives").

Annotation of numerals standing alone in a sentence (without a counted object). If a numeral from groups a) through d) stands alone in the sentence (without a counted object), it is analyzed according to which of the subgroups it belongs to:

- cardinal numerals, numerals from a) and b), are taken to be syntactic nouns. No new node (for a counted object) is inserted into the structure. The node representing the numeral can have different functors - also one of the functors for arguments.
!!! The sempos attribute of the node representing a definite cardinal numeral (group a) is assigned the value $n$. quant. def. As for the nodes representing indefinite cardinal numerals, no division into adj.quant.indef and n.quant.indef was made; all indefinite cardinal numerals (group b) have the attribute sempos specified as adj. quant. indef (i.e. even in cases without a counted object). See also Section 5.6.2.5, "Indefinite quantificational semantic adjectives".

Examples:
Zvolili tř̌i.PAT z pěti mistopředsedi̛. (=They elected three from five vice-chairs) Fig. 8.179
Mají několik druhů ovocných čajů. Tyhle tř̌i.ACT jsou nejlepší. (=These three are the best)
Vezmi dva. PAT bilé. (=Take two of the white ones)
Kolik.PAT mi dáš? (=How much are you going to give me?)
Mám nëkolik.PAT červených. (=I've got a couple of the red ones)
Počitá, kolik.ACT z vyřčených myšlenek odvane čas. (=He is counting how many of the uttered thoughts will be blown away by the passing time)

NB! In case there are several counted objects in coordination (or apposition) and in some of the conjoined expressions the counted object is omitted, a new node is inserted in the position of this non-expressed counted object, which is usually a copy of the node representing the expressed counted object.

These cases are not understood as cases of numerals standing alone (i.e. numerals with the nominal function) but as cases of ellipsis.

Examples:
Má 10 tuzemských jogurtů a $\underline{5} . \operatorname{RSTR}$ \{jogurt.PAT\} cizich. (=He's got ten yoghurts produced here and five from abroad) Fig. 8.181

Vystudoval 8 třid, čtyř̌i.RSTR \{třida.PAT\} rumunské, čtyřri.RSTR \{ třída.PAT\} české. (=He finished eight classes, four Romanian, four Czech) Fig. 8.182

- adjectival numerals and numerals from group c) and d) are analyzed as syntactic (and semantic) adjectives (sempos=adj. quant. def or adj. quant.indef; see Section 5.6.2.4, "Definite quantificational semantic adjectives" and Section 5.6.2.5, "Indefinite quantificational semantic adjectives") also in cases they stand alone (without a counted object) in a sentence.

A new node for the omitted governing noun is added to the tectogrammatical tree in such cases, following the rules in Section 6.12.1.2, "Ellipsis of the governing noun".

See also Section 8.10.2.2, "Numeral expressions "hodně", "více", "dost", "moc", "málo", "méně", "stejně", "plno"".

Examples:
Třetí.RSTR \{\#EmpNoun.PAT\} už jsme nestihli. (=We didn't make it for the third one) Fig. 8.180
Třetí.RSTR \{\#EmpNoun.ACT\} už tu není. (=The third one is not here anymore)
Má hodně.RSTR \{\#EmpNoun.PAT\} (=She's got a lot)
No node for the governing noun (counted object) is inserted, if the numeral is:

- in the position of the Patient or Effect and it agrees with another valency modification (the Patient or Effect position corresponds to a predicative complement here):

Examples:
Ziostal třetí.PAT (=He remained third)
Pokládali ho za druhého.EFF v pořadí. (=They considered him the second)

- in the position of the nominal (non-verbal) part of a verbonominal predicate (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)"):

Example:
To je druhé.PAT (=This is the second)

- in the position of a predicative complement (COMPL; see Section 6.10, "Predicative complement (dual dependency)").

Example:
Pavel skončil jako druhý.COMPL (=Pavel took second place, lit. finished as second)

Another example:
Máme dvě.RSTR možnosti. Jedna.ACT spočivá v pasivnim vyčkávání. Druhá.RSTR \{ možnost.ACT\} předpokládá aktivní prístup. (=We've got two possibilities. One is.. The second presupposes...)

Figure 8.178. Numerals with the role of an attribute (RSTR)


Mám pět domů a tři auta. (=lit. (I) have five houses and three cars)

Figure 8.179. Cardinal numerals standing alone (without a counted object)


Zvolili tři z pěti mistopředsedů. (=lit. (They) elected three out of five vice-chairs)

Figure 8.180. Adjectival numerals standing alone (without a counted object)


Třetí už jsme nestihli. (=lit. Third (we) already AUX missed)

Figure 8.181. Counted objects in coordination


Má 10 tuzemských jogurtů a 5 cizich. (=lit. (He) has 10 domestic yoghurts and 5 foreign)

Figure 8.182. Counted objects in coordination


Vystudoval 8 třid, čtyři rumunské, čtyři české. (=lit. (He) finished 8 classes, four Romanian, four Czech)

### 8.10.1.2 Numerals with the meaning of a "container"

Distinct from the numerals that have the function of an attribute (RSTR) when combined with a counted object, there are also numerals that have the function (meaning) of a container in the same environment (cf. the functor MAT - Section 7.10.4, "MAT"). Numerals with the meaning of a container are syntactic (hence semantic) nouns (sempos=n.quant. def; see Section 5.6.1.5, "Definite quantificational semantic nouns").

When such a numeral is combined with a counted object, the governing node is the node representing the numeral and the node for the counted object depends on it. The node representing the counted object gets the MAT functor.

The following numerals are considered numerals with the meaning of a container:

- milion (=million), (and other numerals ending in -ion), miliarda (=billion), polovina (=half), polovice (=half), půl(e) (=half), třetina (=(one) third), čtvrt (=(one) fourth/quarter), čtvrtina (=(one) fourth), tisicina (=(one) thousandth), tucet (=dozen), veletucet (=twelve dozen), kopa (=five dozen/heap), řada (=row), spousta (=a lot), hromada (=heap/pile), zástup (=crowd/multitude), dav (=crowd), dvojice (=couple), trojice (=triple), sto (=hundred), tisic (=thousand), trocha/u ( $=a \mathrm{bit}$ ).

In cases when a numeral with the meaning of a container is a counted object at the same time, the annotation differs depending on whether the first (i.e. the "counting") numeral does or does not have the meaning of a container, too. Cf.:

- Žije tu jeden.RSTR milion lidí.MAT (=One million people live here)

The numeral milión is a counted object simultaneously. The (counting) numeral jeden does not have the meaning of a container. The annotation follows the rules in Section 8.10.1.1, "Numerals with the role of an attribute (RSTR)". Cf. Fig. 8.183.

- Ani čtvrt milionu.MAT dolarů.MAT by na to nestačilo. (=Not even a quarter of a million dollars would do)

The numeral milión is a counted object at the same time. The (counting) numeral čtvrt has the meaning of a container. The annotation follows the rules described in the present section. Cf. Fig. 8.184.

More examples:
Po půl roce.MAT se všechno změnilo. (=After half a year everything changed)
První.RSTR polovina června.MAT byla studená. (=The first half of June was cold)
Řada lidí.MAT se ale domnivá pravý opak. (=A number of people think the exact opposite)
s celým stem lidí.MAT (=with hundred people)
byly tam dva.RSTR tisice lidí.MAT (=There were two thousand people there)
dvojice kanoistů.MAT (=lit. couple/pair (of) canoeists) (but: dvojice Mach.ID a Šebestová.ID (=lit. couple Mach and Šebestová); see also Section 8.8.2.1, "Specific rules for certain types of proper nouns")
!!! Cases like s čtvrt milionem lidí (=with a quarter of million people), se sto lidmi (=with hundred people.INSTR), s trochou lidmi (=with a couple of people.INSTR) were (when they emerged) analyzed on a par with cases when the counted object is in the genitive (the node representing the counted object gets the MAT functor).

Figure 8.183. Numerals with the meaning of a "container"


Žije tu jeden milion lidi. (=lit. Lives here one million people)

Figure 8.184. Numerals with the meaning of a "container"


Ani čtvrt milionu dolarů by na to nestačilo. (=lit. Not_even quarter million dollars would for it not_be_enough)

### 8.10.1.3. Numerals with the function of a "label"

Definite cardinal numerals (especially those written in digits) often have the function of a "label". This concerns numerals used for labelling (numbering) objects (e.g. phone/fax numbers, house numbers, post codes, serial numbers, numbers in names of products).

Numerals with the function of a label are syntactic (hence semantic) nouns.
!!! The numerals have the n . quant. def value in the sempos attribute (see Section 5.6.1.5, "Definite quantificational semantic nouns") if they follow these expressions: rok (=year), čislo (=number), telefon (=telephone), fax, tel., PSČ (=post code), paragraf (=article), odstavec (=paragraph), odst. (=para), č. (=No), sbirka (=code of law), zákon (=law), vyhláška (=regulation), sezona (=season), $\$$. If they follow other expressions, the value of the attribute is adj. quant. def.

The numerals with the label function are assigned a functor according to the rules for identifying expressions described mainly in Section 8.8, "Identifying expressions"; in addresses, the numerals usally get the RSTR functor, see Section 8.12.2, "Addresses".

Examples:
Nový Golf 500.RSTR už je na trhu. (=The new Golf 500 is already on the market) Fig. 8.185
Bydlí v ulici Strmá 34.RSTR (=He lives in Strmá 34) Fig. 8.186

Výstavu organizuje Sdružení pro obnovu a rozvoj lidových řemesel a tradic, Vojtěšská l3.RSTR , Praha 1.RSTR, tel.: (02) $291591 . \operatorname{RSTR}$ (=The exhibition is organized by the Association ..., Vojtěšská 13...)

Čtete na str. $\underline{12 . \operatorname{RSTR}(=Y o u ' r e ~ r e a d i n g ~ o n ~ p a g e ~ 12) ~}$
A vzhledem k tomu, že Škodovka zvyšuje ceny rychleji, než jsme očekávali, není daleko doba, kdy se dostaneme $k$ čislu $10000 . \operatorname{RSTR}$ ( $=$...we'll soon get to number 10000 )

Figure 8.185. Numerals with the function of a "label"


Nový Golf 500 už je na trhu. (=lit. New Golf 500 already is on market)

Figure 8.186. Numerals with the function of a "label"


Bydlí v ulici Strmá 34. (=lit. (She) lives in street Strmá 34)

### 8.10.1.4. Numerals with adverbial meanings

Nodes representing numerals like pětkrát (=five times), několikrát (=several times), jednou (=once), podruhé (=for the second time) etc., which express various adverbial meanings, get a functor corresponding to their position in the sentence (adjunct functors).

Examples:
Vyhráli jsme jen dvakrát.THO (=We only won twice) Fig. 8.187

Podruhé.TWHEN už to neudělám. (=I'm not going to do it for the second time)
Třikrát.THO měr, jednou.THO řež. (=lit. Three times measure, once cut; meaning: think twice)

Figure 8.187. Numerals with adverbial meanings


Vyhráli jsme jen dvakrát. (=lit. (We) won AUX only twice)

### 8.10.2. Other rules for the annotation of numbers and numerals

### 8.10.2.1. Competition of a numeral with the attributive function and one with the meaning of a "container"

If a counted object is modified by two (or more) numerals in coordination or apposition, one of which should be assigned the functor RSTR (following the rules in Section 8.10.1.1, "Numerals with the role of an attribute (RSTR)") and the other one has the meaning of a container (see Section 8.10.1.2, "Numerals with the meaning of a "container""), then, both (all) nodes representing the numerals depend on the node for the counted object. Both (all) nodes get the RSTR functor.

Examples:
Tyč je dlouhá čtyří. RSTR a pưl.RSTR metru. (=The pole is four and a half meters long) Fig. 8.188
Pracují už dvě.RSTR a čtvrt.RSTR hodiny. (=They have already worked for two and a quarter hours)
Mám tisic. $\operatorname{RSTR}$ a jeden. RSTR duvod ti nevěrit. (=I have one thousand and one reasons not to believe you)

NB! This type is to be distinguished from the type pět milionů lidí (=five million people) where the numerals do not compete. See also Section 8.10.1.2, "Numerals with the meaning of a "container"".

Figure 8.188. Competition of a numeral with the attributive function and one with the meaning of a "container"


Tyč je dlouhá čtyři a půl metru. (=lit. (The) pole is long four and half meter)

### 8.10.2.2. Numeral expressions "hodně", "více", "dost", "moc", "málo", "méně", "stejně", "plno"

Adverbial meanings (see Section 8.10.1.4, "Numerals with adverbial meanings"). Numeral expressions hodně ( = a lot), dost (=enough), moc (=much), málo (=little), plno (=plenty), stejně (=equally / to_the same_degree) (and their comparative forms vice (=more), méné (=less)) have usually adverbial functions (they are mostly assigned the functor EXT).

Examples:
Hodnĕ.EXT mě zajímalo, jak to funguje. (=I was interested a lot in knowing how it works) Fig. 8.189
Musel se chovat hodně. EXT opatrně (=He had to behave very cautiously).
Polévka je málo.EXT slaná (=The soup is not salty enough).
Attributive function (see Section 8.10.1.1, "Numerals with the role of an attribute (RSTR)"). When combined with a counted noun, the numerals hodně, dost, moc, málo, plno, stejně (and their comparative (and superlative) forms více, méné) have the adjectival function. The node representing a numerals
like these depends on the node for the counted noun and has the RSTR functor. If the counted object (the governing noun) is not present at the surface level, a new node is inserted in its position in the tectogrammatical tree, following the rules in Section 6.12.1.2, "Ellipsis of the governing noun".

Examples:
Vrátili mu hodně.RSTR \{\#EmpNoun.PAT\} . (=They returned him a lot) Fig. 8.190
Mám toho.PAT dost.RSTR (=I've got enough) (dost depends on toho)
Vydělá víc.RSTR \{\#EmpNoun.PAT\} (=He earns more)
Vydělá stejně.RSTR \{\#EmpNoun.PAT\} jako vloni. (=He is going to earn the same (money) as last year)

Dostal méně.RSTR \{\#EmpNoun.PAT\} (=He got less)
NB! When the numerical expression is in the position of the Patient or Effect and agrees with another valency modification (this is a traditional predicative complement), when it is in the position of a predicative complement or the nominal part of a verbonominal predicate, no new node for the counted noun is inserted (see also Section 8.10.1.1, "Numerals with the role of an attribute (RSTR)").

Examples:
Studentů přišlo hodně.COMPL (=lit. Students came many) Fig. 8.191
To je hodně.PAT (=This is a lot) Fig. 8.192
Festivalových filmů existuje jen málo. COMPL (=lit. Festival movies exist only few)
Peněz mu vrátili hodně.COMPL (=lit. Money (they) him returned a lot)
Studentů přišlo více.COMPL (=lit. Students came more)
Děvčat je málo. PAT (=lit. Girls are few)
To je moc.PAT (=This is too much)
To je o di̊vod vic. PAT (=This is one reason more)
NB! A special rule is applied in comparative constructions in which quantities are compared (see Section 8.4.2.1, "Comparing quantities by means of the conjunction "než"").

Figure 8.189. The numeral hodně as an adverbial


Hodně mě zajímalo, jak to funguje. (=lit. A_lot me interested how it works)
Figure 8.190. The numeral hodně as an attribute


Vrátili mu hodně. (=lit. (They) returned him a_lot)

Figure 8.191. The numeral hodně as a predicative complement


Studentů přišlo hodně. (=lit. Of_students came a_lot)
Figure 8.192. The numeral hodně as the Patient


To je hodně. (=lit. This is a_lot)

### 8.10.2.3. Complex numerical expressions

### 8.10.2.3.1. Type "sto čtyřicet tisíc lidi"

Complex numerical expressions of the type sto čtyřicet tisic (=one hundred and forty thousand), dva miliony pět set tisic (=two million five hundred thousand), třicet osm (=thirty-eight) are not assigned any inner structure:

- if a complex numerical expression contains one or more numerals with the meaning of a container, the numeral with the highest numerical value is analyzed as the governing node of the whole numerical expression. The governing node of a complex numerical expression is assigned a functor corresponding to its position in the structure. The nodes representing all the other parts of the numerical expression depend on the governing node (they are sisters w.r.t. each other) and are assigned
the RSTR functor. The node representing the (possible) counted object has the MAT functor and depends on the governing node of the complex numerical expression.

Examples:
sto.RSTR čtyřicet.RSTR tisíc židiů.MAT (=one hundred and forty thousand Jews) Fig. 8.193
Vydělal dva.RSTR tisice. PAT čtyři.RSTR sta.RSTR pět.RSTR korun.MAT (=He earned two thousand four hundred and five crowns)

Žije zde jeden.RSTR milion.ACT pět.RSTR set.RSTR tisićc.RSTR lidí.MAT (=One million five hundred thousand people live here)

- if there is no numeral with the meaning of a container in the complex numerical expression, the governing node of the expression is the node for the counted object and all the other parts of the expression depend on the governing node (they are sister w.r.t. each other) and are assigned the RSTR functor.

Examples:
třicet.RSTR osm.RSTR žákư (=thirty-eight pupils) Fig. 8.194
Vydělal dvacet.RSTR pět.RSTR korun.PAT (=He earned twenty-five crowns)
Žije zde šedesát.RSTR dva.RSTR lidí.ACT (=Sixty-two people live here)

Numerals written in digits. If a numerical expression is written in digits, it is assigned a single node.
Examples:
Mám 38 234.RSTR korun. PAT (=I've got 38234 crowns) Fig. 8.195
Mám 38 234.PAT ( $=$ I've got 38 234)
Vydělal 2 405.RSTR korun.PAT (=He earned 2405 crowns)
Žije zde $1500000 . \mathrm{RSTR}$ lidí.ACT ( $=1500000$ people live here)
Žije zde 1500 000.АСТ ( $=1500000$ (people) live here)

Figure 8.193. Complex numerical expressions

sto čtyřicet tisic židiů (=lit. hundred forty thousand Jews)
Figure 8.194. Complex numerical expressions

třicet osm žáků (=lit. thirty eight pupils)

Figure 8.195. Complex numerical expressions


Mám 38234 korun. (=lit. (I) have 38234 crowns)

### 8.10.2.3.2. Type "tyč dlouhá 2 m 10 cm 4 mm "

Numerical expressions that are combinations of numerals and physical units, i.e. expressions of the type $2 \mathrm{~m} 10 \mathrm{~cm} 4 \mathrm{~mm}, 1 \mathrm{~h} 20 \mathrm{~min}$ are not assigned any inner structure. The governing node of the expression is the physical unit with the highest value. The governing node of the numerical expression is assigned a functor corresponding to its position in the structure. The nodes for the other physical units depend on the governing node (they are sisters w.r.t. each other) and get the RSTR functor; the nodes for the numerals depend on their respective nodes for the physical units and get the RSTR functor, too.

Examples:
Tyč je dlouhá $\underline{2} \underline{m} . \operatorname{EXT} \underline{10} \underline{\mathrm{~cm}} \underline{4} \underline{\mathrm{~mm}}$. (=The pole is 2 m 10 cm 4 mm long) Fig. 8.196
Film začiná ve $\underline{2}$ hod.TWHEN $\underline{35} \underline{\mathrm{~min}}$. (=The film begins at (lit.) 2 h 35 min ) (The following case is different: Film začíná ve 2 hod.TWHEN a 35 min.TWHEN (=The film begins at (lit.) 2 h and 35 min ))

Vážil $\underline{53}$ tun.EXT 15 kg . (=It weighed $53 t 15 \mathrm{~kg}$ ) (The following case is different: Vážil 53 tun.EXT a 15 kg .EXT (=It weighed 53 t and 15 kg ))

NB! The rules as described above do not concern forms like 7: 30, which are analyzed (as paratactic structures) with the help of the OPER functor (see Section 8.11, "Mathematical operations and intervals"), and forms like dne 3. února roku 2003 (=on 3 February 2003), 3. 2. 2003 e.t.c., which are assigned inner structure (see Section 8.12.10, "Set expressions in journalism" and Section 6.11.3, "Mutual relation of two or more locative/directional or temporal modifications").

NB! Expressions of the type 40procentni ( $=40 \%$.adj), 20metrový (=20m.adj) are represented by a single node with a t-lemma of the form: 40_procentni, 20_metrový (see Section 4.3.1, "Multi-word tlemma").

Figure 8.196. Complex numerical expressions


Tyč je dlouhá 2 m 10 cm 4 mm . (=lit. Pole is long 2 m 10 cm 4 mm )

### 8.10.2.4. Decimals and fractions

Decimals. Decimal numbers (written in digits) are represented as a single node and get a functor depending on their position in the structure.

Examples:
Výroba se zvýšila o 2,3.RSTR procenta. (=The production increased by 2.3 per cent)
Výstavu navštívilo 2.5.RSTR tisic lidí. (=2.5 thousand people visited the exhibition)
Fractions. Fractions written in digits (with a slash) are analyzed with the help of the OPER functor (see Section 8.11, "Mathematical operations and intervals"), i.e. like paratactic structures. If a fraction is written in words, the rules described above are followed (especially Section 8.10.1.2, "Numerals with the meaning of a "container"").

Examples (fraction in digits):
$1 / 3$ vody odtekla. [\#Slash.OPER] (=one third of the water flew off) Fig. 8.197
$1 / 2$ práce už je za námi. [\#Slash.OPER] (=half of the work is over already)

Examples (fraction written in words):
1.RSTR třetina.ACT vody.MAT odtekla. (=one third of the water flew off) Fig. 8.198
1.RSTR polovina.ACT práce.MAT už je za námi. (=half of the work is over already)

Figure 8.197. Fractions written in digits

$1 / 3$ vody odtekla. (=lit. 1/3 of_water flew_off)

Figure 8.198. Fractions written in words


Itřetina vody odtekla. (=lit. 1 third of_water flew_off)

### 8.11. Mathematical operations and intervals

Mathematical operations (addition, subtraction, multiplication, division/proportion) are analyzed solely as paratactic structures with the functor OPER (see below in Section 8.11.1, "Mathematical operations").

Intervals (temporal, spatial or other) are analyzed in two different ways: either as paratactic structures with the OPER functor assigned to their root nodes, as well (see Section 8.11.2.3, "Intervals analyzed as a paratactic structure"), or by means of appropriate temporal and locative/directional functors (see Section 8.11.2.1, "Temporal intervals analyzed by means of temporal functors" and Section 8.11.2.2, "Spatial intervals analyzed by means of locative/directional functors").

Members of mathematical operations and intervals are called operands. Expressions conveying the meaning of the relevant operation or interval are called operators.

### 8.11.1. Mathematical operations

Mathematical operations are constructions used for expressing proportion (division), multiplication, addition and subtraction.

Constructions with the meaning of mathematical operations are analyzed as paratactic structures (see Section 6.6, "Parataxis"). The relation between the two parts of a paratactic structure is expressed by the functor OPER (see Section 7.12.3, "Functor for mathematical operations and intervals (OPER)") assigned to the root of the paratactic structure. The root of such a paratactic structure is the node representing the given operator (for more on operators, see Section 8.16.2, "Operators").

The nodes representing operands of a given mathematical operation are the terminal members of the paratactic structure. The value of their is_member attribute is 1 . Nodes that are neither operands of a mathematical operation nor delimit an interval are assigned the 0 value in their is_member attribute (see also Table 6.3, "Values of the is_member attribute").

The functor of the operands corresponds to the position of the whole structure in the sentence, and is usually the same for both (all) of them.

Examples:
Prodáváme byt $\underline{4+1 .}$. (=We are selling an appartment 4+1) Fig. 8.199
Přišel v 7:30. (=He came at 7:30) Fig. 8.200
Zápas skončil 5:0. (=The match ended 5:0) Fig. 8.201
obdélník $23 \times 42 \mathrm{~cm}$ (=a square $23 \times 42 \mathrm{~cm}$ ) Fig. 8.202
10 minus 2 je 8. (10 minus 2 is 8 )
!!! Individual types of mathematical operations will be distinguished by various subfunctors of the OPER functor in the future.
!!! Time in the form $7: 30$ (with a colon) is represented as a mathematical operation (paratactic structure), time in the form 7.30 (with a period) is represented by a single node with the t -lemma 7.30.

Figure 8.199. Mathematical operation


Prodáváme byt 4+1. (=lit. (We) are_selling flat 4+1)

Figure 8.200. Mathematical operation


Přišel v 7:30. (=lit. (He) came at 7:30)
Figure 8.201. Mathematical operation


Zápas skončil 5 : 0. (=lit. Match ended 5:0)

Figure 8.202. Mathematical operation

obdélnik $23 \times 42 \mathrm{~cm}$ (=lit. square $23 \times 42 \mathrm{~cm}$ )

### 8.11.2. Intervals

Intervals are constructions delimiting the boundaries (span, interval) of a temporal, spatial, numerical segment (range) but also other kinds of intervals. For example:
od dvou do pěti let (=from two to five years)
od zeleniny po drogerii (=from greengrocer's to drugstores)
Intervals are analyzed in two different ways:

- temporal and spatial intervals are analyzed by means of appropriate temporal and locative/directional functors (see Section 8.11.2.1, "Temporal intervals analyzed by means of temporal functors" and Section 8.11.2.2, "Spatial intervals analyzed by means of locative/directional functors").
- those temporal and spatial intervals which could not be interpreted as intervals if analyzed by means of the relevant temporal and spatial functor (the interval meaning would be lost) - and all other intervals - are represented as paratactic structures with the OPER functor assigned to the root of the structure (see Section 8.11.2.3, "Intervals analyzed as a paratactic structure").


### 8.11.2.1. Temporal intervals analyzed by means of temporal functors

The following constructions are analyzed by means of temporal functors (esp. TSIN and TTILL, but also TWHEN; see Section 7.3, "Temporal functors") and subfunctors (see Section 7.13.1, "Subfunctors"):

- constructions with the meaning: "from - to".

Examples:
Sněžilo od Vánoc.TS IN až do Velikonoc.TTILL (=It snowed from Christmas to Easter) Fig. 8.203
Konalo se to od 9.TS IN azz do 10 hodin.TTILL (=It took place from 9 until 10 o'clock) Fig. 8.204
Výsledky byly stále stejné, počinaje 5. červnem.TS IN až do 10. června.TTILL (=The results were the same starting on 5 june and ending on 10 June) Fig. 8.205

Pracoval od rána.TS IN $a z ̌$ po tu chvili.TTILL (=He worked since the morning until that moment)
Pracoval na tom od 5. \{června.TS IN\} až do 10. června.TTILL (=He worked on that from 5 June until 10 June)

- constructions with the meaning "in the time between".

Examples:
Konalo se to mezi 5. \{červnem.TWHEN [subfunctor=betw]\} a 10. červnem.TWHEN [subfunctor=betw] (=It took place between 5 June and 10 June) Fig. 8.206

Stalo se to mezi pondélkem.TWHEN [subfunctor=betw] a středou.TWHEN [subfunctor=betw] (=It happened between Monday and Wednesday)

Figure 8.203. Temporal intervals analyzed by means of temporal functors


Sněžilo od Vánoc až do Velikonoc. (=lit. (It) snowed from Christmas as_long_as to Easter)

Figure 8.204. Temporal intervals analyzed by means of temporal functors


Konalo se to od 9 až do 10 hodin. (=lit. Took_place REFL it from 9 as_long_as to 10 o'clock)
Figure 8.205. Temporal intervals analyzed by means of temporal functors


Výsledky byly stále stejné, počínaje 5. červnem až do 10. června. (=lit. Results were still same, starting 5 June as_long_as to 10 June)

Figure 8.206. Temporal intervals analyzed by means of temporal functors


Konalo se to mezi 5. a 10. červnem. (=lit. Took place REFL it between 5 and 10 June)

### 8.11.2.2. Spatial intervals analyzed by means of locative/directional functors

The following constructions are analyzed by means of appropriate locative/directional functors (esp. DIR1 and DI3, but also DIR2 and LOC; see Section 7.4, "Locative and directional functors") and subfunctors (see Section 7.13.1, "Subfunctors"):

- constructions with the meaning "where from - which way - where to".

Examples:
Znám to od Aše. DIR1 přes Prahu.DIR2 až po Brno.DIR3 (=lit. (I) know it from Aš through Praha to Brno) Fig. 8.207

Cesta vedla od Ǎ̌e.DIR1 přes Prahu.DIR2 až do Brna.DIR3 (=The journey went from Ǎ̌ through/via Praha to Brno)

- constructions with the meaning "in the area between".

Example:
Dálnice vede mezi Prahou.LOC [subfunctor=betw] a Brnem.LOC [subfunctor=betw] (=The highway goes between Praha and Brno) Fig. 8.208

Figure 8.207. Spatial intervals analyzed by means of locative/directional functors


Znám to od Aše přes Prahu až po Brno. (=lit. (I) know it from Aš via Praha as_far_as to Brno)
Figure 8.208. Spatial intervals analyzed by means of locative/directional functors


Dálnice vede mezi Prahou a Brnem. (=lit. Highway leads between Praha and Brno)

### 8.11.2.3. Intervals analyzed as a paratactic structure

Temporal and spatial intervals that cannot be analyzed by means of appropriate temporal and locative/directional functors - because the interval meaning would be lost - and all other constructions with the interval meaning (with no temporal or spatial meaning) are represented as paratactic structures with the OPER functor assigned to the root of the structure. The root of such a paratactic structure is the node representing the given operator (for more on operators, see Section 8.16.2, "Operators").

The nodes representing the expressions delimiting the interval (i.e.the operands) are the terminal members of the paratactic structure. The value of their is_member attribute is 1. Nodes that are neither operands of a mathematical operation nor delimit an interval are assigned the 0 value in their is member attribute (see also Table 6.3, "Values of the is_member attribute").

The functors of the operands correspond to the position of the interval in the given sentence and they usually have the same values.

The following types of constructions are analyzed as having the "interval" meaning (i.e. these are represented by paratactic structures):

- temporal intervals that cannot be analyzed by means of temporal functors without losing the interval interpretation.

Such temporal intervals are mostly expressed by means of a dash or $a z \check{ }$.
Examples:
V období 1995 až 1999 jsem studoval na gymnáziu. (=In the period 1995 to 1999 I studied at high school) Fig. 8.209

Konalo se to 4. -9. června. (=It took part 4-9 June)
zprávy (ponděli - pátek) (=news (Monday - Friday))

- spatial intervals that cannot be analyzed by means of locative/directional functors without losing the interval interpretation.

These spatial intervals are mostly expressed by means of a dash or $a z ̌$.
Examples:
 8.210

Brno až Praha (=Brno - Praha)

## - quantitative intervals.

Examples:
trest od tří do pěti let (=sentence from three to five years) Fig. 8.211
Nájem se o dvě, tří stovky zvýší. (=The rent will go up by two, three thousand) Fig. 8.212
Přijedou na čtyř̌i, pět, šest dní. (=They are coming for four, five, six weeks)
Přinesl 5 až 10 knih. (=He brought (from) five to ten books)
Přišlo tam 100 až 200 členů. (100-200 members came there)
od 10 do 20 žáků (=from 10 to 20 pupils)
mezi 10 a 20 žáky (=between 10 and 20 pupils)
10-20 žákio (=10-20 pupils)
vklad na čtrnáct dnů až jeden rok (=lit. deposit for fourteen days up_to one year)

- intervals with the meaning of a "scale".

Examples:
Sledovali to všichni, od dětí přes mládež až po dospělé. (=Everybody watched it, from children and youth to adults) Fig. 8.213
od hlavních bodů do nejmenšich detailů (=from the main points to the tiniest details)
od hlavních bodů přes přiklady do nejmenšich detailů (=from the main points to the examples and tiniest details)
od hlavních bodi̊ po nejmenši detaily (=from the main points to the tiniest details)
Mimoevropskou rytmiku najdeme v řadě skladeb počinaje úvodním Come talk to me přes Love to be loved až po závěrečný Secret word. (=Non-European rhythms can be found in a number of pieces, from Come talk to me to Love to be loved and the final Secret word)

## - list of items in which the order is relevant.

Příklad:
Firmy byly vybrány v pořadí: Metrostav, Konstruktiva a Telecom. (=The companies were chosen in the following order: Metrostav, Konstruktiva and Telecom) Fig. 8.214

Figure 8.209. Intervals analyzed as a paratactic structure (OPER)


V období 1995 až 1999 jsem studoval na gymnáziu. (=lit. In period 1995 to 1999 (I) AUX studied at high-school)

Figure 8.210. Intervals analyzed as a paratactic structure (OPER)


Na trase Praha - Brno došlo k nehodě. (=lit. On route Praha - Brno happened - accident)

Figure 8.211. Intervals analyzed as a paratactic structure (OPER)

trest od tří do pěti let (=lit. sentence from three to five years)

Figure 8.212. Intervals analyzed as a paratactic structure (OPER)


Nájem se o dvě, tři stovky zvýši. (=lit. Rent REFL by two, three hundred rises)

Figure 8.213. Intervals analyzed as a paratactic structure (OPER)


Sledovali to všichni, od dětí přes mládež az̃ po dospělé. (=lit. Watched it everybody, from children through youth - to adults)

Figure 8.214. Intervals analyzed as a paratactic structure (OPER)


Firmy byly vybrány v pořadí: Metrostav, Konstruktiva a Telecom. (=lit. Firms were chosen in order: M., K. and T.)

### 8.12. Annotation of structured text

This section describes the rules for representing texts possessing a highly specific structure:

- identification of statutes and regulations (see Section 8.12.1, "Identification of statutes and regulations"),
- addresses (see Section 8.12.2, "Addresses"),
- announcements (see Section 8.12.3, "Announcements"),
- tables (see Section 8.12.4, "Tables"),
- television programmes (see Section 8.12.5, "Television programmes"),
- forms (see Section 8.12.1, "Identification of statutes and regulations"),
- lists (see Section 8.12.7, "Lists"),
- bibliographical data (see Section 8.12.8, "Bibliographical data"),
- headings, titles of articles and sections (see Section 8.12.9, "Headings, titles of articles and sections"),
- set expressions in journalism (see Section 8.12.10, "Set expressions in journalism"),
- sports commentaries (see Section 8.12.11, "Sports commentaries").

The syntactic structure of these texts, generically termed structured, is so specific that the rules governing their annotation often correspond only marginally to those for ordinary text and may be completely divergent from them. Here, the assignment of functors is frequently inconsistent with the semantic concept on a tectogrammatical level, essentially involving the technical representation of the text.

Basic rules for the annotation of structured texts. The annotation of structured texts is governed by the general rules for distinguishing between verbal clauses and non-verbal clauses described in Section 6.4, "Verbal and non-verbal clauses": the constructions frequently contain no finite verb form; next we consider whether the construction possesses or does not possess a morphology. If the construction possesses a morphology (does not consist merely of nominative keywords) it is treated as a verbal clause. NB: constructions of the type Rozhodčí: Ulrich. (=Referee: Ulrich.), where a punctuation mark stands for a predicate, are also treated as verbal clauses. Keyword structures (with no morphology) are represented as co-ordinate or appositive nominative clauses. For the rules governing annotation of paratactic structures, see Section 6.6, "Parataxis".

In addition to these general rules, further, more detailed, rules have been adopted for certain types of structured texts; in particular, model trees have been established (templates). Specific constructions are represented in accordance with the given rules, by analogy with the model trees.

### 8.12.1. Identification of statutes and regulations

The basic forms of identification of statutes or regulations and the approach to their annotation are shown in the following examples:

Nájemné za nebytové prostory je limitováno vyhláškou ministerstva financí č. 585/90 Sb., o cenové regulaci nájemného z nebytových prostor (=Charges for rental of non-residential accommodation are limited by Ministry of Finance regulation no. 585/90 Sb., regulation of rental charges in respect of non-residential accommodation.) Fig. 8.215
§256 Obchodniho zákoniku (=\$256 of the Commercial Law Code.) Fig. 8.216
§1 odst. 4 Obchodniho zákoniku (=para. §1 . 4 of the Commercial Law Code) Fig. 8.217
For purposes of annotation all the various modifications of these basic forms are adapted to the constructions shown, for example:

Vyhláška 526/90 Sb., o cenách.(=Regulation 526/90 Sb., on prices.) Fig. 8.218
Stalo se to podle 513 sbirky.(=This took place according to article 513.) Fig. 8.219

Figure 8.215. Identification of statutes and regulations


Nájemné za nebytové prostory je limitováno vyhláškou ministerstva financí č. 585 / 90 Sb., o cenové regulaci nájemného z nebytových prostor. (=lit. Charges_for_rental for non-residential accommodation are limited by_regulation (of) Ministry of_Finance no. $585 / 90$ Sb., on price regulation (of) rental_charges from non-residential accommodation.)

Figure 8.216. Identification of statutes and regulations

§256 Obchodního zákoniku (=lit. §256 (of the) Commercial Law_Code)
Figure 8.217. Identification of statutes and regulations

§1. odst. 4 Obchodního zákoníku (=lit. §1 para. 4 (of the) Commercial Law_Code)

Figure 8.218. Identification of statutes and regulations


Vyhláška 526/90 Sb., o cenách. (=lit. Regulation $526 / 90$ Sb. on prices.)

Figure 8.219. Identification of statutes and regulations


Stalo se to podle 513 sbirky. (=lit. Took_place REFL it according 513 (of the) law_code.)

### 8.12.2. Addresses

The following rules have been adopted for the annotation of addresses:

- In addresses the following are distinguished:
- the name of the addressee,
- the address (street name, building number, town or city, postcode),
- other items: telephone, email, fax.
- the effective roots of the addressee's name (person or institution) are assigned the functor DENOM (cf. for example: Fig. 8.220), with the exception of addresses which are syntactically incorporated in a sentence, when the functor of these nodes is determined by the position of the address in the sentence structure (cf. for example: Fig. 8.221).
- an addressee's name consisting of more than one word is analysed on the tectogrammatical level according to the basic rules of annotation, with particular reference to the instructions for the annotation of proper names and titles (see Section 8.8.1, "Basic rules for the annotation of identifying expressions"; cf. for example: Fig. 8.221 and Fig. 8.222).
- the effective root node of the address, and possibly the nodes for telephone, fax and email, is (are) dependent on the effective root node of the addressee's name (these nodes are sisters) (see below). All these nodes have the functor RSTR (cf. for example: Fig. 8.221 and Fig. 8.222). If an address contains additional telephone/fax numbers or email addresses, these items are represented as a paratactic structure (cf. for example: Fig. 8.223).
- the effective root of an address is selected according to the position in the following hierarchy (the highest one is the root):

```
state (country)
```

country
province
region
district
town (municipality)
ward / neighbourhood
street (square, place)
building (hotel, offices...)
storey
post box
department
The nodes for all other (subsidiary) items in the address are daughter nodes of the effective address node. They are also dependent on each other according to the position in the hierarchy and they always have the functor RSTR (thus for example: The node for the town or city name is dependent on the node for the name of the state (country); the node for the street name is dependent on the node for the town or city name). Rules for representing the names of towns or cities, streets etc. see Section 8.8 , "Identifying expressions".

- nodes for house numbers are dependent, with the functor RSTR, on the effective root of the street name. Nodes for postcodes are dependent, with the functor RSTR, on the effective root node of the town or city name (municipality). Similarly (with the functor RSTR) the nodes representing the numbers of the storeys and postboxes, telephone numbers and faxes are dependent on the respective governing nodes. Complex numbers (of telephones, faxes, postcodes) are recorded as one node (see also Section 4.3.1, "Multi-word t-lemma").
- If the addressee's name does not figure as the main component of the address but is positioned elsewhere in its hierarchy, e.g. at the end or before the telephone or fax number, it is inserted in the tectogrammatical tree in this position (cf. for example: Fig. 8.223).
- if before the name of the addressee a word such as contact, address, representative etc. appears, this construction is analysed as a verb clause and the appropriate punctuation mark (usually a colon) is represented as the effective root of the verbal clause with the functor PRED (cf. for example: Fig. 8.222).

Examples and model trees:
Jiří Kovalský, Smetanka 15, Praha 4. (=Jiří Kovalský, Smetanka 15, Praha 4.) Fig. 8.220
Odpovědi připravila advokátní kancelář Vácha a Malý, Olšanská la, 13000 Praha 3 - Žižkov, tel.: (=Replies prepared by Vácha \& Malý, Solicitors, Olšanská la, 13000 Praha 3 - Žižkov, tel.:) (02) 69193 33. Fig. 8.221

Kontakt: Vars, s. r. o., Kolejni 5, 16000 Praha 6, tel.: 224310 451, fax: 224310 236. (=Contact: Vars, s. r. o., Kolejni 5, 16000 Praha 6, tel.: 224310 451, fax: 224310 236.) Fig. 8.222

Kontakt: Demo, Mlžná, Brno, paní Nováková, tel. 245523 nebo 603354965. (=Contact: Demo, Mlžná, Brno, Ms. Nováková, tel. 245523 or 603354965 .) Fig. 8.223

Europress, Moravská 12D, P.O. Box 351, 65901 Brno. (=Europress, Moravská 12D, P.O. Box 351, 65901 Brno.) Fig. 8.224

Tuto částku zasilejte na účet čislo 10006 2012804-021/0100, Komerční banka, Praha 3, Koněvova 91, variabilní symbol 602 22. (=Send this remittance to a/c no. 10006 2012804-021/0100, Komerční banka, Praha 3, Koněvova 91, sort code 602 22.) Fig. 8.225

Kontakt: Canstar Sport Inc., 5705, rue Ferier, Suite 200, Ville Mont Royal, québec, Kanada H 4 P 1 N 3, tel.: 785857. (=Contact: Canstar Sport Inc., 5705, rue Ferier, Suite 200, Ville Mont Royal, Québec, Canada H4P 1N3, tel.: 785857.) Fig. 8.226

Figure 8.220. Address


Jiří Kovalský, Smetanka 15, Praha 4. (=lit. Jiří Kovalský, Smetanka 15, Praha 4.)

Figure 8.221. Address


Odpovědi připravila advokátní kancelář Vácha a Malý, Olšanská 1a, 13000 Praha 3 - Žižkov, tel.: (02) 69193 33. (=lit. Replies prepared law centre Vácha \& Malý, Olšanská 1a, 13000 Praha 3 Žižkov, tel.:(02) 69193 33.)

Figure 8.222. Address


Kontakt: Vars, s. r. o., Kolejni 5, 16000 Praha 6, tel.: 224310 451, fax: 224310 236. (=lit. Contact: Vars, s. r. o., Kolejni 5, 16000 Praha 6, tel.: 224310 451, fax: 224310 236.)

Figure 8.223. Address


Kontakt: Demo, Mlžná, Brno, paní Nováková, tel. 245523 nebo 603354965. (=lit. Contact: Demo, Mlžná, Brno, Ms. Nováková, tel. 245523 or 603354965.$)$

Figure 8.224. Address


Europress, Moravská 12D, P. O. Box 351, 65901 Brno. (=lit. Europress, Moravská 12D, P. O. Box 351, 65901 Brno.)

Figure 8.225. Address


Tuto částku zasilejte na účet číslo 10006 2012804-021/0100, Komerční banka, Praha 3, Koněvova 91, variabilní symbol 602 22. (=lit. This remittance send to a/c no. 10006 2012804-021/0100, Komerční banka (Commercial Bank), Praha 3, Koněvova 91, sort code 602 22.)

Figure 8.226. Address


Kontakt: Canstar Sport Inc., 5705, rue Ferier, Suite 200, Ville Mont Royal, québec, Kanada H 4 P 1 N 3, tel.: 785857. (=Contact: Canstar Sport Inc., 5705, rue Ferier, Suite 200, Ville Mont Royal, Québec, Canada H4P 1N3, tel.: 785857.)

### 8.12.3. Announcements

Announcements and similar constructions are analysed in principle according to the general rules for the annotation of verbal and non-verbal clauses (see Section 6.4, "Verbal and non-verbal clauses"): if the verb konat se (=to be held / to take place) can be added to the sequence (of key expressions) and the construction possesses morphology (the parts of the announcement are in the appropriate case forms etc.), the construction is interpreted as a verbal clause (cf. for example: Fig. 8.229). If the construction does not show evidence of an elided verb (the construction possesses no morphology and the
structure consists of a series of nominative keywords), the structure is analysed as a non-verbal clause, as individual components, in apposition or co-ordinated. The effective roots of the announcement are then assigned the functor DENOM (cf. for example: Fig. 8.230).

Cf:

- Trhy: v Púchově. (=Markets: in Púchov.)

The announcement is represented as a verbal clause. The effective root node of the construction is the node representing the colon; it is assigned the functor PRED and the t-lemma \#Colon. Cf. Fig. 8.227.

- Trhy: 5.-8.11. (=Markets: 5.-8.11.)

The date behaves as "v Púchově" (= in Púchov). The announcement is therefore represented as a verbal clause. The effective node of the clause is the node representing the colon; it is assigned the functor PRED and the t-lemma \#Colon.

- Trhy: Púchov. (=Markets: Púchov.)

The announcement is represented as a non-verbal clause, as two nominative clauses in apposition, whose effective roots are assigned the functor DENOM. Cf. Fig. 8.228.

Additional examples and model trees:
Domexpo - jarní veletrh spotřebniho zboži: 12. 4. 1994. (=Domexpo - spring consumer goods fair: 12. 4. 1994.) Fig. 8.229

Brno, V'staviště: Domo-veletrh nábytku, 14. 4. 1996. (=Brno, Exhibition Site: Domo - furniture fair, 14. 4. 1996.) Fig. 8.230

Figure 8.227. Announcements


Trhy: v Púchově. (=lit. Markets: in Púchov.)

Figure 8.228. Announcements

```
O
root
O
#Colon.enunc
APPS
0
trh Púchov
f_DENOM_M f_DENOM_M
n.denot n.denot
inan.pl inan.sg
```

Trhy: Púchov. (=lit. Markets: Púchov.)

Figure 8.229. Announcements


Domexpo - jarní veletrh spotřebního zboži: 12. 4. 1994. (=lit. Domexpo - spring fair (of) consumer goods: 12. 4. 1994.)

Figure 8.230. Announcements


Brno, Výstaviště: Domo - veletrh nábytku, 14. 4. 1996. (=lit. Brno, Exhibition Site: Domo - fair (of) furniture, 14. 4. 1996.)

### 8.12.4. Tables

Tables are presented in PDT row by row.
Tables whose meaning is difficult to interpret. In many tables, the meaning is difficult to interpret within the framework of individual rows, firstly because the meaning of the table is to be interpreted column by column and not only row by row, and secondly because the individual constructions do not possess morphology, but consist of nominative keywords. The annotation therefore represents individual items in the table only as co-ordinated nominative clauses (the effective roots are assigned the functor DENOM). The root of a paratactic structure is as a rule a newly established node with the t-lemma \#Separ (as in the construction there is usually no punctuation). If individual items in the table have modifiers, the common rules for the analysis of components on a tectogrammatical level are followed.

Example of a table and model trees:
kurzovní listek (= table of exchange rates)
střed nákup prodej (=mean buy sell)
dolar 27,58 26,88 28,28 (=Dollar 27,58 26,88 28,28)
marka 18,51 18,05 18,97 (=Mark 18,51 18,05 18,97)
jen (sto .PAR) 22,24 21,44 22,76 (=Yen (hundred) 22,24 21,44 22,76)
švýcarský frank 21,06 20,53 21,59 (=Swiss Franc 21,06 20,53 21,59)
Cf. Fig. 8.231.
Interpretation of the meaning of the table is possible. However, if the meaning can be interpreted within the framework of individual rows (a row in the table carries meaning in itself, a verb can be posited in the construction and a morphology can be assigned to the construction), then a new node is inserted into the tectogrammatical tree for the empty verb (t_lemma=\#EmpVerb; functor=PRED). Individual nodes are dependent on this newly established node and functors are assigned according to their function and their dependency w.r.t. the newly established node for a verb.

Example of a table and model trees:

1. D. Streda - Boby Brno 10 (=1. D. Streda - Boby Brno 1 0)
2. Vitkovice - Inter 0 ( $=2$. Vitkovice - Inter 0)
3. Sparta-Olomouc 1 (=3. Sparta-Olomouc 1)
4. Nitra - Slavia 02 (=4. Nitra - Slavia 0 2)

Cf. Fig. 8.232.

Figure 8.231. Table
$\circ$
$\vdots$
root
0




DEVIZY VALUTY (= EXCHANGE CURRENCIES)
střed nákup prodej (=lit. mean buy sell)
dolar 272628 (=lit. Dollar 2726 28)
marka 191820 (=lit. Mark 1918 20)

Figure 8.232. Table


1. D. Streda - Boby Brno 10 (=lit. 1. D. Streda - Boby Brno 1 0)
2. Vítkovice - Inter 0 (=lit. 2. Vitkovice - Inter 0)

### 8.12.5. Television programmes

The following rules have been adopted for the annotation of television programmes:

- Individual items in the television schedule are recorded as verbal clauses whose effective root is the node for an empty verb ( $t$ _lemma=\#EmpVerb; functor=PRED).
- the scheduled programme time is represented as supplementary data with the functor TWHEN.
- the title of the programme is represented as an Actor. The structure of the title is represented according to the rules for the annotation of titles (see Section 8.8.1, "Basic rules for the annotation of identifying expressions").

Examples and model trees:
8.00 Trh, obchod, finance. (=8.00 Market, commerce, finance.) Fig. 8.233
8.30 Minuty dne. (=8.30 Minutes of the day.) Fig. 8.234

Figure 8.233. Television programmes

8.00 Trh, obchod, finance. (=lit. 8.00 Market, commerce, finance.)

Figure 8.234. Television programmes

8.30 Minuty dne. (=lit. 8.30 Minutes (of the) day.)

### 8.12.6. Forms

The following constructions are defined as forms:

- heading - colon - entered data.

Example:
Atény : jasno 32 / 22 (=Athens: fine 32 / 22)
Berlín: přeháňky 27 / 14 (=Berlin: showers 27 / 14)
Bratislava: jasno 24 / 12 (=Bratislava: fine 24 / 12)
Budapešt': jasno 28 / 18 (=Budapest: fine 28 / 18)
Helsinky: polojasno 19 / 14 (=Helsinki: clear spells 19 / 14)
Example:
Figure : 3
Kancelář: Rekrea (=Office: Rekrea)
Oblast: ČR-Jeseniky (=Region: Czech Republic - Jeseniky)
Ubytovací zařízeni: Penzion Brněnka (=Accommodation facilities: Brněnka Guest House)
Cena za osobu Kč: 1890 (=Price per person Kč: 1 890)
Dítě: Do 7 let zdarma pobyt i strava (=Child: Under 7 years accommodation and meals free)

Stravováni: V ceně pobytu je záloha 60 Kč na den (=Meals: The price of the accommodation includes a deposit of 60 Kč per day)

Doprava: Vlastní, autobus Branná , vlak Ostružné. (=Transport: Own transport or bus to Branná, train to Ostružné.)

Popis: Penzion leží asi 2,5 km od Branné v okrese Šumperk v klidné krajině. (=Description: The guest house is situated approximately 2.5 km from Branná in Šumperk district, in peaceful countryside.)

Forms are represented as simple verbal clauses in which the effective root is represented by a node standing for a colon between the heading and the data entered ( $t$ _lemma=\#Colon; functor=PRED). The effective root of the heading is assigned the functor ACT and the effective root of the data entered is usually a Patient.

Cf.:

- Figure: 1

The construction is represented as a verbal clause. The effective root is represented by a node standing for a colon ( $t$ _lemma=\#Colon; functor=PRED). The effective root of the heading (the node representing the noun obrázek) is assigned the functor ACT , and the effective root of the data entered (the node representing the number 1 ) is assigned the functor PAT. Cf. Fig. 8.235.

- Figure 1

The construction is not represented as a verbal clause. The node representing the number 1 is assigned the functor RSTR and is dependent on the node for the noun obrázek, which is assigned the functor DENOM.

If one part of the form (usually the data entered) consists of a clause with a finite verb form, then the relationship between the two parts (head and data entered) is represented as an appositional relationship (cf. for example: Fig. 8.237). More complex constructions are treated in such a way as to ensure that they correspond as closely as possible to the basic rules of annotation on the tectogrammatical level. If appropriate, an empty verb is inserted both in the left-hand part of the form and in the right-hand part (cf. for example: Fig. 8.238, Fig. 8.239 and Fig. 8.240).

Examples and model trees:
Helsinky polojasno 19 / 14. (=Helsinki: clear spells 19 / 14.) Fig. 8.236
Stravování: Není v ceně. (=Meals: Not included in the price.) Fig. 8.237
Cena za osobu Kč: 3 440. (=Price per person Kč: 3 440.)
(=the price per person in Crowns is 3,440 ) Fig. 8.238
Dítě Kč: 1 710. (=Child Kč: 1 710.) Fig. 8.239
Díté Kč: 7 700, do 5 let jen letenka za 5 500. (=Child Kč: 7,700, under 5 years flight only 5,500.) Fig. 8.240

Figure 8.235. Form

```
O
root
    ##Cobn.enunc
    t_PRED
    qcomplex
```



```
obrázek 1
c_ACT f_PAT
n.denot n.quant.def
inan.sg gender:nr.number:nr.basic
```

Figure: 1.
Figure 8.236. Form


Helsinky: polojasno 19 / 14. (=Helsinki: somewhat_cloudy 19 / 14.)

Figure 8.237. Form


Stravování: Není v ceně. (=Meals: Not_included in (the) price.)
Figure 8.238. Form


Cena za osobu Kč: 3 440. (=Price per person Kč: 3 440.)

Figure 8.239. Form


Dítě Kč: 1 710. (=Child Kč: 1710.$)$

Figure 8.240. Form


Dítě Kč: 7 700, do 5 let jen letenka za 5 500. (=Child Kč: 7,700, under 5 years only flight_ticket for 5,500.)

### 8.12.7. Lists

This section introduces rules and model trees for lists of the following type:

1) Praha
2) Bratislava
3) Brno
a) povinnosti (=responsibilities / duties)
b) práva (=rights)

The following applies to the annotation of these constructions:

- a node for the empty verb is inserted into the tectogrammatical tree ( t lemma=\#EmpVerb; functor=PRED).
- nodes representing numbers or letters identifying individual items in the list are assigned the functor PREC and are dependent on the empty verb node.
- a node representing an item in the list (or the effective root) is assigned the functor ACT and is dependent on the empty verb node.

Example and model tree:

1) Praha Fig. 8.241

Figure 8.241. List


1) Praha (=lit. 1) Prague)

### 8.12.8. Bibliographical data

Independent bibliographical data is represented according to the following rules:

- book, monograph:
- the effective root of the construction is a newly established node with the t-lemma substitute \# Idph and with the functor DENOM.
- the effective root of the title of the work is assigned the functor ID and is dependent on the newly established node with the t-lemma \# Idph.
- the nodes (effective roots) representing items which are components of the bibliographical data (author, publisher, year and place of publication) are also dependent on the newly established node with the t-lemma \#Idph.
- the node for the author of the work is assigned the functor AUTH. The nodes for the rest of the bibliographical data are represented with the functor RSTR.

Examples and model trees:
Němcová: Babička, Albatros, Praha, 1974. (=Němcová: Grandma, Albatros, Prague, 1974.) Fig. 8.242
J.Keller P.Mareš: Nezaměstnanost jako problém. (=J.Keller P.Mareš: The unemployment problem.)

## - article in a journal or anthology:

- the effective root of the construction is a newly established node with the representative t-lemma \# Idph and the functor DENOM.
- the effective root of the title of the article is assigned the functor ID and is dependent on the newly established node with the t-lemma \#Idph.
- All the remaining components of the bibliographical data (the author of the article and the anthology or journal containing the article quoted) are also dependent on the newly established node with the t-lemma \#Idph and with the functor DENOM.
- the node (effective root) representing the author of the work is dependent on the newly established node with the t-lemma \#Idph and is assigned the functor AUTH.
- the title of an anthology or journal is again represented by a newly created node with the tlemma \# Idph, which acquires the functor LOC (If it occurs, the word In is not represented in the tectogrammatical tree by any node (it is represented as a preposition; see Section 8.17, "Prepositions and subordinating conjunctions").
- the effective root of the title of a journal or anthology is assigned the functor ID and is dependent on the newly established node with the t-lemma \# Idph and the functor LOC.
- the nodes (effective roots) representing items which are components of the bibliographical data of an anthology or journal (editor, publisher, year and place of publication) are also dependent on the newly established node with the t-lemma \# Idph and the functor LOC.
- the node for the editor of an anthology is assigned the functor AUTH. The nodes for the rest of the bibliographical data are represented with the functor RSTR.

Example and model tree:
Svoboda, K.: O přistavku. In: Český jazyk. 6, 1956, 303-310. (=Svoboda, K.: On apposition. In: Český jazyk (=Czech Language), 6, 1956, 303-310.) Fig. 8.243

Where bibliographical data is incorporated in a clause, a distinction is made on the grounds of presence or absence of morphology. In appropriate (syntactically incorporated) cases, nodes for individual bibliographical data are assigned an appropriate functor according to their location in the tectogrammatical tree; nodes (effective roots) for data without morphology (nominative keywords) are represented as syntactically non-incorporated parenthesis (see Section 6.7, "Parenthesis").

Examples and model trees:
Vydalo nakladatelství Slon, Praha, 1994, 151 stran, náklad neuveden. (=Published by Slon, Praha, 1994, 151 pages, number of copies not stated.) Fig. 8.244

Vydalo nakladatelství Slon, v Praze, 1994, náklad neuveden. (=Published by Slon, Prague, 1994, number of copies not stated.) Fig. 8.245

Figure 8.242. Bibliographical data


Němcová: Babička, Albatros, Praha, 1974. (=lit. Němcová: Grandma, Albatros, Prague, 1974)
Figure 8.243. Bibliographical data


Svoboda, K.: O přistavku. In: Český jazyk. (=Czech Language.) 6, 1956, 303-310. (=lit. Svoboda, K.: On apposition. In: Český jazyk (=Czech Language), 6, 1956, 303-310.)

Figure 8.244. Bibliographical data


Vydalo nakladatelství Slon, Praha, 1994, 151 stran, náklad neuveden. (=lit. Published publishing_house Slon, Prague, 1994, 151 pages, number_of_copies not_stated.)

Figure 8.245. Bibliographical data


Vydalo nakladatelství Slon, v Praze, 1994, náklad neuveden. (=lit. Published publishing_house Slon, in Prague, 1994, number_of_copies not_stated.)

### 8.12.9. Headings, titles of articles and sections

Because of their considerable variety, the titles of newspaper articles (especially those containing a verbal clause) are not represented as titles (see Section 8.8, "Identifying expressions"), but they are annotated according to the rules for the annotation of verbal and non-verbal clauses (see Section 6.4, "Verbal and non-verbal clauses").

Examples and model trees:
Krátce. (=In brief) Fig. 8.246
Z politické scény. (=The political scene) Fig. 8.247
Trh s nemovitostmi očima realitních kancelář́ (5) (=The real estate market from the perspective of estate agents (US: realtors) (5)). Fig. 8.248

Morová rána: Skuhravý zraněn. (=Struck by the plague: Skuhravý is wounded.) Fig. 8.249
Štrasburk (od našeho zvláštního zpravodaje). (=Strasbourg (from our special correspondent)). Fig. 8.250

LN 3. 8. 1998 (=LN (abbreviation for Literární noviny, i.e. Literary Gazette) 3. 8. 1998) Fig. 8.251
Profit č. 8 / 1994. (=Profit, no. $8 / 1994$. ) Fig. 8.252

Jan Rybář, Praha. (=Jan Rybář, Prague.) Fig. 8.253
Abbreviations of authors of articles appearing in brackets at the beginning or end of the article are represented as syntactically non-incorporated parentheses (see Section 6.7, "Parenthesis").

Examples and model trees:
Praha (haš). (=Prague (haš).) Fig. 8.254
( $a v, c \check{c} t k) .(=(a v, c \check{c} t k)$.) Fig. 8.255
Figure 8.246. Headings, titles of articles and sections


Krátce. (=lit. In_brief.)

Figure 8.247. Headings, titles of articles and sections

```
O
root
\square
#EmpVerb.enunc
t_PRED
qcomplex
    |
    scéna
    f_DIR1.basic
    n.denot
    fem.sg
        b
        politický
        f_RSTR
        adj.denot
        pos.nego
```

Z politické scény. (=lit. From (the) political scene.)

Figure 8.248. Headings, titles of articles and sections


Trh s nemovitostmi očima realitnich kanceláří (5) (=lit. Market with real_estates with_eyes (of) estate agents (5)).

Figure 8.249. Headings, titles of articles and sections


Morová rána: Skuhravý zraněn. (=lit. Plague strike: Skuhravý wounded.)

Figure 8.250. Headings, titles of articles and sections


Štrasburk (od našeho zvláštniho zpravodaje). (=lit. Strasbourg (from our special correspondent).)

Figure 8.251. Headings, titles of articles and sections


LN 3. 8. 1998 (=lit. LN (abbreviation for Literární noviny, i.e. Literary Gazette) 3. 8. 1998)

Figure 8.252. Headings, titles of articles and sections


Profit č. 8 / 1994. (=lit. Profit no. 8 / 1994)

Figure 8.253. Headings, titles of articles and sections

```
O
```



```
Jan Rybář, Praha. (=lit. Jan Rybář, Prague.)
```

Figure 8.254. Headings, titles of articles and sections
O
$\vdots$
root
$\vdots$
Praha.enunc
f_DENOM
n.denot
fem.sg
$\vdots$
o
haš.enunc
f_PAR_P
n.denot
gender:nr.number:nr

Praha (haš). (=lit. Prague (haš).)

Figure 8.255. Headings, titles of articles and sections


### 8.12.10. Set expressions in journalism

The annotation of set expressions and other complex, syntactically atypical constructions in journalism is governed by the general rules for the annotation of verbal and non-verbal clauses (see Section 6.4, "Verbal and non-verbal clauses").

Examples and model trees:
Rozhodči: Ulrich. (=Referee: Ulrich.) Fig. 8.256
Foto: Robert Zlatohlávek - LN. (=Photo: Robert Zlatohlávek - LN.) Fig. 8.257
Foto Robert Zlatohlávek - LN. (=Photo Robert Zlatohlávek - LN.) Fig. 8.258
$\check{C} B$, kap. Do civilu!, hl. 10, odst. 18. (=$\check{C} B$, chap. Demob! Chap.10, para. 18.) Fig. 8.259

Figure 8.256. Set expressions in journalism


Rozhodči: Ulrich. (=lit. Referee: Ulrich)
Figure 8.257. Set expressions in journalism


Foto: Robert Zlatohlávek - LN. (=lit. Photo: Robert Zlatohlávek - LN.)

Figure 8.258. Set expressions in journalism
0
$\vdots$
root

\#EPRED

c PAT f ACT.
n.denot n.denot
neut.sg anim.sg $\begin{array}{ll}\text { person_name } & \\ 6 & \ddots\end{array}$
Robert LN.enunc
f_RSTR f_PAR_P
n.denot n.denot
anim.sg fem.pl
person_name

Foto Robert Zlatohlávek - LN. (=lit. Photo Robert Zlatohlávek - LN.)
Figure 8.259. Set expressions in journalism


ČB, kap. Do civilu!, hl. 10, odst. 18. (=ČB, chap. Demob! Chap.10, para. 18.)

### 8.12.11. Sports commentaries

The annotation of set expressions and other complex, syntactically atypical constructions in sports commentaries is governed by the general rules for the annotation of verbal and non-verbal clauses (see Section 6.4, "Verbal and non-verbal clauses").

### 8.12.11.1. Tables of sports results

The annotation of tables of sports results is governed by the rules for the annotation of tables set out here in Section 8.12.4, "Tables". In sports tables the option of inserting an empty verb node is applied more frequently (cf. for example: Fig. 8.260 to Fig. 8.263). In cases where the insertion of a verb would be too unnatural, the construction is analysed as nominative clauses which are co-ordinated or in apposition, whichever of these two semantic relationships more closely corresponds to the construction (cf. for example: Fig. 8.264).

NB! The node for a dash expressing the relationship between two fighting units (individuals or teams) is assigned the functor CONTRA (cf. for example: Fig. 8.260 and Fig. 8.261). The node for a dash between parts of one unit (e.g. team, couple) or a union of two or more units fighting together is assigned the functor CONJ (cf. for example: Fig. 8.262).

Examples and model trees:
Benešov-Ostrava 1:2. (=Benešov-Ostrava 1:2.) Fig. 8.260
Čátar - Fiala 7:6, 1:6, 6:4. (=Čátar - Fiala 7:6, 1:6, 6:4.) Fig. 8.261
1.Buchta-Soukup (Favorit Brno) 132, 2.Kolman-Tenor 121. (=1.Buchta-Soukup (Favorit Brno) 132, 2.Kolman-Tenor 121.) Fig. 8.262

Výsledky: 1. Nováček, 2.Vajda. (=Results: Nováček, 2.Vajda.) Fig. 8.263
Atletika, ženy: McGollová, družstva: Japonsko. (=Athletics, women: McGoll, teams: Japan) (The table shows the winners of various disciplines. If the order is not shown, they are treated as nominative clauses, paratactic or in apposition.) Fig. 8.264

Figure 8.260. Sports results tables


Benešov-Ostrava 1:2(=Benešov-Ostrava 1:2).
Figure 8.261. Sports results tables


Čátar - Fiala $7: 6,1: 6,6: 4 .(=$ Čátar - Fiala $7: 6,1: 6,6: 4$.

Figure 8.262. Sports results tables


1. Buchta - Soukup (Favorit Brno) 132, 2. Kolman - Tenor 121. (=1. Buchta - Soukup (Favorit Brno) 132, 2. Kolman - Tenor 121.)

Figure 8.263. Sports results tables


Výsledky: 1. Nováček, 2. Vajda. (=lit. Results: Nováček, 2. Vajda.)

Figure 8.264. Sports results tables


Atletika, ženy: McGollová, družstva: Japonsko. (=lit. Athletics, women: McGoll, teams: Japan)

### 8.12.11.2. Other complex constructions

Again, in other complex constructions, the possibility or impossibility of inserting an empty verb is the first consideration. If the construction cannot be interpreted as a verbal clause, the relationships between the individual expressions are represented as nominative clauses, paratactic or in apposition.

Examples and model trees:
28. kolo (16. 4): Ostrava-Olomouc misto v 16 až v 17 hodin. (=28th round (16. 4): Ostrava-Olomouc at 17.00 hrs , not 16.00 hrs ) Fig. 8.265

Anglická liga - 41. kolo: Ipswich - Manchester. (=English league - round 41: Ipswich - Manchester.) Fig. 8.266

Branky: 5. a 41. (=Goals: 5th and 41st (Goals scored in the 5th and 41st minutes)) Fig. 8.267
Nečas, 25. (=Nečas, 25th. (=Nečas scored a goal in the 25th minute)) Fig. 8.268
ŽK: Valenta. (=YC: Valenta (=Valenta was shown the yellow card)) Fig. 8.269
Slávia: Jánoš, Pěnička a Knofliček. (=Slávia: Jánoš, Pěnička and Knofliček.) Fig. 8.270
ME v závodech do vrchu - skupina N:1. (=ME in uphill race- group N:1.) Fig. 8.271

Figure 8.265. Sports commentaries

28. kolo (16. 4): Ostrava - Olomouc místo v 16 až v 17 hodin. (=lit. 28th round (16. 4): Ostrava Olomouc instead_of at 16.00 only at 17.00 hrs .)

Figure 8.266. Sports commentaries


Anglická liga - 41. kolo: Ipswich - Manchester. (=lit. English league - round 41: Ipswich Manchester.)

Figure 8.267. Sports commentaries


Branky: 5. a 41. (=lit. Goals: 5th and 41st.)

Figure 8.268. Sports commentaries


Nečas, 25. (=Nečas, 25.)
Figure 8.269. Sports commentaries


ŽK: Valenta. (=YC: Valenta)

Figure 8.270. Other complex constructions


Slávia: Jánoš, Pěnička a Knofliček. (=Slávia: Jánoš, Pěnička and Knofliček.)

Figure 8.271. Other complex constructions


ME v závodech do vrchu-skupina N: 1. (=lit. European_Championship race -uphill-group N: 1.)

### 8.13. Expressions of negation and affirmation

In this section annotation rules are described for expressions denoting syntactic negation and affirmation (see Section 6.13, "Modality and negation"), which are represented in the tectogrammatical trees by separate nodes. These are:

- the particles ano (=yes), ne (=no/not), nikoli (=no; not at all), nikoliv (=no; not at all) (possibly others, such as: jistě (=certainly), určitě (=definitely)),
- the prefix ne- in negative forms of a verb (represented by a separate node with the t-lemma substitute \#Neg).

These expressions may fulfil the following functions:

- a rhematizing function (see Section 8.13.1, "Negating and affirmative expressions as rhematizers"),
- the function of (an independent) non-verbal clause (see Section 8.13.2, "Negating and affirmative expressions as non-verbal clauses"),
- the function of an expression modifying a co-ordinating connective (see Section 8.13.3, "Negating expressions as conjunction modifiers"),
- the function of a (free or also a valency) modification of a verb, if they are used metalinguistically (see Section 8.13.4, "Negating and affirmative expressions used in a metalinguistic sense").


### 8.13.1. Negating and affirmative expressions as rhematizers

Negating and affirmative expressions are interpreted as rhematizers in two cases:

- negating expressions deny the validity of the content of the entire statement, or only part of it.

Negating expressions which deny the validity of the content of a statement (in its entirety or only partially), are represented as rhematizers, since the negating expression does not always apply to the whole clause including the governing predicate, and it may be the case that only part of the sentence is negated (rhematized).

NB! In such cases the syntactic negation morpheme (represented by a node with the t-lemma substitute \#Neg) is also interpreted as a rhematizer. This is a somewhat specific rhematizer, because at surface level it takes the form not of an independent lexeme, but of a morpheme attached to the verb, so that it cannot freely move in the sentence. However, the negating morpheme does not always apply to the whole clause either. Here, the scope of the rhematizer must be determined on the basis of the context.

The node representing the negating particle (ne (=no/not), nikoli/v (=no/not at all)) or the morpheme (ne- (=not; non-)) (the functor=RHEM) is placed in the tectogrammatical tree according to the basic rules for the location of the rhematizer (see Section 10.6.2, "Basic guidelines regarding the position of rhematizers in tectogrammatical trees").

## Cf.:

- Petr neparkoval na parkovišti. (=Peter did not park in the car-park) (Jel po silnici.) (=He was driving along the road)

The negation applies to the entire segment parkoval na parkovišti (=he parked in the car-park) including the governing predicate. The node representing the negation of the verb ( t _lemma $=\# \mathrm{Neg}$ ) will be represented as a rhematizer, as the extreme right left direct daughter node of the node representing the governing predicate parkovat (=to park). Cf. Fig. 8.272.

- Petr neparkoval na parkovišti. (=Peter did not park in the car-park) (Parkoval v garáži.) (=He parked in the garage)

The negation applies only to the place adjunct na parkovišti (=in the car-park). A node representing negation of a verb ( $t$ _lemma $=\# N e g$ ) will be represented as the nearest left sister node of the first node representing an expression which has a negating rhematizer in its range, i.e. as the left sister node of the node for the prepositional group na parkovišti (=in the car park).

- Petr parkoval ne na parkovišti. (=Peter did not park in the car park) (Parkoval v garázi.) (=(He parked in the garage))

Within the range of the negation there is only the place adjunct na parkovišti (=in the car park). The node representing the negating expression ( t _lemma $=n e$ ) will be represented as the nearest left sister node of the first node representing the expression which has a negating rhematizer within its range, i.e. as the left sister node of the node for the prepositional group na parkovišti (=in the car park).

- Karel nepsal milostné dopisy Kláre. (=Karel did not write / was not writing love letters to Klara.) (Misto toho šel ven.) (=(Instead, he went out.))

The complete segment psal milostné dopisy Kláre (=He wrote / was writing love letters to Klara), including the governing predicate is within the range of the syntactic negation. The node representing the negation of the verb ( $t \_l e m m a=\# N e g$ ) will be represented as the extreme
right left direct daughter node of the node representing the governing predicate $p$ sát (=to write). Cf. Fig. 8.273.

- Karel nepsal milostné dopisy Kláre. (=Karel did not write / was not writing love letters to Klara.) (Psal je Aleně.) (=He wrote / was writing them to Alena.)

Only the Addressee Klárée (=to Klara) is within the range of the syntactic negation (the governing predicate is not in range). The node representing negation of the verb ( t _lemma=\#Neg) will be represented as the nearest left sister node of the first node representing the expression which the negating rhematizer has in its range, i.e. as the left sister node of the node for the noun Klára (=Klara). Cf. Fig. 8.274.

- Karel nepsal milostné dopisy Kláre. (=Karel did not write / was not writing love letters to Klara.) (Psal referát do školy.) (=He was writing a report for the school.)

The complete segment milostné dopisy Kláre (=love letters to Klara) is within the range of the syntactic negation (no governing predicate is within range). The node representing negation of the verb ( $\mathrm{t} \_$lemma=\#Neg) will be represented as the nearest left sister node of the first node representing the expression which the negating rhematizer has within its range, i.e. as a left sister node of the node for the noun dopisy. Cf. Fig. 8.275.

- Karel nepsal milostné dopisy Kláře. (=Karel did not write / was not writing love letters to Klara.) (Jenom obchodní.) (=Only business ones.)

Only the attribute milostne (=love) is within the range of the syntactic negation (there is no governing predicate within range). The node representing negation of the verb ( t _lemma=\#Neg) will be represented as the nearest left sister node of the first node representing the expression which the negating rhematizer has within its range, i.e. as a left sister node of the node for the adjective milostné (=love). Cf. Fig. 8.276.
!!! At present the positioning of the negating rhematizer in constructions with non-finite verb forms of the type Rozhodl jsem se ten plot nepostavit (=I decided not to build that fence) is unclear.

- negating or affirmative expressions (only the particle ne (=no/not), nikoli/v (=not / by no means) or ano (=yes)) represent an elided verb at surface level, expressing its positive or negative meaning.

If a negating or affirmative expression represents an elided verb in its positive or negative meaning, this expression is understood as a rhematizer which is the most dynamic expression in the given verb group (phrase); if the governing verb of the verb group is also the governing verb of the sentence (it is represented as the effective root of the tectogrammatical tree), the negating or affirmative expression is the focus proper of the sentence.

When adding a new node for an elided verb, we are in principle guided by the rules in Section 6.12.1.1, "Ellipsis of the governing verb"; in the case of an ellipsis which transcends a single sentence, we give precedence over copying of the node (the present ellipsis) to the addition of a node with the t-lemma substitute \#EmpVerb, which here represents the general meaning of the "validity / non-validity of the event" (grammatical ellipsis).

The node representing the particle ne (=no /not), nikoli/v (=not/by no means) or ano (=yes) (the functor=RHEM) has the value $f$ entered in the attribute $t f a$ and it is the extreme right direct daughter node of the inserted node for the verb.

Cf:

- Petr přišel, ale Karel ne. (=Peter came, but Charles did not.)
$=$ Petr přišel, ale Karel nepřišel. (=Peter came, but Charles did not come.)

The node representing the negating expression ne ( $=$ no / not) will be represented as a rhematizer in the focus proper, i.e. as a node lying on the extreme right-hand path in the tectogrammatical tree. Cf. Fig. 8.277.

- Petr nepřišel, ale Karel ano. (=Peter did not come, but Charles did.)
= Petr nepřišel, ale Karel přišel. (=Peter did not come, but Charles came.)

The node representing the affirmative expression ano ( $=$ yes) will be represented as a rhematizer in the focus proper, i.e. as a node lying on the extreme right-hand path in the tectogrammatical tree. Cf. Fig. 8.278.

- (Napsal to Jirka?) (=(Did George write it?)) Pokud ano, pošli mi to. (=If so, send it to me.)
= Pokud platí ano/ pokud se tak stalo, pošli mi to. (=If the answer is yes / if that is what happened, send it to me.)

The node representing the affirmative expression ano (=yes) will be represented as a rhematizer which will be the right-hand (extreme right-hand) direct daughter node of the inserted node for the verb. Cf. Fig. 8.279.

Further examples:
Jirka mi napsal, ale Honza \{psát $\}$ ne.RHEM (=George wrote to me, but John did not.)
Hanka nepřišla pozdě, ale Jitka \{ přijit (=to come / arrive)\} ano.RHEM (=Hana did not arrive late, but Jitka did.)
(Přijdeš zitra na přednášku?) (=Will you come to the lecture tomorrow?) Určitě ano.RHEM \{\#EmpVerb\} (=I will, definitely.)

NB! We distinguish constituent and clause co-ordination according to the syntactical position of the negating or affirmative particle (see Section 6.6.1.2, "Parataxis of sentence parts, parataxis of clauses and mixed parataxis"):

- Nekoupil chleba, ale máslo \{koupit (=to buy)\} ano.RHEM (=He did not buy bread, but he did buy butter.)

Clause co-ordination.

- Koupil chleba, ale máslo \{koupit (=to buy)\} ne.RHEM (=He bought bread, but not butter.)

Clause co-ordination.

- Koupil chleba, ale ne.CM máslo. (=He bought bread, but not butter.)

Constituent co-ordination. If the negating particle follows the connective between co-ordinated modifications, the co-ordination is represented as constituent co-ordination and the negating expression as a conjunction modifier. On this, see Section 8.13.3, "Negating expressions as conjunction modifiers".

On the borderline between the rhematizer and the conjunction modifier in negating expressions, see Section 8.13.3, "Negating expressions as conjunction modifiers".

Further rules (where the value of the attribute $t f a$ and the position of the rhematizers in the tectogrammatical tree are involved) see Section 10.6, "Rhematizers".

Figure 8.272. Negating morpheme as rhematizer


Petr neparkoval na parkovišti. (=lit. Peter did_not_park in the_car_park.) (Jel po silnici.) (=He was driving on the road.).

Figure 8.273. Negating morpheme as rhematizer


Karel nepsal milostné dopisy Kláré. (=lit. Charles did_not_write love letters to_Klara.) (Misto toho šel ven.) (=Instead, he went out.)

Figure 8.274. Negating morpheme as rhematizer


Karel nepsal milostné dopisy Kláře. (=lit. Charles did _not_write love letters to_Klara.) (Psal je Aleně.) (=He wrote them to Alena.)

Figure 8.275. Negating morpheme as rhematizer


Karel nepsal milostné dopisy Kláře. (=lit. Charles did_not_write love letters to_Klara.) (Psal referát do školy.) (=He wrote / was writing a report for the school.)

Figure 8.276. Negating morpheme as rhematizer


Karel nepsal milostné dopisy Kláře. (=lit. Charles did_not_write love letters to_Klara.) (Jenom obchodní.) (=Only business ones.)

Figure 8.277. Negating particle as rhematizer


Petr přišel, ale Karel ne. (=lit. Peter came, but Charles not.)

Figure 8.278. Affirmative particle as rhematizer


Petr nepřišel, ale Karel ano. (=lit. Peter did_not_come, but Charles yes.)
Figure 8.279. Affirmative particle as rhematizer

(Napsal to Jirka?) (=(Did George write it?)) Pokud ano, pošli mi to. (=If yes, send me it.)

### 8.13.2. Negating and affirmative expressions as nonverbal clauses

The negating and affirmative particles (ano (=yes), ne (=no / not), nikoli/v (=no / by no means) ) may also have an independent declarative function; they may form a non-verbal clause, in two ways:

- they express independently a positive or a negative meaning.

A self-standing negating or affirmative particle is represented as a non-verbal interjectional clause - the effective root of the clause (the node representing the particle) has the functor PARTL.

Examples:
(Přijdete?) (=(Will you come?)) Ano.PARTL (=Yes) Fig. 8.280
(Přijdete?) (=(Will you come?)) Nikoliv.PARTL (=Certainly not / No)

- they emphasise the positive or negative meaning of the expressed verb and of the entire following verbal clause (the verbal clause is also syntactically (and semantically) complete without this particle).

If the negating or affirmative particle is not part of the syntactic structure and forms an independent non-verbal clause, this particle is represented as a node with the functor PARTL, which is a direct daughter node of the root of the verb clause (according to the rules in Section 6.4, "Verbal and non-verbal clauses").

Examples:
(Přijdete?) (=(Will you come?)) Ano.PARTL , přijdeme (=Yes, we will come). Fig. 8.281
(Přijdete?) (=(Will you come?)) Ne.PARTL , nepřijdeme (=No, we will not come).
Ano. PARTL , to uděláme (=Yes, we will do it).
Ne.PARTL , to je naprostý nesmysl (=No, that is utter nonsense).
(Přijdeš?) (=(Will you come?)) $\underline{\text { Nikoliv.PARTL , tam mě nikdo nedostane (=No, nobody will get }}$ me there).

NB! As a node with the functor PARTL, which is a direct daughter node of the root of the verbal clause, cases are also represented where the negating or affirmative particle represents direct speech. On this see also Section 8.3, "Direct speech".

Examples:
Odpověděl: " Nikoliv.PARTL ." \{ \#EmpVerb.EFF\} (=He replied: No) Fig. 8.282

On the borderline between expressions used in a metalinguistic sense and direct speech see Section 8.3.3, "Borderline cases between direct speech and meta-usage".

Rules for annotation of verbal and non-verbal clauses see Section 6.4, "Verbal and non-verbal clauses".

Figure 8.280. The affirmative particle as a non-verbal clause

```
O
root
O
ano.enunc
f_PARTL
atom
```

Ano. (=lit. Yes.)
Figure 8.281. The affirmative particle as a non-verbal clause


[^1]Figure 8.282. The negating particle as a non-verbal clause


Odpověděl: "Nikoliv." (=lit. (He) replied: "No")

### 8.13.3. Negating expressions as conjunction modifiers

Negating expressions may also act as conjunction modifiers (see Section 8.16.1.2, "Conjunction modifiers"). Both the negating particles (ne (=no /not), nikoli (=by no means / not), nikoliv (=by no means / not) ) and the negating morpheme ne- (=non-/ un-) ( t _lemma=\#Neg) can be conjunction modifiers.

A negating expression is a conjunction modifier in such paratactic connections in which the connective can be used only when one of the constituents of the paratactic connection has a negative form. Cf.:

- Nepřišel Karel, ale Pavel. (=It was not Charles who came, but Paul.)
- Přišel Karel, ale ne Pavel. (=Charles came, but not Paul.)
- But one cannot say: *Přišel Karel, ale Pavel. (=*Charles came, but Paul.)

It is usually a case of an adversative paratactic connection (functor ADVS), but it may also be a negative variant of a comparative relation (GRAD) or a disjunctive relation (DISJ); for example:

## Nepríšel jen Karel, ale.GRAD i Pavel. (=Not only Charles came, but Paul as well.)

The node representing a negating expression in the function of a conjunction modifier has the functor CM and is represented according to the rules in Section 8.16.1, "Co-ordinating connectives".

The boundary between the rhematizer and the conjunction modifier in negating expressions. A negating expression coocurring at surface level with a constituent coordination (usually adversative) is evaluated as a conjunction modifier. A constituent coordination acts in terms of functional sentence perspective as a unit (see Section 10.4.3.2.1, "Topic-focus articulation of paratactically connected dependent modifications and clauses"), so that a boundary between the topic and the focus cannot pass through it, and the negating expression (particle or morpheme) does not signal the focus (does not have a rhematizing function), but merely modifies the paratactic connection. Cf.:

- Bude mít velký dům, ale.ADVS ne.CM nové auto. (=He / she will have a large house but not a new car.)

Constituent co-ordination. The negating particle will be represented as a conjunction modifier. Cf. Fig. 8.283.

- \{\#Neg.CM\} Nepřišel Jirka, ale.ADVS Karel. (=It was not George who came, but Charles.)

Constituent co-ordination. The negating morpheme will be represented as a conjunction modifier.

- Z politiky jsem si přinesla fakta, ne.CM teorie. \{ \#Comma.ADVS \} (=Politics gave me facts, not theories.)

Constituent co-ordination. The negating particle will be represented as a conjunction modifier (here, it modifies the comma).

Further examples:
\{\#Neg.CM\} Nekoupil chleba, ale.ADVS máslo. (=He did not buy bread, but butter.)
Koupil chleba, ale.ADVS ne.CM máslo. (=He bought bread, but not butter.)
\{\#Neg.CM\} Vlak neodjel ve čtyři hodiny, ale.ADVS v pět. (=The train departed not at four o'clock but at five.)
\{\#Neg.CM\} Chruščov nebyl pohřben u kremelské zdi, ale.ADVS zde. (=Khrushchov was not buried by the walls of the Kremlin but here.)
\{\#Neg.CM\} Nejde o sobotu, ale.ADVS o neděli. (=It does not mean Saturday but Sunday.)
Přijel do Prahy, nikoli.CM do Brna. (=He came to Prague and not to Brno.)
In clausal co-ordination, a negation becomes a conjunction modifier only in cases where the expressions nejen ( $=$ not only), nejenom ( $=$ not only) are divided into a negating expression and a restrictor jen (=only), jenom (=only), pouze (=only). In other cases of clausal co-ordination the scope of negation in individual sentences may vary (here, negation has a rhematizing function). Cf :

- \{\#Neg.CM\} Nepřišli jsme jen.CM stavět domy, ale.GRAD také.CM budeme rozšiřovat ulice. (=We have not come just to build houses but we will also widen the streets.)

Clausal co-ordination. The negating morpheme will be represented as a conjunction modifier; here we have the separation of the expression nejen (=not only) into a negating morpheme and a restrictor jen (=only). Cf. Fig. 8.284.

- \{\#Neg.CM\} Nepřišel jen.CM Karel, ale.GRAD přišel i Pavel. (=Not only Charles came but Paul came as well.)

Clausal co-ordination. The negating morpheme will be represented a conjunction modifier; here we have separation of the expression nejen (=not only) into a negating morpheme and a restrictor jen ( $=$ only).

- \{\#Neg.CM\} Naším zájmem není jen.CM stavět domy, ale.GRADtaké.CM zřizovat dětská hřiště. (=Our concern is not only to build houses but also to set up children's playgrounds.)

Clausal co-ordination (between the infinitives stavět (=to build) and zřizovat (=to set up)). The negating morpheme will be represented a conjunction modifier; here we have separation of the expression nejen (=not only) into a negating morpheme and a restrictor jen (=only).

Figure 8.283. The negating particle as a conjunction modifier


Bude mit velký dům, ale ne nové auto. (=lit. (He/she) will_have (a) large house, but not (a) new car.)

Figure 8.284. The negating morpheme as a conjunction modifier


Nepřišli jsme jen stavět domy, ale také budeme rozšiřovat ulice. (=lit. (We) have_not_come AUX only to_build houses but also we_will widen (the) streets.)

NB! In the case of constituent co-ordination with the conjunction ani (=neither/nor) negation is demanded by both co-ordinated elements - two elements are conjoined which are both negated - here, the negating morpheme has a rhematizing function. The node representing syntactic negation ( t _lemma=\#Neg) is the left sister of the root of the co-ordinated structure and it has the functor RHEM. The entire coordination is then within the scope of the rhematizer. (For detailed rules see Section 10.6.4.1, "Rhematizers in paratactic structures"). Cf.:

- \{\#Neg.RHEM\} Nebyl tam Petr ani.CONJ Pavel. (=Peter was not there, nor was Paul.)

Constituent co-ordination (simple conjunction, with the conjunction ani (=nor / neither)). The negating morpheme will be represented as a rhematizer whose scope is the entire constituent coordination. Cf. Fig. 8.285.

Figure 8.285. The negating morpheme as rhematizer


Nebyl tam Petr ani Pavel. (=lit. Was_not there Peter nor Paul.)

### 8.13.4. Negating and affirmative expressions used in a metalinguistic sense

The negating and affirmative particles (ano (=yes), ne (=no / not), nikoli/v (=no / by no means)) may take the role of argument or adjunct, if they are used in a metalinguistic sense. In these roles they are represented according to the rules for annotation of the identifying expressions described in Section 8.8, "Identifying expressions". A negating or affirmative particle used in a metalinguistic sense is always represented as an identification structure (see Section 8.8.1.3, "Identification structure"): The node representing a negating or affirmative particle has the functor ID.

On the boundary between expressions used in a metalinguistic sense and direct speech see Section 8.3.3, "Borderline cases between direct speech and meta-usage".

Examples:
O jeho \{\#Idph.PAT\} ano.ID si myslím, že nebylo přesvědčivé. (=Regarding his yes, I think it was not convincing.) Fig. 8.286

Slovo ano. ID zaznělo jen jednou. (=The word yes was heard only once.)
Jeho \{\#Idph.ACT\} ano.ID zaznělo jednoznačně. (=His yes sounded categorical.)
Své \{\#Idph.PAT\} ano.ID si řekli na Staroměstské radnici.(=They said their yes at the Old Town Hall.)

Figure 8.286. Affirmative particle used in a metalinguistic sense


O jeho ano si myslím, že nebylo přesvědčivé. (=lit. About his yes REFL (I) think that (it) was_not convincing.)

### 8.14. The expressions "se" and "si"

This section summarises the rules for the annotation of the expressions se (=self/ one another) and si (=self/ one another) expressed at surface level. The expressions se (=self/ one another) and si (=self / one another) can have various meanings in the sentence and their annotation varies accordingly.

We distinguish:

## A. the expressions "se" and "si" as components of verbs..

The expressions se (=self / one another) and si (=self/one another) are components of verbs:
a. in the case of reflexive verbs (reflexiva tantum).

The expressions se (=self / one another) and si (=self / one another) are unmotivated components of the verb. The verbs cannot be used without these expressions.

Examples: bát se (=to fear), usmát se (=to laugh), snažit se (=to try), stěžovat si (=to complain).
b. in inherently reciprocal verbs.

With inherently reciprocal verbs a degree of active involvement in an action by a second argument can always be assumed. Here, the verbs cannot be used otherwise than with the expression se, si. On inherently reciprocal verbs see also Section 6.2.4.2, "Reciprocity".

Examples: setkat se (=to meet), hádat se (=to argue), prát se (=to fight).
c. with inherently reflexive verbs.

In the given meaning an external originator of the action cannot be imagined; the verbs express involuntary action performed towards oneself. The verbs can be used without the expressions $s e$ or $s i$, but then they do not signify involuntary action. Cf.:

- Vlny se šíří prostorem. (=The waves are disseminated through space.)

Rozhlas šiří vlny prostorem. (=The radio station disseminates waves through space.)
Examples:
Spadl do vody a utopil se. (=He fell into the water and drowned.)
Větev se zlomila. (=The branch broke.)
Pytel se roztrhl. (=The bag split.)
Vlny se šiř̌í prostorem. (=Waves spread through space.)
Celý rok se trápil. (=He suffered all year.)

## d. expressions "se" and "si" contributing to the formation of certain Aktionsart .

The expressions se (=self/ one another) and si (=self/ one another) are often used in conjunction with other means (prefixes) to form certain specific meanings of verbs.

Examples: natahat se (=to become exhausted), napracovat se (=to work hard), zalyžovat si (=to have a ski), zatančit si (=to have a dance), zaposlouchat se (=to listen intently), dočist se (=to (find out by) read(ing)), rozepsat se (=to get writing), upit se (=to drink oneself to death), vyběhat se (=to become worn out), pospat si (=to take a nap).

Annotation. The expressions se and si which are components of verbs are represented as parts of the $t$-lemmas of those verbs. The t-lemma of these verbs is complex and the expression se or $s i$ is joined to the t-lemma by an underscore character. See Section 4.3.1, "Multi-word t-lemma". A reference to the analytical node representing se or si expressed at surface level is introduced in the attribute a/aux.rf (see Section 2.1, "Relation between the tectogrammatical level and the lower levels").

## B. expression "se" as a formal means of expressing the reflexive passive.

Examples:
Přirozený jazyk se popisuje formálnimi prostředky. (=Natural language is described by formal means.)

Tancovalo se až do rána. (=Dancing went on until morning)
Diskutovalo se o novém objevu. (=The new discovery was discussed.)
Annotation. The basic rule for annotation of sentences with reflexive passives is to add a node for the general Actor. A new node with the t-lemma \#Gen and with the functor ACT is added to the tectogrammatical tree. There is no reference leading to the analytical node representing se expressed at surface level from the tectogrammatical tree (see Section 2.1, "Relation between the tectogrammatical level and the lower levels").
C. the expression "se" as a formal means for the expression of dispositional modality.

Dispositional modality is described in Section 5.5.11, "The di spmod grammateme (dispositional modality)".

Examples:

Matematika se mu studuje dobře. (=He takes well to studying mathematics)
$V$ téhle troubě se mi dobře peče. (=I can bake well in this oven.)
Annotation. Dispositional modality is represented by the value disp1 in the grammateme dispmod in the node representing the governing verb of the clause. There is no reference leading to the analytical node representing se expressed at surface level from the tectogrammatical tree (see Section 2.1, "Relation between the tectogrammatical level and the lower levels").
D. the expressions "se" and "si" as a formal means for the expression of reciprocity.

In verbs governing the accusative the reciprocal relation at surface level is regularly signalled by the expression se. Cf.:

- Petr potkal Pavla. (=Peter met Paul.)

Petr a Pavel se potkali. (=Peter and Paul met.)
On this, see also Section 6.2.4.2, "Reciprocity".
Annotation. The basic rule for the annotation of sentences with a reciprocal relation is to establish a new node with the t-lemma \#Rcp. A reference to the analytical node representing se expressed at surface level is incorporated in this newly established node in the attribute a/lex.rf (sometimes also a/aux.rf) (see Section 2.1, "Relation between the tectogrammatical level and the lower levels").
E. the expression "se" as the formal consequence of expressing the Patient by means of the prepositional phrase " $s+7$ ".

In verbs where the accusative and the prepositional phrase $s+7$ compete for the expression of the Patient (or Addressee) (i.e. in transitive verbs), the surface level se is considered the formal consequence of the expression of the Patient by the prepositional phrase $s+7$. Cf.:

- Petr potkal Pavla. (=Peter met Paul.)
Petr se potkal s Pavlem. (=Peter met Paul.)

On this, see also Section 6.2.4.2, "Reciprocity".
Annotation. A reference to the analytical node representing se expressed at surface level (and also to the preposition $s$ (=with)) is introduced in the attribute a/aux.rf at the node representing the prepositional phrase $s+7$. See Section 2.1, "Relation between the tectogrammatical level and the lower levels".
F. the expressions "se" and "si" as modifications.

The expressions se (=self / one another) and si (=self/ one another) may also be modifications of the governing event in the sentence (verb, noun, adjective). They express reflexivisation of the event. They express the fact that the (nearest) subject of the event directs the event towards itself, that the event is performed to the dis/advantage of that subject.

## Examples:

Nakreslil se . (=He sketched himself.)
Viděl se v zrcadle. (=He saw himself in the mirror.)
Zaměruje se jen na sebe . (=He /She focuses only on himself /herself.)
Oholil se. (=He shaved (himself).)

## Koupil si auto. (=He bought himself a car.)


#### Abstract

Annotation. The expressions se (=self / one another) and si (=self / one another) which are modifications, are represented in the tectogrammatical tree by separate nodes with the t-lemma substitute \#PersPron. In the attribute a/lex.rf (or a/aux.rf) at this node a reference is incorporated to the analytical node representing the expression se or si expressed at surface level (see Section 2.1, "Relation between the tectogrammatical level and the lower levels").


!!! Between the respective types there exist broad transitional zones. In future, therefore, more precise distinguishing criteria will be required.

### 8.15. Abbreviations

!!! Rules for the annotation of abbreviations have yet to be formed. In the current version PDT 2.0 abbreviations are not consistently annotated, particularly in respect of the form of the $t$-lemma (full and abbreviated) and the number of nodes and their structure.

For annotation of abbreviations only the following limited rules have been adopted:

- if the abbreviation is incorporated in the sentence as a syntactic component, its effective root node is assigned an appropriate functor according to its position in the sentence structure. If the abbreviation cannot be incorporated in the sentence as a syntactic component, it is represented as being in parenthesis.
- on rules for the annotation of a construction in which an abbreviation is followed by the full form it stands for in brackets (or not, as the case may be) see Section 6.7.1, "Parenthesis proper".
- on rules for the annotation of the abbreviations aj. (=etc.); apod. (=etc.); atd. (=etc.) see Section 6.6.2.1.1, "Coordination with "atd.", "apod.", "aj."".
- on the abbreviation $m j$. (=inter alia) see Section 8.6.2, "The meaning of "exceptional conjoining'"'.

The individual components of certain abbreviations (s.r.o. (=ltd.); a.s. (=joint stock co.); hl.m. (=capital city); pozn. red. (=editor's note)) are represented by separate nodes and are structurally analysed; for example the abbreviation s.r.o. (=ltd.) is represented by three nodes. One node represents abbreviations such as USA (=USA); ODS (=ODS (name of a political party)); čtk (=CTK (Czech Press Agency)), atd. (=etc.); apod. (=etc.).

The t-lemma adopts the full or the abbreviated form. The t-lemma has been amalgamated in only three cases:

- tzv. (=so-called); tak zvaný (=so-called) and takzvaný (=so-called) $\rightarrow$ representative t-lemma: takzvaný (=so-called);
- tzn. (=i.e.); to znamená (=that means) $\rightarrow$ to_znamená (=that_means);
- tj (=i.e.).; to jest $(=$ that is) $\rightarrow$ to_jest (=that_is).

For more on the representative t-lemma see Chapter 4, Tectogrammatical lemma (t-lemma).

### 8.16. Co-ordinating connectives and operators

This section describes:

- co-ordinating connectives for co-ordination and apposition (see Section 8.16.1, "Co-ordinating connectives").
- connectives for representing mathematical operations and intervals - operators (see Section 8.16.2, "Operators").

For lists of co-ordinating connectives and operators see Appendix 2, Coordinating connectives and operators.

On rules for the annotation of paratactic structures see Section 6.6, "Parataxis".

### 8.16.1. Co-ordinating connectives

For each connective it is determined, on the basis of formal and semantic criteria, whether it is a coordinating or a subordinating connective.

Co-ordinating conjunctions are the core of co-ordinating connectives.
The semantics of conjunctions is extremely abstract, because conjunctions frequently combine with other expressions, particularly adverbs and particles. This concretises and modifies the sematics of conjunctions. Combinations of co-ordinating conjunctions with other words give rise to complex coordinating connectives (a nebo také (=or also)). Complex co-ordinating connectives are therefore interpreted as an amalgamation of two types of expression:

- one or more conjunctions. Conjunctions include punctuation (particularly the comma) if it links clauses independently or combines with an expression other than a conjunction.
- modifying expressions (conjunction modifiers), i.e. non-conjunctions, most frequently particles and adverbs, which help to express the semantic specification of a co-ordinating or appositional relation between clauses or parts of them.

A co-ordinating connective usually contains at least one conjunction. Conjunction modifiers are not always found in a co-ordinating connective, but more than one conjunction modifier is frequently present.

When representing co-ordinating connectives in the tectogrammatical tree the conjunction must be distinguished from the conjunction modifier in the co-ordinating connective. A complex co-ordinating connective is represented by at least two nodes: a node for the conjunction and a node for the conjunction modifier. Cf.:

The co-ordinating connective comprises the conjunction $a(=a n d)$ and the conjunction modifier navic (=to boot). This complex connective is represented in the tectogrammatical tree by two nodes: the node representing the conjunction $a(=a n d)$ represents the root node of the co-ordinating structure (on this see also Section 8.16.1.1, "Co-ordinating conjunctions"); the node representing the conjunction modifier navic ( $=$ to boot) is a direct daughter node of the root node of the co-ordinating structure and it is assigned the functor CM (on this see also Section 8.16.1.2, "Conjunction modifiers"). Cf. Fig. 8.287.
!!! Between the co-ordinating conjunctions, between conjunction modifiers and between entire complex co-ordinating connectives relationships of synonymy are found. In PDT, synonymy between co-ordinating conjunctions has so far been resolved only to a very limited extent (by means of a representative t-lemma; see Section 8.16.1.1, "Co-ordinating conjunctions") . Conjunction modifiers are interpreted as a component of the co-ordinating connective, and, merely for reasons of unresolved synonymy in co-ordinating expressions, they are currently represented by independent nodes in the tectogrammatical tree.

Functions of co-ordinating connectives. In co-ordinating connectives two functions are distinguished:
a. the co-ordinating connective links two or more modifications or clauses in a relationship of coordination or apposition.

Example:

S hojící se sliznicí a s růstem obnovujicich se střevnich klků vlivem bezlepkové diety se zlepšuje i funkční schopnost sliznice a pacient může přijímat mléko a sladit řepným cukrem. (=As the mucous membrane recovers and as the recovering villi in the intestine grow under the gluten-free diet, the functionality of the mucous membrane also improves and the patient can take milk and beet sugar.)
b. a co-ordinating connective indicates that the clause relates to a preceding context.

Example:
(Velmi míný růst spotřebitelských cen, jaký je dnes for example v Německu, není výsledkem politické vůle, nýbrž zdravě fungujícich podniků i celé ekonomiky.) (=(A very mild growth of consumer prices, such as found today for example in Germany, is not a result of political will, but of a healthy performance of companies and of the economy as a whole.)) $\underline{A}$ to zatím není nás prípad. (=And that is not the case with us so far.)

Figure 8.287. Complex co-ordinating connective


Dostavil se jediný člověk, a navíc nespecialista. (=lit. Turned_up REFL only_one person, and to_boot (a) layman)

### 8.16.1.1. Co-ordinating conjunctions

The core of (complex) co-ordinating connectives is formed by co-ordinating conjunctions. A combination of conjunctions gives rise to conjunction pairs (bud' - nebo (=either -or)) and complex conjunctions (a nebo ( $=o r$ ) ).

A co-ordinating conjunction (a simple conjunction, a complex conjunction and conjunction pairs) is always represented in the tectogrammatical tree by a single node. According to the function of the coordinating connective (of which the conjunction is a component) the node representing the conjunction is:

- the root node of the paratactic structure (nodetype=coap).

The root node of a paratactic structure is the node representing the conjunction where the co-ordinating connective (of which the conjunction is a component) links two (or more) modifications or clauses in a relationship of co-ordination or apposition.

The root node of the paratactic structure is always allocated one of the functors describing the semantic nature of the paratactic connection (see Section 7.12, "Functors expressing the relations between the members of paratactic structures").

- an atomic node with the functor PREC (nodetype=atom).

An atomic node with the functor PREC (dependent on the effective root node of the attached clause) is a node representing a conjunction where the co-ordinating connective (of which the conjunction is a component) indicates that the clause relates to a preceding context (see also Section 7.7.4, "PREC").

Representative t-lemma. The respective co-ordinating conjunctions are realised at surface level in certain cases by various formal variants (bud' nebo (=either or), bud'to nebo (=either or)). One representative variant is always selected for these different formal variants, and it is entered as the t-lemma of the node representing the conjunction in the tectogrammatical tree. In the case of a complex conjunction or of conjunction pairs, the respective components of the conjunction are linked in the $t$-lemma by an underscore character (bud'_nebo (=either_or); see also the section on multi-word t-lemmas -Section 4.3, "T-lemmas of multi-word (complex) lexical units").

Cf:

- Mezi smysly patří zrak $\underline{a}$ sluch $\underline{a}$ hmat $\underline{a}$ čich. (=The senses include sight and hearing and touch and smell.)

Repetition of the conjunctions $a-a-a(=a n d-a n d-a n d)$ is represented in the tectogrammatical tree by a node with the t-lemma $a$.

- Ve Slavii jsou bud'to mladí hráči, anebo ti, kteří dostávají přiležitost sporadicky. (In Slavia there are either young players or those who get the opportunity occasionally.)

The conjunction pairs bud'to - anebo (=either - or) are represented in the tectogrammatical tree by the t-lemma bud'_nebo (=either_or).

The rule is that the representative conjunction must be capable of performing all the functions (functors) of the respective variants of the conjunction it represents. The reverse does not necessarily apply. A conjunction represented in the tectogrammatical tree by a t-lemma does not necessarily possess all the meanings of its representative conjunction. For example the conjunction $a(=a n d$ ) (having the meanings of the functors CONJ, ADVS, GRAD, OPER etc.) is representative of the repeated conjunction $a-a$ ( $=$ and - and ), which possesses only one of its meanings - CONJ.

In this phase of the annotation conjunctions are brought together under one representative $t$-lemma, primarily according to the formal similarity (of the expression). The conjunctions ale (=but) and však (=however), formally distinct (as expressions), are not brought together under a single representative t -lemma, even though they have the same meaning.

A co-ordinating conjunction vs. a conjunction modifier. An expression is either a conjunction or a (conjunction) modifier. Only the two expressions $i$ (=and also / even) and ani (=nor / neither) may have the property of a conjunction and also of a conjunction modifier. They are conjunction modifiers when they follow another conjunction in a sentence. Cf.:

- tatínek $\underline{i}$ maminka (=daddy and mummy)

The expression $i$ (=and also) is a conjunction; the node representing this expression is represented in the tectogrammatical tree as the root node of the paratactic structure and has the functor CONJ.

- tatínek a i i maminka (=daddy and mummy as well)

The expression $i(=$ and also) is a conjunction modifier; the node representing this expression will be represented in the tectogrammatical tree as a direct daughter node of the root node of the paratactic construction (the node for the conjunction $a(=a n d)$ ) will have the functor CM.

- není tu tatinek ani maminka (=neither daddy nor mummy is here)

The expression ani (=nor / neither) is a conjunction; the node representing this expression is represented in the tectogrammatical tree as the root node of the paratactic structure and has the functor CONJ.

- není tu tatínek a ani maminka (=neither daddy nor mummy is here)

The expression ani (=nor / neither) is a conjunction modifier; the node representing this expression will be represented in the tectogrammatical tree as the direct daughter node of the root node of the paratactic structure (the node for the conjunction $a(=a n d)$ ) will have the functor CM.

Punctuation as a co-ordinating conjunction. Punctuation (particularly the comma) is included under co-ordinating conjunctions if the clauses are linked asyndetically, or if they combine only with the conjunction modifier. Cf.:

- Byl tu premiér, předsedové stran, někteří ministři. (=The prime minister was here, the party chairmen, certain ministers.)

The node representing the comma will be represented as the root node of the paratactic structure ( $t$ _lemma=\#Comma).

- Byl tu premiér, předsedové stran, dále někteří ministři. (=The prime minister was here, the party chairmen, additionally certain ministers.)

The node representing the comma will be represented as the root node of the paratactic structure ( $t$ _lemma=\#Comma). The node representing the conjunction modifier dále ( $=$ additionally) will be represented as an atomic node with the functor CM , which will be a direct daughter node of the root node of the paratactic structure.

- Neměl čas, a proto nepřišel. (=He did not have time and that is why he did not come.)

The node representing the conjunction $a(=a n d)$ will be represented as the root node of the paratactic structure. The node representing the conjunction modifier proto (=for that reason) will be represented as an atomic node with the functor CM , which will be a direct daughter node of the root node of the paratactic structure.

- Nemĕl čas, proto nepřišel. (=He did not have time and that is why he did not come.)

The node representing the comma ( $t$ _lemma=\#Comma) will be represented as the root node of the paratactic structure. The node representing the conjunction modifier proto (=for that reason) will be represented as an atomic node with the functor CM , which will be a direct daughter node of the root node of the paratactic structure.
"Non-co-ordinating" connectives. Certain "non-co-ordinating" connectives are also loosely included with the co-ordinating conjunctions:

- expressions borrowed from foreign languages: kontra (=contra), versus (=versus), alias (=alias), de facto (=de facto) etc.,
- phrases which have become set expressions that may now be treated as a means of expressing, in particular, an appositional relationship : to jest (=that is), to znamená (=that means) etc.


### 8.16.1.2. Conjunction modifiers

By a conjunction modifier is meant a non-conjunction word, most frequently a particle or an adverb helping to specify (together with a co-ordinating a conjunction) the semantics of a co-ordinating or appositional relation between the clauses or their components. A conjunction modifier is treated as a component of a complex co-ordinating connective.

Each conjunction modifier is represented in the tectogrammatical tree by a separate node. According to the function of a co-ordinating connective (of which the conjunction modifier is a component) the node representing the conjunction modifier is:

- an atomic node with the functor $C M$ (nodet $y p e=a t o m$ ).

An atomic node with the functor CM, which is always a direct daughter node of the root node of a paratactic structure, is a node representing a conjunction modifier where the co-ordinating connective (of which the conjunction modifier is a component) links two (or more) modifications or clauses in a relationship of co-ordination or apposition.

At the node for the conjunction modifier the value 0 is entered in the attribute is_member.
The rule is that although this node is a direct daughter of the root node of a paratactic structure and in the attribute is_member it has the value 0 , it is not a shared modifier of the terminal members of the paratactic structure, nor does it modify the mother of the root node of the paratactic structure. Here we have a node representing an expression which is a component of the co-ordinating connective.

See also Section 6.6.1, "Representing parataxis in a tectogrammatical tree".

- an atomic node with the functor PREC (nodetype=atom).

An atomic node with the functor PREC (dependent on the effective root node of the attached clause) is a node representing the conjunction modifier where the co-ordinating connective (of which the conjunction modifier is a component) indicates that the clause relates to a preceding context (see also Section 7.7.4, "PREC").

Criteria for determining conjunction modifiers. There are many conjunction modifiers found in complex co-ordinating connectives, and they can be combined in various ways. Most particles and adverbs with the primary function of rhematizers, various structural particles, certain adverbs with a primary adverbial function and other expressions can occur as components of co-ordinating connectives.

Only a limited number of expressions occur primarily as components of complex co-ordinating connectives. These are structural and linking particles (for example: tedy (=thus), dále (=further / also)). Their function is to link an utterance to the preceding context. Additionally, they can be carriers of a meaning (for example consequential), which would be lost if they were detached. Thus typical components of connectives such as dokonce (=even), jednak (=on the one hand), tudizz (=consequently) are also always represented as conjunction modifiers.

The majority of expressions functioning as conjunction modifiers are however homonyms; in another construction the same expressions can fulfil other functions, particularly the function of rhematizers.

The chief criterion for the classification of a particular expression as a conjunction modifier is that only those expressions which do not participate in the sentence structure and are not rhematizers in the sentence form components of a co-ordinating connective. The rule is then that :

- expressions with the meaning of the functor MOD, ATT or also EXT (similar to conjunction modifiers) do not participate in complex co-ordinating connectives (for example: asi (=perhaps), možná
(=possibly), snad (=hopefully), prýy (=apparently/they_say_that), bohužel (=unfortunately), skoro (=nearly), téméř (=almost)), which always form part of the sentence structure.

If these expressions occur after a conjunction between paratactically connected components, it is a case either of clausal co-ordination, where the node representing the given expression is dependent on a newly established node for the predicate (see also Section 6.6.1.2, "Parataxis of sentence parts, parataxis of clauses and mixed parataxis"), or modification of one of the conjuncts. Cf:

- Přišel Karel a snad i Pavel. (=Charles came, and hopefully Paul as well.)
= Přišel Karel a snad.MOD \{přijít (=to come).PRED\} i Pavel. (=Charles came, and hopefully Paul as well.)

The modification snad (=hopefully) modifies the elided predicate přijit (=to come).

- Přišel Karel a bohužel i Pavel. (=Charles came, and unfortunately Paul as well.)
= Přišel Karel a bohužel.ATT \{prijít (=to come).PRED\} i Pavel. (=Charles came, and unfortunately Paul as well.)

The modification bohužel (=unfortunately) modifies the elided predicate přijít (=to come).

- Přišel unavený a téměr zoufalý (=He arrived tired and almost in despair)
$=$ Přišel unavený a téměř.EXT zoufalý. (=He arrived tired and almost in despair)
The modification témĕr (=almost) modifies the adjective zoufalý (=desperate).
- Expressions having a rhematizing function (identical to conjunction modifiers) do not form part of co-ordinating connectives. The rule for these homonyms is that:
- if in a case of constituent co-ordination, functioning in the sentence structure as a unit (thus having the same properties in terms of functional sentence perspective), expressions having potential rhematizing function occur after a conjunction, between the co-ordinated components, these expressions are classified as conjunction modifiers. Cf:
- Podej mi ị. RHEM sešit a tužku. (=Hand me a notebook and pencil as well.)

The particle $i$ ( $=$ also) rhematizes the entire co-ordination. The node representing this rhematizer will be represented as the left sister of the root node of the paratactic structure.

- Podej mi sešit a ị.CM tužku. (=Hand me a notebook and pencil as well.)

The particle $i$ (=also) does not have a rhematizing function; it is therefore classified as a conjunction modifier. The node representing this expression has the functor CM and is a direct daughter node of the root node of the paratactic structure which is the node representing the conjunction $a(=a n d)$.

- in clausal co-ordination the emphatic particle may have a rhematizing function, or it may not; in the latter case it is classified as a component of the co-ordinating connective. Cf:
- Dnes přišel Karel, ale včera jsem zahlédl také.RHEM Jirku. (Today Charles came, but yesterday I caught sight of George as well.)

The particle také (=also) has a rhematizing function, signalling the focus proper Jirka (=George). The node representing this rhematizer will be represented as a left sister of the node representing the noun Jirka (=George).

- Nejenže naše firma staví domy, ale budujeme také.CM na sidlištich dětská hřiště. (=Not only is our company building houses, but we are also setting up children's playgrounds on the housing estates.)

The particle také (=also) does not have a rhematizing function; the shifting of the particle (ale také.CM budujeme na sidlištich dětská hřiště (=we are setting up children's playgrounds on the housing estates) ) does not alter the meaning, so this is not a case of a rhematizer; the particle is therefore classified as a conjunction modifier. The node representing this particle has the functor CM and it is a direct daughter node of the root node of the paratactic structure which is the node representing the conjunction ale (=but).

See also Section 10.6.1.3, "Homonymy: rhematizer - conjunction modifier" and Section 8.13.3, "Negating expressions as conjunction modifiers".

The effect of the conjunction modifier on the meaning of the co-ordinating conjunction. Conjunction modifiers in the co-ordinating connective have essentially a dual effect on the meaning of the coordinating conjunction, and thus that of the entire paratactic connection:

- they only render the meaning of the basic conjunction more precise, giving it more emphasis.

The functor describing the meaning of the paratactic connection (at the root node of the paratactic structure) is the same, whether or not a conjunction modifier is present.

Cf:

- Dostal kolo a.CONJ počitač. (=He got a bicycle and a computer.)
- Dostal kolo $\underline{\text { a. CONJ také.CM počitač. (=He got a bicycle and a computer.) }}$
- they cause a shift in the meaning (by contrast with that carried by the basic conjunction on its own).

The functor describing the meaning of the paratactic connection (at the root node of the paratactic structure) changes if a conjunction modifier is present.

Cf:

- Dostal kolo a .CONJ počitač. (=He got a bicycle and a computer.)
- Dostal kolo a . GRAD dokonce. CM počitač. (=He got a bicycle and even a computer.)

Types of conjunction modifiers. In respect of the effect on the meaning of the paratactic connection (and for purposes of annotation) conjunction modifiers are divided into the following groups:

## - contextualisers.

Contextualisers are conjunction modifiers which can be attached to any co-ordinating connective without any fundamental change in the meaning of the paratactic connection (the functor at the root node of the paratactic structure).

Contextualisers include, for example, the expressions:
$i$ (=also)
také (=also)
též (=also)
zároveň (=at the same time / along with)
rovněž (=likewise)
ještě (=as well)

- restrictors.

Restrictors are usually particles whose lexical meaning involves closer, narrower definition of a set. Restrictors give to a paratactic connection one of the meanings of the following functors: ADVS, GRAD, CONFR, DISJ (see Section 7.12.1, "Functors for coordination").

Restrictors comprise for example the expressions:
alespoň (=at least)
hlavně (=mainly)
jenom (=only)
pouze (=only)
třeba (=perhaps)
zejména (=particularly)

- negating modifiers.

Negation taking the form of a morpheme and a particle can also be a component of a co-ordinating connective. If a negating modifier is a component of a co-ordinating connective, the root node of the paratactic structure carries one of the following functors: ADVS, GRAD, CONFR (see Section 7.12.1, "Functors for coordination").

Negating modifiers include the expressions:
ne ( $=$ no / not)
nikoli/v (=no / by no means)
ani (=nor / neither)
the morpheme ne- (=non- / un-) in verbs (represented in the tectogrammatical tree by a node with the t-lemma substitute \#Neg)

On negating modifiers see Section 8.13.3, "Negating expressions as conjunction modifiers".

## - other modifiers.

A number of further expressions also form components of connectives. It is a characteristic of most of them that they add to the paratactic connection the typical meaning of only one of the functors for co-ordination. Thus they may be further sub-categorised on the basis of the meaning they are typically associated with:

- conjunction modifiers typical for the meaning ADVS.

For example: přece (=after all), nýbrž (=but rather), zato (=on the other hand).

- conjunction modifiers typical for the meaning CONFR.

For example: naopak (=on the contrary).

- conjunction modifiers typical for the meaning CONJ.

For example: stejně (=in any case), podobně (=similarly).

- conjunction modifiers typical for the meaning CSQ.

For example: proto (=therefore), tudiž (=consequently).

- conjunction modifiers typical for the meaning DISJ.

For example: případně (=possibly), popřípadě (=as the case may be), eventuálně (=possibly).

- conjunction modifiers typical for the meaning GRAD.

For example: dokonce (=even), navic (=additionally), nadto (=furthermore).

- conjunction modifiers typical for the meaning APPS.

For example: jmenovitě (=explicitly), napřiklad (=for example), zkrátka (=in short).
The sub-categories are not definitive, however. It is not the case, for example, that an expression assigned to a group of expressions typical for the meaning CONJ may not nevertheless occur in a
particular sentence as a component of a co-ordinating connective with the meaning of a different functor for co-ordination.

### 8.16.2. Operators

Operators are defined as (linking) expressions for the expression of mathematical operations and intervals. In terms of their form they are both subordinating and co-ordinating expressions. Operators comprise in particular:

- signs for mathematical operations $(+)$ and also their lexical forms (plus (=plus)).
- the dash as a punctuation mark or the comma for the expression of an interval.
- the expression $a \check{z}$ (=until) expressing an interval.
- a combination of prepositions expressing an interval. For example: od - přes -do (=from - through -to), od - po (=from - to), počinaje - konče (=beginning - ending).

The rules for the annotation of mathematical operations and intervals are described in Section 8.11, "Mathematical operations and intervals".

An operator is represented in the tectogrammatical tree by a separate node only in cases where mathematical operations or intervals are represented as a paratactic structure. The node representing an operator then stands for the root node of this paratactic structure (functor=OPER).

T-lemma. The t-lemma of the node representing the operator of the mathematical operation is the sign of the relevant mathematical operation, either in the form of the t-lemma substitute (\#Colon for the colon, \#Slash for the slash) or (in a case where a t-lemma substitute has not been provided for a given sign) in the form in which it occurs in the text: thus either as a symbol (for example: + ), or as a word (for example: plus (=plus)).

In the $t$-lemma of the node for the operator of the interval realised by a combination of prepositional phrases the respective prepositions are joined by an underscore (od_pres_do ( $=$ from_through_to); see also the section on multi-word t-lemmas Section 4.3, "T-lemmas of multi-word (complex) lexical units"). Individual combinations of prepositions expressing an interval are realised at surface level by various formal variants ( od - do ( $=$ from $-t o$ ), od - po ( $=f r o m-t o$ ), od $-k$ ( $=$ from -towards)). For the respective formal variants one representative variant is always selected, recorded as the t -lemma of the node the operator represents in the tectogrammatical tree (od_do $(=$ from $-t o)$ ).

The expression "až". The expression $a \check{z}(=u n t i l)$ has a dual function in the expression of mathematical operations and intervals:

- an operator.

The expression $a \check{z}$ (=until) is an operator with the meaning of an interval in examples such as:
pět až.OPER deset bodů (=five to ten points)
obdobi 1938 azz.OPER 1954 (=the period from 1938 till 1954)
If the expression $a \check{z}$ (=until) is an operator, it is represented by a node which is the root node of the paratactic structure and has the functor OPER ( t _lemma=až).

- an expression modifying an operator.

The expression $a \check{z}(=u n t i l)$ is a conjunction (operator) modifier which emphasises the second (final) boundary of the interval in cases where the interval is realised by a combination of prepositional phrases.

If the expression $a \check{z}$ (=till) is a conjunction (operator) modifier it is represented by a node which is a direct daughter node of the root node of the paratactic structure and has the functor CM ( $t$ _lemma $=a \check{z}$ ). The value 0 is entered in the attribute is_member.

The rule is that although this node is a direct daughter node of the root node of the paratactic structure and in the attribute is_member it has the value 0 , it is not a shared modifier of the conjuncts and it does not modify the mother of the root node of the paratactic structure.

Example:
od pěti azz.CM do deseti bodů (=from five to ten points)

Cf:

- 1 plus 1 (=1 plus 1)

The operátor will be represented by a node with the t -lemma plus.

- byt $1 \pm 1$ (= lit. appartment $1+1$ )

The operator will be represented by the node + (a t-lemma substitute has not been introduced for the mathematical addition sign).

- Utkání skončilo $2: 0$ (=The match ended $2: 0)$.

The operator will be represented by a node with the t -lemma \#Colon (the node representing the colon (with whatever meaning) has the t-lemma substitute \#Colon; see Section 4.4, "T-lemma substitutes").

- od deseti do osmdesáti procent (=from ten to eighty percent)

Prepositional operators will be represented by a single node with the representative t-lemma od_do.

- počínaje složitou dopravou na Strahov, přeplněným parkovištěm, až.CM po dlouhé fronty na lístky (=starting with the complicated travel to Strahov, the overflowing car park and then the long queues for tickets.)

Prepositional operators will be represented by one node with the representative t-lemma od_do. The expression $a \check{z}$ ( $=$ till) will be represented as a conjunction (operator) modifier.

- od notebookỉ přes stolní modely azz.CM po viceprocesorové servery (=from notebooks to desktop models to multi-processor servers)

Prepositional operators will be represented by one node with the representative t-lemma od přes_do. The expression $a \check{z}$ (=till) will be represented as a conjunction (operator) modifier.

### 8.17. Prepositions and subordinating conjunctions

Prepositions and subordinating conjunctions are not represented by a node in the tectogrammatical tree (by contrast with the analytical; see also Section 2.1, "Relation between the tectogrammatical level and the lower levels"). Their meaning is reflected on the tectogrammatical level in the value of the functor and subfunctor (see Chapter 7, Functors and subfunctors).

For a list of functional possibilities of prepositions and subordinating conjunctions see Appendix 1, Functional possibilities of selected means of expression.

This section describes some annotation rules relating to prepositions and subordinating conjunctions:

- secondary prepositions (see Section 8.17.1, "Secondary prepositions");
- closer specification of prepositions (see Section 8.17.2, "Closer specification of prepositions");
- the prepositions "kromě (=besides / except)", "mimo (=excepting / beyond)", "vedle (=alongside)", "místo (=instead)", "namísto (=in place)" (see Section 8.17.3, "The prepositions "krome"", "mimo", "vedle", "místo", "namísto"");
- the conjunctions "než (=than)" and "jako (=as / like)" (see Section 8.17.4, "The conjunctions "než" and "jako"");
- transposition of a subordinating conjunction to a particle (see Section 8.17.5, "Transposition of a subordinating conjunction to a particle").

Prepositions may also be a component of supporting expressions (combination of prepositions with the pronoun ten $(=$ that $)$ ), referring to the following (or preceding) dependent clause; on this see Section 6.5.3, "Supporting expressions".

### 8.17.1. Secondary prepositions

Many secondary prepositions are represented as prepositions in tectogrammatical trees.
Expressions represented as secondary prepositions are introduced in Appendix 3, Secondary prepositions. However, an expression included in this list is not always a secondary preposition. Words listed as components of a secondary preposition can have their own semantic and syntactic significance in the clause, in which case they are represented by a separate node in the tree and do not form a component of the preposition. Cf.:

- Pracuje $<\underline{v}$ oboru $>$ strojírenstvi. (=He/She works in the field of mechanical engineering.)
= Pracuje ve strojírenství. (=He/She works in mechanical engineering.)
The expression $v$ oboru ( $=$ in the field) is a secondary preposition in the sentence. Cf. Fig. 8.288.
- Studuje $<\underline{v}>$ oboru matematická lingvistika.
= Studuje obor matematická lingvistika. (=His/Her field of study is mathematical linguistics.)
The expression $v$ oboru (=in the field) is not a secondary preposition. The word obor (=field) has semantic and syntactic significance in the sentence. Only the primary preposition $v(=i n)$ is a preposition.

The potential secondary preposition is not a secondary preposition if any of its components is further modified. Cf.:

- $\leq N a>$ nejednoznačném základě smlouvy byla dohodnuta další ujednání. (=On the equivocal basis of the agreement, further negotiations were agreed on.)

The expression na základě (=on the basis) is not a secondary preposition in the sentence.

- Krok byl podniknut $\leq \boldsymbol{v}>$ jistém zájmu této firmy. (=The step was taken in the clear interest of this company.)

The expression $v$ zájmu (=in the interest) is not a secondary preposition in the sentence.

- $\leq Z>$ určitého hlediska se to dá tak chápat. (=From a particular point of view it can be understood as such.)

The expression $z$ hlediska (=from the point of view) is not a secondary preposition in the sentence.
!!! There are three cases when a component of a potential secondary preposition is modified which stand out as candidates for representation in future as secondary prepositions but which are currently not so represented:

- modification of a prepositional phrase by a possessive pronoun or adjective.

Cf.:

- ve prospěch Pavla (=to Paul's advantage)

In this case the expression ve prospěch (=to the advantage) is represented in PDT as a secondary preposition. Cf. Fig. 8.289.

- v Pavlův prospěch (=to Paul's advantage)

In this case the expression ve prospěch (=to the advantage) is not currently represented in PDT as a secondary preposition. Cf. Fig. 8.290.

- v jeho prospěch (=to his advantage)

In this case the expression ve prospěch (=to the advantage) is not currently represented in PDT as a secondary preposition.

- modification of a prepositional phrase by a (non-possessive) adjective derived from a noun incapable of forming a possessive adjective.

Cf.:

- ve prospěch firmy (=to the company's advantage)

In this case the expression ve prospěch (=to the advantage) is represented in PDT as a secondary preposition.

- ve firemní prospěch (=to the company's advantage)

In this case the expression ve prospěch (=to the advantage) is currently not represented in PDT as a secondary preposition.

- vjejí prospěch (=to its advantage)

In this case the expression ve prospěch (=to the advantage) is not currently represented in PDT as a secondary preposition.

- modification of a prepositional phrase by the demonstrative pronoun ten (=that):

Cf:

- na základě všech řešení (=on the basis of all the solutions)

In this case the expression na základě (=on the basis) is represented in PDT as a secondary preposition.

- na tomto základě (=on that basis)

In this case the expression na základě (=on the basis) is not currently represented in PDT as a secondary preposition.

Figure 8.288. Secondary preposition

pracovat.enunc
f_PRED
v decl.disp0.ind
proc.it 0.res0.sim

$$
\begin{array}{ll}
\text { \#PersPron } & \text { strojírenství } \\
\text { t_ACT } & \text { f_LOC.abstr } \\
\text { n.pron.def.pers } & \text { n.denot } \\
\text { anim.sg.3.basic } & \text { neut.sg }
\end{array}
$$

Pracuje v oboru strojírenství. (=lit. (He/She) works in (the) field (of) mechanical_engineering.)
Figure 8.289. Secondary preposition


Dopadlo to ve prospěch Pavla. (=lit. Turned_out it to advantage (of) Paul.)

Figure 8.290. Potential secondary preposition


Dopadlo to v Pavlův prospěch. (=lit. Turned_out it to Paul's advantage.)

### 8.17.2. Closer specification of prepositions

The meaning of both secondary and primary prepositions can be more closely specified and defined; for example:

Stůl se nachází zcela uprostřed mistnosti. (=The table is situated right in the middle of the room.)
Closer specification of the preposition is represented as a specification of the entire prepositional phrase. The node representing the specifying expression is a dependent node of the effective root node of the prepositional phrase and usually has the functor EXT .

Examples:
Stůl se nachází zcela .EXT <uprostřed> mistnosti. (=The table is situated right in the middle of the room). Fig. 8.291

Leží přesně..EXT $\leq$ pod $>$ stolem. $(=$ It is right under the table.) Fig. 8.292
Zastávka je poměrně.EXT <blizko> školy. (=The stop is fairly close to the school.) Fig. 8.293

Figure 8.291. Closer specification of a preposition


Stůl se nachází zcela uprostřed místnosti. (=lit. (The) table REFL is_situated right in_the_middle (of) (the) room.)

Figure 8.292. Closer specification of a preposition


Leží přesně pod stolem. (=lit. (It) is right under (the) table.)

Figure 8.293. Closer specification of a preposition


Zastávka je pomérné blizko školy. (=lit. (The) stop is fairly close_to (the) school.)

### 8.17.3. The prepositions "kromě", "mimo", "vedle", "místo", "namísto"

The prepositions kromě (=except/besides), mimo (=beyond/except), vedle (=alongside), misto (=instead), namisto (=in place) are exceptional in that they are not necessarily followed by a noun in the requisite case; they can be followed by a further prepositional phrase or a noun in a case other than that required by the preposition; for example:

Kromě dosavadních úkolů bude tento úřad vydávat licence pro podnikání na dráze. (=Besides its previous roles.GEN, this office will issue licences for enterprises on the railway.)
$\underline{\text { Kromě do Říma, jeli i do Benátek. (=Besides Rome (lit. to Rome), they went to Venice as well.) }}$
Cases in which the prepositions kromě ( $=$ except/besides), mimo ( $=$ instead), vedle ( $=$ alongside), misto (=instead), namisto ( $=$ in place) are followed by a further prepositional phrase or a noun in a case other than that required by the preposition are represented as an ellipsis of the verb. Cf.:

- Misto kjednotě by Evropa spěla ke staré nedůvěre. (=Instead of unity (lit. towards unity), Europe would incline towards the old mistrust.)
= Misto toho, aby spěla kjednotě, by Evropa spěla ke staré nedůvěře. (=Instead of inclining towards unity, Europe would incline towards the old mistrust.)

The clause acquires a new node for the verb; it will usually be a copy of the node representing the verb in the governing clause. The effective root node of the prepositional phrase following the preposition misto (=instead) (kjednotě (=towards unity)) will be the dependent node of this inserted node for the verb. Cf. Fig. 8.294.

The reason for inserting a new node for the verb is the fact that the case form exhibited by the noun (phrase) is not determined by the preceding preposition; thus the case form of the noun is explained
only by its being a modification of the elided verb and it also enables the appropriate functor to be assigned to the noun phrase, which would otherwise be covered by the functor RESTR or SUBS.

Figure 8.294. Prepositional phrase following the preposition "místo"


Misto kjednotě by Evropa spěla ke staré nedůvěre. (=lit. Instead towards unity, would Europe incline towards (the) old mistrust.)

On the prepositions kromě (=except/besides),mimo (=except/beyond), vedle (=alongside) see also Section 8.6, "Constructions signifying "restriction" and "exceptional conjoining"".
!!! Constructions in which the preposition (kromě (=except/besides), mimo (=except/beyond), vedle (=alongside)) would be followed by a form other than that required by the preposition do not occur in PDT.
!!! Following the prepositions misto (=instead) and namisto (=in place), ellipsis of the verb is in the majority of cases so far unrepresented in PDT. The functor SUBS is assigned direct to the effective root node of the noun phrase following the preposition.

### 8.17.4. The conjunctions "než" and "jako"

The conjunctions než (=than) and jako (=as) link both clauses and modifications. Their status in respect of subordination and co-ordination is not unequivocal. The conjunction jako (=as) can link two modifications both in a paratactic relation and in a relationship of dependency.

The conjunctions než (=than) and jako (=as) do not demand a specific form of the element that follows them; therefore the majority of cases in which the conjunction než (=than) or jako (=as) is followed at surface level by a noun in a certain case or by a prepositional phrase are represented as ellipsis of the verb. Cf.:

- Tady to vypadá jako v ráji. (=It looks like paradise here.)
$=$ Tady to vypadá, jako to vypadá v ráji. (=It looks here as it does in paradise.)
- Pojedeme dříve do Prahy než do Brna. (=We will go to Prague sooner than to Brno.)
= Pojedeme dříve do Prahy, než pojedeme do Brna. (=We will go to Prague sooner than we will go to Brno.)

The clause acquires a new node for the verb; it will usually be a copy of the node representing the verb in the governing clause. The effective root node of the prepositional phrase following the conjunction jako (=as) or než (=than) will be a dependent node of the inserted node.

Exceptions. Exceptions are the following cases in which no new node for the verb is added in the structure:

- the conjunction jako (=as):
- the conjunction jako (=as) attaches a modification in the position of Patient, Effect or predicative complement.

The form of the modification is determined here by the agreement.
For example:
Vzali ji jako učitelku.COMPL (=They took her on as a teacher)

- direct comparison with the conjunction jako (=as).

For example:
Člověk neni jako Bůh.CPR (=A person is not like God)
For more on this, see Section 8.4.1, "Comparison by means of the conjunction "jako" (comparison based on identity and similarity)".

- Apposition or co-ordination of sentence parts.

For example:
$V$ Praze jako.APPS v hlavním městě sidlí většina důležitých organizací. (=The headquarters of most important organisations are located in Prague, as the capital city.)

On this, see also Section 6.6.2.1.3, "Apposition with the conjunction "jako"".

- the conjunction než (=than):
- comparing constructions with quantitative data.

For example:
Je to tezžší než deset kilogramů.CPR (=It is heavier than ten kilograms.)
For more on this see Section 8.4.2.1, "Comparing quantities by means of the conjunction "než"".
Boundaries between constructions created by multifunctionality of the conjunction "jako". The multifunctionality of the conjunction jako ( $=a s$ ), which in terms of its form is treated as both paratactic and hypotactic, can also frequently give rise to a very vague boundary between the constructions:

- paratactic connection (appositional and co-ordinating),
- modification with dual dependency (predicative complement and arguments),
- (dependent) modification with comparative meaning (CPR).

The correct determination of the construction depends on the assessment of the semantic dependency relationships: in the case of a modification with comparative meaning semantic dependency is essential;
in the case of a predicative complement (or argument) the modification must exhibit dual dependency and in the case of a paratactic structure a relationship of co-ordination or apposition should exist between the modifications. Surface syntax may also play a significant role in the determination of relationships.

Cf:

- Kantor si přál jako každý umělec, aby dilo přetrvalo jeho smrt. (=Kantor had the wish, like every artist, that his work would live on after his death.)
= Kantor si přál stejně, jako si přeje každý umělec, aby dilo přetrvalo jeho smrt. (=Kantor had the wish, just as every artist has, that his work would live on after his death.)

In the tectogrammatical tree the dependent clause is represented with comparative meaning (see Section 8.4.1, "Comparison by means of the conjunction "jako" (comparison based on identity and similarity)").

- Kantor jako umělec si přál, aby dílo přetrvalo jeho smrt. (=Kantor had the wish, as an artist, that his work would live on after his death.)

The expression Kantor jako umělec (=Kantor as an artist) will be represented as an appositional expression (as a paratactic structure). See Section 6.6.1, "Representing parataxis in a tectogrammatical tree".

- Kantor si přál jako umélec, aby dílo přetrvalo jeho smrt. (=Kantor had the wish, as an artist, that his work would live on after his death.)

The modification jako umělec (=as an artist) will be represented as a predicative complement (see Section 6.10, "Predicative complement (dual dependency)").

- Plzeñ a Krušovice ochutnal stejnějako Budvar. (He tasted Pilsner and Krušovice as well as Budvar.)
$=$ Plzeň a Krušovice ochutnal stejně, jako ochutnal Budvar. (He tasted Pilsner and Krušovice as well as he tasted Budvar.)

The dependent clause is represented in the tectogrammatical tree with comparative meaning (see Section 8.4.1, "Comparison by means of the conjunction "jako" (comparison based on identity and similarity)").

- Ochutnal Plzeň, Krušovice, stejně jako Budvar. (=He tasted Pilsner and Krušovice, as well as Budvar.)

The expression Plzeň, Krušovice, stejně jako Budvar (=Pilsner and Krušovice, as well as Budvar) will be represented as a paratactic structure. See Section 6.6.1, "Representing parataxis in a tectogrammatical tree".

- Pro filharmonii to byl jedinečný večer, stejně jako pro diváky. (=For the philharmonic, as well as for the audience, it was a unique evening.)
= Pro filharmonii to byl jedinečný večer, stejně jako byl jedinečný pro diváky. (=It was a unique evening for the philharmonic, as unique as it was for the audience.)

The dependent clause is represented in the tectogrammatical tree with comparative meaning (see Section 8.4.1, "Comparison by means of the conjunction "jako" (comparison based on identity and similarity)").

- Pro filharmonii, stejně jako pro diváky to byl jedinečný večer. (=For the philharmonic, as well as for the audience, it was a unique evening.)

The expression pro filharmonii, stejně jako pro diváky (=for the philharmonic, as well as for the audience) will be represented as a paratactic structure. See Section 6.6.1, "Representing parataxis in a tectogrammatical tree".

### 8.17.5. Transposition of a subordinating conjunction to a particle

A subordinating conjunction which does not attach a dependent verbal clause but functions in the clause as a particle (expressing modality, the speaker's standpoint), is not hidden but represented by a separate node in the tectogrammatical tree, a dependent node of the effective root node of the clause, with the functor ATT (nodetype=atom). For example:

Když.ATT ale vy to nevidite dobře. (=emphatic: But you can't see it clearly.)
NB! The node for a subordinating connective never has the functor PREC (see Section 7.7.4, "PREC").

### 8.18. Punctuation

Punctuation marks present at surface level are not usually represented in any way in the tectogrammatical tree: there is no node that corresponds to them and they do not affect attribute values.

However, there are several cases where a punctuation mark is represented by a node in the tectogrammatical tree. The t -lemma of this node is then the t -lemma substitute for the appropriate punctuation mark (see Section 4.4, "T-lemma substitutes"):

- full stop (period): t_lemma=\#Period,
- three dots: t_lemma=\#Period3,
- comma: t_lemma=\#Comma,
- colon: t_lemma=\#Colon,
- dash: t_lemma=\#Dash,
- slash: t_lemma=\#Slash,
- semicolon: t_lemma=\#Semicolon.

Cases where these punctuation marks are represented in the tectogrammatical tree by a node are as follows:

- component of a foreign-language text.

Example:
Out Of The Body - [\#Dash.FPHR] Fig. 8.295
All expressions which are components of a foreign-language text, including punctuation marks and other characters, are represented by separate nodes with the functor FPHR (for more on this see Section 8.9, "Foreign-language expressions").

Evidently, all punctuation marks can occur as components of foreign-language text.

- functions of a co-ordinating connective or operator.

Examples:

Image jsou, ach, vždy tak krásné; skutečnost holá a ohyzdná. [\#Semi colon.CONJ] (=Images are always oh so beautiful, the reality bare and ugly.) Fig. 8.296
$V$ armádě je nepořádek a dějí se v ní hrozné věci... obchází ji strach, uvedl ve středečnich $L N$ mistopředseda bezpečnostniho výboru parlamentu. [ \#Peroid3.CONJ] (=There is disorder in the army and terrible things go on there... fear abounds, stated the deputy chairman of the parliamentary security committee in Wednesday's edition of LN (Lidové noviny - People's Daily).)

Záhřeb/Sarajevo/Atlanta. [ \#Slash.CONJ] (=lit. Zagreb/Sarajevo/Atlanta)
100:3,68 $=27$ [\#Colon.OPER]
If a punctuation mark functions as a co-ordinating connective or operator it is represented in the tectogrammatical tree by a node standing for the root node of the paratactic structure (for more on this see Section 6.6, "Parataxis" and Section 8.16, "Co-ordinating connectives and operators").

The function of a co-ordinating connective or operator can be fulfilled by all punctuation marks, except perhaps the full stop (period).

- predicate function .

Examples:
Šerák-1353 metrů. [\#Dash.PRED] (=Mt. Šerák-1353 metres.) Fig. 8.297
Její cena za manažera: 80-250 tisic šilinků. [ \#Colon.PRED] (=Their price for a manager: 80 - 250 thousand schillings)

A punctuation mark functioning as a predicate is represented as a node with the functor PRED (for more on this see Section 6.4.1, "Verbal clauses").

The predicate function is adopted particularly by the comma, the dash and the colon.

## - function of a modification not expressed in words

The function of a modification not expressed in words can be adopted by three dots, particularly in the following cases:

- three dots stand for the last constituent of a sequence of co-ordinated elements.

Example:
Nechybějí tu ani ozvuky punku, blues, rock'n'rollu, popu, bilého reggae... [\#Period3.ACT] (=And here are heard as well, of course, the strains of punk, blues, rock'n'roll, pop, white reggae...)

If three dots express the last constituent of a sequence they are represented according to the instructions in Section 6.6.2.1.1, "Coordination with "atd.", "apod.", "aj."", as a node with a functor that is congruent with the functors of the nodes for the other co-ordinated (terminal) constituents.

- three dots stand for a part of the sentence not expressed in words (modification, entire clause).

Examples:
To nás rozhořčilo tak, že... [ \#Period3.RESL] (=That annoyed us so much that...) Fig. 8.298
A přece... [ \#Period3.PRED] (=After all...) Fig. 8.299

Lze tak snadno aktualizovat předrevoluční dopis či článek prostou náhradou soudruh za pan a KSČ za... [ \# Period3.EFF] (=You can so easily update a pre-revolutionary letter or article simply by replacing comrade with Mr and CPCS with ...)

If three dots stand for a part of a sentence not expressed in words they are represented by a node with an appropriate functor, corresponding to the function of the non-expressed part.

Figure 8.295. Punctuation


Out Of The Body -

Figure 8.296. Punctuation


Image jsou, ach, vždy tak krásné; skutečnost holá a ohyzdná. (=lit. Images are oh always so beautiful, reality bare and ugly.)

Figure 8.297. Punctuation


Šerák-1353 metrů. (=lit. Šerák - 1353 metres)

## Figure 8.298. Punctuation



To nás rozhořčilo tak, že... (=lit. That us annoyed so_much that...)

Figure 8.299. Punctuation


A přece... (=lit. And still...)

### 8.19. Parts of the text identified by graphical symbols

This section describes how text within quotation marks and apostrophes (Section 8.19.1, "Text within quotation marks"), in brackets and between dashes (Section 8.19.2, "Text in brackets and within dashes") is represented in the tectogrammatical trees.
!!! Only the text within quotation marks and apostrophes is thoroughly represented in PDT (via the special attribute quot). Text in brackets and between dashes has not been treated in any special manner.

### 8.19.1. Text within quotation marks

In the processing of text within quotation marks and apostrophes functioning as quotation marks (subsequently only "text within quotation marks") two types of information are added to the tectogrammatical trees:

- range of quotation marks
$=$ which part of the tectogrammatical tree (which nodes) represents the expressions contained at surface level within the quotation marks.
- types of uses of quotation marks
$=$ which function of the quotation marks applies (for example: direct speech, title, citation).
Both types of information are embedded in the attribute quot, created by a list, each element of which is a structure with the attributes quot/type and quot/set_id. For each text within quotation marks of which the expression represented by a node is a component (the expression can be a component of further texts within quotation marks), there is one element in the list that corresponds to the attribute quot for this node.

Range of quotation marks. For each text in quotation marks a unique identifier is selected. For all nodes representing expressions in the relevant text within quotation marks this unique identifier is recorded in the attribute quot/set_id. One node can be a member of one or more sets of such marked
nodes (embedded quotation marks), or of none. See also Table 8.3, "Values of the attribute quot/set_id".

## Table 8.3. Values of the attribute quot/set_id

arbitrary sequence identifier unambiguously marking a set of nodes representing part of a text in quotation marks

The annotation of the range of the quotation marks takes the following facts into consideration:

- the ranges of the quotation marks may be embedded.
- the range of the quotation marks may extend beyond the sentence boundary.
- the range of the quotation marks does not necessarily correspond to a connected part of the sentence (i.e. one range does not necessarily correspond to one pair of quotation marks).
- nodes within the range of the quotation marks may have direct daughter nodes which are not within the range.
- the range of the quotation marks does not even necessarily correspond to a single connected subtree within a single tectogrammatical tree.
- several texts in quotation marks can occur together in a short section of text and each may be made up of several sub-trees; the decision as to which parts belong to the same range of quotation marks cannot rely on the sequence of nodes in the trees alone, because this is subject to changes resulting from the annotation of the functional sentence perspective.

Types of quotation mark usage. Information on the type of quotation mark usage is given in the attribute quot/type. Each node representing an expression which is a component of a text in quotation marks has, in addition to the attribute quot/set_id, which groups together a set of nodes representing one text in quotation marks, one of the possible values entered in the attribute quot/type (possible values of the attribute quot/type see Table 8.4, "Values of the attribute quot/type"). The type of quotation mark usage is set for the entire text in quotation marks. The rule is, therefore, that nodes with the same identifier in the attribute quot/set_id also have the same value in the attribute quot/type.

## Table 8.4. Values of the attribute quot/type

| citation | the node represents an expression which is a component of the citation identified by <br> quotation marks |
| :--- | :--- |
| dsp | the node represents an expression which is a component of the direct speech identified <br> by quotation marks |
| meta | the node represents an expression which is a component of the metalinguistically em- <br> ployed expression identified by quotation marks |
| title | the node represents an expression which is a component of a proper noun identified <br> by quotation marks |
| other | the node represents an expression which is a component of text in quotation marks and <br> the quotation marks here have none of the above-mentioned functions. |

The respective types of usage are further described in the individual sections.
!!! Currently, the attribute quot/type distinguishes four types of quotation mark usage. In all other types of usage (irony, metaphor etc.) in this phase of the annotation the value other is assigned.

### 8.19.1.1. Quotation marks in the function of denotation of direct speech and quotation

If the quotation marks denote part of a text quoted from a spoken or written speech, or reproducing someone's thoughts, the nodes representing the respective expressions of this text in quotation marks contain in the attribute quot/type the value dsp or citation. The rule here is that:

- the value dsp is entered at nodes representing expressions from such a text in quotation marks that denotes a complete utterance as direct speech (on demarcation of direct speech, see Section 8.3,
"Direct speech"). Cf.:
- ", Vybrali si, " komentoval ministr jejich počinaní, „to správné místo. " (= "They have chosen," commented the minister regarding their action, "the correct place.")

Quotation marks mark direct speech. All nodes representing expressions from this text in quotation marks will have the same identifier in the attribute quot/set_id and in the attribute quot/type they will have the value dsp .

Further examples:
„Máme nékolik set členů." [for every node the following applies: quot/type=dsp] (="We have several hundred members. ")

Martina Hingisová: ,, Hráčky mé akceptovaly. " [quot/type=dsp] (=Martina Hingisová: "The players accepted me.")

Prýse zabarikádovali za formulí „Žádné zvýšení platů bez sniženi nákladů" a nepředkládajížádné konkrétní návrhy. [ quot/type=dsp] (=Apparently they have barricaded themselves behind the formula "No increase in pay without a reduction in costs" and they are not making any concrete proposals.)
„, Jsem zklamanýz toho, že jsme prohráli," byla první slova F.Musila. [quot/type=dsp] (="I am disappointed that we have lost," were the first words of $F$. Musil.)

Na otázku reprezentativniho nezávislého průzkumu v rámci Media projektu, ,,kterou televizi jste včera sledovali, " uvedlo asi $68 \%$ televizi Nova. [quot/type=dsp] (=To the question in a representative independent survey under the auspices of the Media project "What television channel did you watch yesterday?" about $68 \%$ mentioned Nova.)

Vhodnost těch nemalých investic obhajuje slovy: „, Velká cást budov je ve velmi zanedbaném stavu. " [quot/type=dsp] (=He/She defends the appropriateness of these considerable investments with the words: "Many of the buildings are in a very neglected state.")

Povidka Opatrně jakoby připominala Carverovu radu žáku Mc Inerymu: ,, Zkuste psát o tom, co ještě prožit. [quot/type=dsp] (="The story Carefully seemed reminiscent of Carver's advice to his pupil McInery: "Try to write about what is still to be experienced.")

Uslyšel povzdech prodavače: „, Není nad starou mechaniku." [quot/type=dsp] (=He heard the salesman sigh: "You can't beat the old machinery."

On rules for representing direct speech (not only when signalled graphically) see Section 8.3, "Direct speech".

- the value citation is entered at the nodes representing the quotation (citation). By quotation is meant text within quotation marks denoting a quoted utterance which is formally linked to a construction. The quoted utterance is not complete; usually only a part of the utterance is quoted, possibly only one word. Cf.:
- Tisk citoval prezidentku ústavu, podle niž,,je dnes nutné uvažovato změně." (=The press quoted the president of the institute; according to her "it is necessary to consider a change today.")

Quotation marks denote an (incomplete) quotation which is formally incorporated in a clause. All nodes representing expressions from this text within quotation marks will have the same identifier in the attribute quot/set_id and in the attribute quot/type they will have the value citation.

Further examples:
Dodal, že SRN se nechce s Japonskem „tlačit", nýbrž „,podporovat". [for every node the following applies: quot/type=citation] (=He added that the FRG did not want to "pressurise" Japan but to "be supportive")

Řekl, že ,,to není nutné." [quot/type=citation] (="He said "it isn't necessary.")
No special rules have been established for the annotation of formally incorporated quotations.
Borderline cases between direct speech and quotation. Selection of the value dsp or citation is particularly problematic in cases of texts within quotation marks where direct speech, formally not incorporated, is only partially within quotation marks:

- the governing constituent of the direct speech (usually a verb) is within quotation marks, but some expressions which are part of the direct speech are not within the range of the quotation marks.

In such cases the value $d s p$ is entered in the attribute quot/type at all nodes representing expressions which are within the range of the quotation marks.

Example:
Při sporu o odvolání „,nedošlo ke kompromisu", uvedl Vrabec. [quot/type=dsp] (=In the dispute over an appeal "no compromise was reached", stated Vrabec.)

- the governing constituent of the direct speech (usually a verb) is not within the range of the quotation marks. Some lower embedded expressions which are components of direct speech (formally not incorporated) are within the range of the quotation marks.

In such cases the value citation is entered in the attribute quot/type at all nodes representing expressions within the range of the quotation marks.

Examples:
Opel pracuje ,,s velkým nasazením", řekl mluvči. [quot/type=citation] (=Opel works "at a high level of output", said a spokesman.)

Tato fáze přesáhne datum „stanovený jako den odchodu z ČSOB" , uvádí se tam. [quot/type=citation] (=This phase goes beyond the date "set as the day of leaving ČSOB (Czechoslovak Commercial Bank)", it says there.)

- direct speech is not marked by any graphic means.
in such cases the attribute quot/type is not entered at any node.
Example:
Hráčky mě akceptovaly, prohlásila Hingisová. (=The players accepted me, declared Hingisová.)

Borderline cases between direct speech and meta-usage. On borderline cases of direct speech and meta-usage (not only graphically marked) see Section 8.3.3, "Borderline cases between direct speech and meta-usage".

### 8.19.1.2. Quotation marks marking meta-usage

If quotation marks denote an expression used metalinguistically (on demarcation see Section 8.8.3, "Expressions used metalinguistically") the value meta is entered in the attribute quot/type at the nodes representing individual expressions from this text within quotation marks. Cf.:

- Za výchozí význam považuje , hák, hákovitý předmět". (=The original meaning is considered to be "a hook, a hook-shaped object".)

Quotation marks mark meta-usage. All nodes representing expressions from this text within quotation marks will have the same identifier in the attribute quot/set_id and in the attribute quot/type they will have the value meta.

Further examples:
cedule s nápisem ,,Romy neobsluhujeme" [the following applies to every node: quot/type=meta] (=a notice with the inscription "we do not serve Romanies")

Germanismus klika se užívá ve významu ,,štěstí" [quot/type=meta] a znamená také ,, držadlo k otvírání dveři". [ quot/type=meta] (=The Germanism klika is used in the sense of "luck" and it also means "door handle")

Potetovaná kůže znamená ,,Já jsem tady kápo". [quot/type=meta] (=Showing a tattoo means "I am top dog here")

Billboards nápisem „, Vpřed" [quot/type=meta] (=A hoarding with the inscription "Forwards")
Jazýček vah se brzy ustálil na starých hodnotách označených ,„nezájem" [quot/type=meta] a ,, přehliženi". [quot/type=meta] (=The indicator on the scales soon came to rest on the old values designated as "no interest" and "lack of concern".)

Hráčky se omezí na ,,ahoj". [quot/type=meta] (=The players restrict themselves to a "hello")
Slovo „,šebah" [quot/type=meta] znamená původně ,, sedm". [quot/type=meta] (=The original meaning of the word "shebah" is "seven")

Vyznání,"milujitě" [quot/type=meta] islovo,, odchod" [quot/type=meta] lidé zprofanovali. (=People have corrupted the declaration "I love you" and the word "departure".)
$s$ významem „tleskat" [quot/type=meta] (=meaning "to clap".)
Výrobky obsahující freony budou podle zákona zřetelně opatřeny textem „Výrobek obsahuje látky ničicí ozónovou vrstvu Zemé." [quot/type=meta] (=Products containing CFC gases will by law carry a clear warning "Product contains matter damaging to the Earth's ozone layer.")

V přidavném jménu ,,český" [quot/type=meta] se vyskytují dvé pismena mající dominantní význam, a to „, $\underline{c}^{"}$ [quot/type=meta] $a, \underline{s}$ ". [quot/type=meta] (=In the adjective "český" there are two dominant letters, i.e. "c"" and " $s$ ".)
"Hvězdné nebe nade mnou a mravní zákon ve mně" stojí rusky a německy na desce. [quot/type=meta] (="The starry sky above me and the moral law within me" it says in Russian and German on the record. '")

For the annotation rules applying to the structure of the meta-usage of a word or an entire expresssion (not only graphically marked) see Section 8.8.1, "Basic rules for the annotation of identifying expressions".

Borderline cases between meta-usage and title. Meta-usage and titles (the values title and meta) are very similar to one another and in some cases, in the meaning of identification, they overlap. Speaking of words, inscriptions, slogans etc. as such, the actual utterance of a word or inscription can be understood as a title.

Cf:

- heslo „stůj" (=the keyword "stop")
stůj $(=$ stop $)=$ keyword. In this case we select in the attribute quot $/ t y p e$ the value title.
- Slovo „stůj" se piše s kroužkem. (=The word "stůj" is written with a little circle.)
sti̊j = word. In this case, however, we select in the attribute quot/type the value meta. This is not a use of the word in its common meaning but a reference to its graphic form.

The value meta is entered in the attribute quot/type only in clear-cut cases where the meta-usage is clearly indicated by an introductory noun or verb. If the introductory word does not signal meta-usage, a different value is entered in the attribute quot/type. Cf.:

- Nástup obou celků byl avizován transparentem „Vitejite v pekle". (=The approach of both units was announced by the banner "Welcome to hell".)

The noun transparent (=banner) does not signal meta-usage. In the attribute quot/type the value $t$ itle will be entered at all nodes representing individual expressions which are within the range of the quotation marks.

- transparent s nápisem „Hnusný Slovan" (=a banner with the inscription "Loathsome Slav")

The noun nápis (=inscription) is considered a noun introducing meta-usage. In the attribute quot/type the value meta will be entered at all nodes representing individual expressions which are within the range of the quotation marks.

The difference between meta-usage and title is not evident in the annotation of the structure of the tectogrammatical tree. The same rules apply to the annotation of both titles and meta-usage, as shown in Section 8.8.1, "Basic rules for the annotation of identifying expressions".

Borderline cases between meta-usage and direct speech. On borderline cases (not only graphically marked) between direct speech and meta-usage see Section 8.3.3, "Borderline cases between direct speech and meta-usage".

NB! The difference between direct speech and meta-usage is also evident in the annotation of the structure of the tectogrammatical tree. For the annotation of direct speech the rules shown in Section 8.3, "Direct speech" apply; for the annotation of meta-usage the rules shown in Section 8.8.1, "Basic rules for the annotation of identifying expressions" apply.

### 8.19.1.3. Quotation marks denoting a proper name or title

If the quotation marks mark a proper name or title (on demarcation, see Section 8.8.2, "Proper nouns and titles") the value title is entered in the attribute quot/type at the nodes representing the individual expressions in this text within quotation marks. Cf.:

- „Husova cesta do Kostnice" je název akce, kterou porádá Prahal. (= "Hus’s journey to Constance" is the title of an event arranged by Prague 1.)

Quotation marks mark a title. All nodes representing expressions from this text within quotation marks will have the same identifier in the attribute quot/set_id and in the attribute quot/type they will have the value title.

Further examples:

Lépe než „Otvíráme" [quot/type=title] měl pan ředitel svioj text nazvat „, otevřená dlan̆". [quot/type=title] (=Rather than "We are opening" the director ought to have entitled his text "With open Arms".)

Vytvořit určitý prostor, později nazvaný „,transformační polštáŕr" [quot/type=title] (=To create an open space, later known as a "transformation cushion")

Řikali tomu ,,dialog". [quot/type=title] (=They called it a "dialogue")
...dokud se nenaplní úsloví ,, Na každého jednou dojde". [quot/type=title] (=... until the saying "everyone's turn will come sometime" is fulfilled.)

Do lázeňského města přijeli vyzváni motem turnaje „Kdo nebyl v Poděbradech, nemá rád tenis". [quot/type=title] (=People arrived in the spa town in response to the tournament's motto "If you weren't in Podébrady you don't like tennis".)

Hosty uvitá znělka ,, volá Londýn ". [quot/type=title] (=Guests will be welcomed by the callsign
"London calling".)
Staří čeští intelektuálové tehdy dostali nálepku ,,zrádné intelektuální reakce ".[quot / type=title] (=In those days, old Czech intellectuals were dubbed "traitorous intellectual reactionaries".)

Pozdravujte všechny výletniky typu ,,ven z auta, šup na hrad a šup do auta". [quot/type=title] (=Greet all visitors on excursions of the "out of the car, quickly into the Castle and quickly back into the car" type.)

For texts within quotation marks with the value title in the attribute quot/type the rules apply as in Section 8.8.1, "Basic rules for the annotation of identifying expressions".

Borderline cases between title and meta-usage. On borderline cases between title and meta-usage (between values meta and title) see Section 8.19.1.2, "Quotation marks marking meta-usage".

### 8.19.2. Text in brackets and within dashes

Text in brackets and within dashes is not marked in any special way.
Brackets. Brackets are interpreted (with the exception of the case shown below) as marking parenthesis. Text within brackets is annotated according to the rules shown in Section 6.7, "Parenthesis".

Exception: Only in the case where the full form represented by an abbreviation is given before the abbreviation in brackets (and vice versa), the text within brackets is treated as a paratactically connected constituent (in apposition) and it is not represented as in parenthesis.

Examples: ČD (České dráhy) (=CR (Czech Railways)) nebo České dráhy (ČD) (=Czech Railways (CR)).

Dashes. The functions of dashes delimiting a text can vary. In a number of cases text between dashes is treated as in parenthesis (for the rules, see Section 6.7, "Parenthesis"); in other cases dashes are treated as co-ordinating connectives (see Section 8.16, "Co-ordinating connectives and operators").

## Chapter 9. Coreference

Our conception of coreference is based on the notion of reference.
Reference is in general the relation of an expression to a real world object or situation. There are two main types of reference:

- exophoric reference
$=$ referring to a situation or entities outside the text (see Section 9.3.1.3, "Exophora").
- endophoric reference
$=$ referring to another expression within the same text
If two (or more) expressions occur in the text and refer to the same entity, situation etc. - i.e. they have the same reference - their relation (linking the utterances in the text) is called coreference.

As for the endophoric reference, an expression can refer to another expression in the preceeding (or subsequent) utterance or it can refer to a larger segment of the text, too.

NB! We are aware of the fact that the term coreference is usually used only for endophoric reference; still we use the term coreference for cases of extratextual reference as well.

Depending on the relative position of the expressions in the text, one can speak of anaphoric and cataphoric reference. If an expression refers to a preceding expression/utterance, it is a case of anaphoric reference. The expression that is referred to is called antecedent. Cataphoric reference refers to the following utterances or their parts; such an expression can be called postcedent.

Apart from these, other terms are also used: coreferring expression (element) - coreferred expression (element). These terms are more general and neglect the position of the expressions in the text - as both the antecedent and postcedent can be coreferred expressions.

Further, there is:

- grammatical coreference (see Section 9.2, "Grammatical coreference").
- textual coreference (see Section 9.3, "Textual coreference").

Both types are represented at the tectogrammatical level. The division of coreference into grammatical and textual is considered basic and all the other subdivisions take place within these two types.

### 9.1. Representing coreference in the tectogrammatical trees

The current way of representing coreference makes use of the fact that every node of every tree has an identifier (the value of the id attribute), which is unique within PDT. If coreference is a link between two nodes (one node referring to another), it is enough to specify the indentifier of the coreferred node in the appropriate attribute of the coreferring node. Individual coreference subtypes are distinguished by the value of another attribute.

Three attributes have been introduced for representing coreference:

- coref_gram.rf

The coref_gram.rf attribute is used for representing grammatical coreference. See Table 9.1, "Values of the coref_gram.rf attribute".

## Table 9.1. Values of the coref_gram.rf attribute

a list every element of which is a PML refer- identifiers of the coreferred nodes, which are usually
ence in the same tree

Grammatical coreference can always be represented as a link between two nodes (one referring to the other).

- coref_text.rf

The coref_text.rf attribute is used for representing textual coreference if the coreferred node is explicitly specified (see Section 9.3.1.1, "Explicitly coreferred element"). See Table 9.2, "Values of the coref_text.rf attribute".

Table 9.2. Values of the coref_text.rf attribute

| a list every element of which is a PML reference | identifiers of the coreferred nodes |
| :--- | :--- |

- coref_special

The coref_special attribute is used for representing special types of textual coreference: the coreferred node is not a particular node or subtree. These are cases of exophoric coreference (see Section 9.3.1.3, "Exophora") and reference to a segment (see Section 9.3.1.2, "Reference to a segment"). The possible values are in Table 9.3, "Values of the coref_special attribute".

Table 9.3. Values of the coref_special attribute

| exoph | it is referred to an extra-textual situation |
| :--- | :--- |
| segm | it is referred to a segment |

Every coreferring node is assigned a value only in one of these attributes.
Depending on which part of the tree it is referred to, there are the following cases of coreference :

- reference to a leaf.

The coref_gram.rf or coref_text.rf attribute contains the identifier of the target leaf (coreferred node).

Cf.:

- Vlasta šla do divadla, kde na ni čekal Marek. (=Vlasta went to the theater where Marek already waited for her)

The node referred to by ona is the leaf (node) representing Vlasta.

## - reference to the root of a subtree.

The coref_gram.rf or coref_text.rf attribute contains the identifier of the target (coreferred) subtree.

If the coreferred node is not a leaf, we assume that it is referred to the whole subtree. Cf.:

- Mưj o dva roky mladši bratr, kterého ještě neznáš, přijde zitra (=The two years younger brother of mine which you don't know yet comes tomorrow)

The node referred to by kterýy is the whole subtree můj o dva roky mladši bratr, not just the node for bratr.
!!! One cannot exclude the possibility that there are cases such that it is referred just to the node representing the root of a subtree and not to its daughters. This possibility has not been taken into account so far.

A special case of reference to the root of a subtree is reference to the whole sentence. In such cases, the coreferred node is not the root of the sentence but rather the technical root node of the tree.

## - reference to more than one node.

The coref_gram.rf or coref_text.rf attribute contains more identifiers.
It is possible to refer to more than one expression (subtree). In such cases, it is referred to all individual expressions (i.e. the relevant attribute contains the identifiers of all target nodes). There are more than one coreference relations present. Cf.:

- Marie vzala Vlastu do divadla, kde na ně čekal Marek. (=Marie took Vlasta to the theater where Marek already waited for them)

The nodes referred to by ony (=they) are two nodes: the one for Marie and the one for Vlasta and it is necessary to refer to each of them individually.

This is only a temporary solution; see also Section 9.5.2.2, "Referring with the type "tatínek s maminkou"".

- reference to a segment.

The coref_special attribute is assigned the value segm.
It is referred to a larger segment (which is not further specified). For more details see Section 9.3.1.2, "Reference to a segment".

- extra-textual reference.

The coref_special attribute is assigned the value exoph.
It is referred to a reality external to the text. For more details see Section 9.3.1.3, "Exophora".
Coreference relations can also be established between nodes that are not present at the surface level, i.e. between newly established nodes with various t-lemma substitutes (see also Section 9.4, "Survey of types of coreference with respect to the $t$-lemmas of the coreferring nodes"). Coreference relations often form long coreference chains at the end of which there are expressions that do not refer to any other node (see Section 9.5.1, "Preserving the coreference chains").

### 9.2. Grammatical coreference

Grammatical coreference is such a kind of coreference in which it is possible to pinpoint the coreferred expression on the basis of grammatical rules.

The following types of grammatical coreference are distinguished:

- coreference with reflexive pronouns (see Section 9.2.1, "Coreference with reflexive pronouns"),
- coreference with relative elements (see Section 9.2.2, "Coreference with relative elements"),
- coreference with verbal modifications that have a dual dependency (see Section 9.2.3, "Coreference with verbal modifications that have dual dependency"),
- control (see Section 9.2.4, "Control"),
- quasi-control (see Section 9.2.5, "Quasi-control"),
- coreference in constructions with reciprocity (see Section 9.2.6, "Coreference in constructions with reciprocity").

It cannot not be said that one can always unambiguously determine what the coreferred expression is, just on the basis of grammatical rules. For example, in the sentence Přinesl jsem ti knihu o Boženě Némcové, kterou mám velice rád (=I brought you a book about BN, which I like a lot), the antecedent of the relative pronoun který (=which) can be Božena Němcová, as well as kniha (=book). However, there is no homonymy at the tectogrammatical level: it is clear from the tree which expression the dependent clause is dependent on.

Cases of grammatical coreference that do not respect the sentence boundaries are highly marked. For this reason, such occurrences are rather rare; nonetheless, they can be found in PDT, e.g.:

Na dnešní den byl oznámen začátek soudniho řízení s nejznámějším a nejvlivnějším politikem Itálie za poslednich padesát let, sedminásobným premiérem a symbolem mocenského režimu Křestàanské demokracie. Mužem, na němž se Italům libila obratnost, chytrost, intelekt, lehký smysl pro humor, schopnost kompromisu. A kterého ztotožňovali tu s érou hmotného vzestupu, tu s hnilobnou stranokracií. (=Today, a lawsuit was started against the most powerful man in Italy....A man who was admired for his intellect, sense of humour... And which was identified with the era of material success...)

Grammatical coreference is represented with the help of the coref_gram.rf attribute (see Section 9.1, "Representing coreference in the tectogrammatical trees").

### 9.2.1. Coreference with reflexive pronouns

Reflexive pronouns (both personal and possessive) that are adverbal or adnominal modifications are assigned a separate node in the tectogrammatical tree and they always get the t-lemma substitute \#PersPron. Reflexive pronouns always take part in grammatical coreference relations. They mainly corefer with the closest subject; if no subject is present in the same subtree, the reflexive corefers with the subject of the next higher subtree.

Personal reflexives. The expression coreferred to by the personal reflexive se in active constructions is almost always the subject of the governing verb, which corresponds to the ACT argument. In periphrastic passive constructions, the coreferred expression is the subject of the governing verb again; in this case it is usually the PAT argument. Cf.:

- Sobě nedopřeje matka nikdy nic. (=lit. To_herself not_let_have Mother never nothing; meaning: Mother never treats herself to anything pleasant)

The reflexive pronoun sobě corefers with the subject matka (=mother), which corresponds to the Actor argument.

- Žádná práce by neméla být konána pro sebe samu, ale pro potěšení vlastní a druhých. (=No work should be done just for (the work) itself...)

The reflexive pronoun sebe corefers with the subject práce (=work), which corresponds to the Patient argument.

More examples:
Informace o tom, co o sobě, dva roky po rozvodu, už nevíme \{\#PersPron.ACT\}. (=Information about the things we don't know about each other (lit. self) two years after the divorce) Fig. 9.1

Neschopnost opozičnich stran \{\#Cor.ACT\} vzdorovat své vlastnílenosti. (=Inability of the opposition parties to resist their (lit. self's) own laziness) Fig. 9.2

Possessive reflexives. With the possessive reflexive svíj, the situation is more complex. It can also be said that svij primarily (and most often) corefers with the nearest subject but there are also other possibilities:

- with control verbs (see Section 9.2.4.2, "Types of control verbs"), if the controller is an argument different from the one corresponding to the subject.

In such cases $s v i j j$ (which is in the subtree the root node of which represents the infinitive the subject of which is the controllee) does not corefer with the closest subject (i.e. with the subject of the infinitive), but with the subject of the control verb; cf.:

- Mnohá ze svých děl Reich nedovoluje \{\#Gen.ADDR\} \{\#Cor.ACT\} provozovat bez vlastní hráčscké účasti. (=Reich doesn't allow (anybody) to play his (lit. self's) pieces without him playing as well)

The possessive reflexive sviij corefers with the subject of the control verb dovolovat (Reich), and not with the closest subject, which is the controlled subject represented by the node with the \#Cor t-lemma (the controller is the Addressee of dovolovat). Cf. Fig. 9.3.

- in clauses where the verb is in the 3 rd person.

In such clauses, svůj can corefer with any argument, not only the one corresponding to the subject. These uses of svioj are often non-standard; cf.:

- Jejich kajakářské disciplíny oplývají desitkami vynikajícich soupeřů a je také pravděpodobné, že při svém profesionálním přistupu kzávodění i kživotosprávé jim chybí trochu vic uvolněnosti. (=...it is possible that with their (self's) attitude, they might lack the ability to relax)

The possessive reflexive svuij corefers with the Patient jim (=them), which is not in the subject position. Cf. Fig. 9.4.

Also using the pronoun jeho (=his) instead of svíj (=self's) is more and more frequent nowadays. The speaker's intention is respected, the pronoun is left in the form it was used and the given coreference relation is represented in the tree. Cf.:

- Představitelé České lotynky tvrdí, že v souvislosti se současnou negativní kampanív některých sdělovacich prostředcích nezaznamenali pokles zájmu o jejich loterijní hry. (=...they haven't registered any decrease of interest in their [not self's] lottery)

The pronoun jejich (=their) is used instead of sviij (=self's) (which would be the standard use). This is taken to be a case of textual, not grammatical coreference. Cf. Fig. 9.5.

These days, especially in the language of commercials and newspapers, the possessive (non-reflexive) pronoun is more and more often used also in the 1st or 2nd person (instead of the reflexive), e.g.:

## Užijte si vaši dovolenou! (=Enjoy your holidays!)

Also in these cases the annotation respects the intention of the speaker, the pronoun is left unchanged and the coreference type follows from the used form.

Figure 9.1. Coreference with reflexive pronouns


Informace o tom, co o sobě, dva roky po rozvodu, už nevíme. (=lit. Information about that, what about self, two years after divorce, (we) already not_know)

Figure 9.2. Coreference with reflexive pronouns


Neschopnost opozičnich stran vzdorovat své vlastní lenosti. (=lit. Inability (of) oppositional parties to resist self's own laziness)

Figure 9.3. Coreference with reflexive pronouns


Mnohá ze svých děl Reich nedovoluje provozovat bez vlastní hráčské účasti. (=lit. Many of self's pieces Reich not_allows to_perform without self's player's presence)

Figure 9.4. Coreference with reflexive pronouns


Jejich kajakářské discipliny oplývají desitkami vynikajícich soupeřỉ a je také pravděpodobné, že při svém profesionálním přistupu k závoděni i $k$ životosprávé jim chybí trochu vic uvolněnosti. (=lit. Their kayak disciplines abound_in tens (of) outstanding rivals and is also likely, that with self's attitude to competition as_well_as to regime them lack a_bit more composure)

Figure 9.5. A non-reflexive pronoun in place of a reflexive pronoun


Představitelé České lotynky tvrdí, že v souvislosti se současnou negativní kampanív některých sdělovacích prostředcích nezaznamenali pokles zájmu o jejich loterijní hry. (=lit. Representatives (of) Česká lotynka claim, that in connection to present negative campaign in some news media (they) not_registered decrease (of) interest in their lottery games)

Cases when a reflexive is used with no coreference involved. No coreference is involved in two cases in which a reflexive is used:

- there is no coreference relation involved if the reflexive is part of a set expression, an idiom. Such a use of the reflexive is signalled by the DPHR functor (see Section 6.8, "Idioms (phrasemes)").


## Examples:

Cena akcií vzrostla i u IPB, což je svým způsobem podivuhodné. (=...which is strange in a way (=lit. self's way.INSTR))

Svého času jsme to tak dělali. (=At one point (=lit. self's time.GEN) we did it this way)

To je problém sám o sobě. (=It is a separate problem; lit. problem alone about self)

- the so-called ethical dative signalled by the BEN functor does not involve coreference either (see Section 7.9.1, "BEN").

Example:
Potentáti v bance koupí za deset, prodají si za patnáct. (=lit. ... (they) sell self.DAT for fifteen)

### 9.2.2. Coreference with relative elements

### 9.2.2.1. Coreference in relative clauses

Relative pronouns and pronominal adverbs introducing relative clauses are linked to their antecedent in the governing clause (the effective root nodes of relative clauses are assigned the RSTR functor; for more on relative clauses, see Section 6.5, "Dependent verbal clauses"). As for coreference, relative clauses follow a uniform pattern: the relative element corefers with the noun modified by the dependent clause. Cf.:

- Za informační dálnici se považuje světová telekomunikační sití, po niž lze přenášet zvuk, data i obraz a která tak otevírá přistup k množství informatických služeb. (=... a net which makes it possible to transfer sound, data...)

The relative expression nizz (=which) corefers with the noun sit' (=net) modified by the dependent relative clause. Cf. Fig. 9.6.

- Film se odehrává na venkově, v městečku Sardent, kam se po letech vrací - aby si tam léčil zdraví - taméjší rodák. (=The film takes place in a town, to which a native returns after many years...)

The pronominal adverb kam (=where) corefers with the noun městečko (=town) modified by the dependent relative clause. Cf. Fig. 9.9.

Coreference is represented in the tree also in cases of false relative clauses (see Section 6.5.4.1, "False relative clauses"). Cf.:

- Představitelé Hnutí ochráncio zvírat obvinili ředitelku Interpespenziónu ze špatné péče o psy, kteří $v$ útulku údajně hynou na infekční onemocnění. (=...bad treatment of the dogs, which are said to be dying from infectious diseases)

The relative pronoun kteři (=which) corefers with the noun psi $(=\operatorname{dogs})$ modified by the dependent relative clause. Cf. Fig. 9.10.

More examples:
Ti, co kroutí hlavami, nerozumí a nechápou, zároveň instinktivně varují. (=Those who shake their heads...) Fig. 9.7

K největšimu zhoršení došlo v oblasti stavebnictví, kde se počet insolventních firem oproti roku 1993 zvýsil o 24 procent. (=The worst deterioration took place in the construction industry where the number of insolvent companies increased...) Fig. 9.8

Figure 9.6. Coreference with relative elements


Za informační dálnici se považuje světová telekomunikační siť, po niž lze přenášet zvuk, data i obraz a která tak otevírá přistup k množství informatických služeb. (=lit. For information highway REFL considers world telecommunications net, on which is_possible to_transmit sound, data as_well_as picture and which thus opens access to abundance (of) information services)

Figure 9.7. Coreference with relative elements


Ti, co kroutí hlavami, nerozumí a nechápou, zároveň instinktivně varují. (=lit. Those, who shake heads, not_understand and not_comprehend, simultaneously instinctively warn)

Figure 9.8. Coreference with relative elements


K největšimu zhoršení došlo v oblasti stavebnictví, kde se počet insolventnich firem oproti roku 1993 zuýšil o 24 procent. (=lit. - worst deterioration took_place in area (of) construction_industry, where REFL number (of) insolvent companies in_comparison to year 1993 increased by 24 percent)

Figure 9.9. Coreference with relative elements


Film se odehrává na venkově, v městečku Sardent, kam se po letech vrací - aby si tam léčil zdraví taměǰ̌í rodák. (=lit. Film REFL takes_place in country, in town Sardent, where REFL after years returns - to (him)self there cure health - local native)

Figure 9.10. Coreference with relative elements


Představitelé Hnutí ochránců zviřat obvinili ředitelku Interpespenziónu ze špatné péče o psy, kteřív útulku údajně hynou na infekční onemocnění. (=Representatives (of) Movement (of) protectors (of) animals accused manager (of) Interpespenzión of bad treatment of dogs, which in animal_home allegedly die from infectious diseases)

### 9.2.2.2. Coreference of the relative element "což"

Coreference is involved also in cases in which the relative element což (=which) is used (including the oblique cases; e.g. bez čehož, čemuž). Clauses introduced by this relative element are represented as paratactic structures (see Section 6.5.4.1.1, "Constructions with the connectives "což", "přičemž", "načež", "pročež", "začež", "aniž""').
$C o z ̌$ usually corefers with the left sister of its governing verb (see the rules for representing relative clauses with $c o z ̌$ Section 6.5.4.1.1, "Constructions with the connectives "což", "přičemž", "načež", "pročež", "začež", "aniž"").

The following cases are distinguished:

- most often, což connects two clauses (in a coordination) and což refers to the whole preceding clause. The left sister of the verb on which což depends is the effective root node of the preceding clause. Cf.:
- Damiána sem nasadila komunistická tajná policie, což samozřejmě Povolný nemohl tušit. (=Damian was engaged by the communist police, which Povolný couldn't know)

Což refers to the whole preceding clause Damiána sem nasadila komunistická tajná policie; there is a coreference relation between což and the effective root node of the preceding clause: nasadit (=engage). Cf. Fig. 9.11.

- further, there is a regular type of construction in which several clauses are coordinated (in a complex hierarchy). Což refers to the whole complex of the preceding coordinated clauses. The left sister of the verb on which $c o z ̌$ depends is the effective root node of the paratactic structure (nodetype=coap). Cf.:
- Pavel dostal trojku a Hanka jedničku, cožje nespravedlivé. (=Pavel got C and Hanka A, which is not fair)

Což refers to both preceding clauses Pavel dostal trojku a Hanka jedničku; there is a coreference relation marked between $c o z ̌$ and the root node of the paratactic structure, the conjunction $a$. Cf. Fig. 9.12.

- occasionally, což does not refer to the whole preceding clause but only to one expression in the clause. Then, the relative clause introduced by což enters into a coordination or apposition with this expression. The left sister of the verb on which což depends is the node representing the coreferred expression. Cf.:
- Mužstvo ziskalo tři body, cožje maximum. (=The team got three points, which is the maximum)

Což refers to tři body (=three points), there is a coreference relation marked between což and the noun bod ( $=$ point). The expression tři body and the clause cožje maximum are in apposition. Cf. Fig. 9.13.

- due to the nature of což, coreference extending beyond sentence boundaries is also possible. Since in these cases, the division into separate sentences is purely formal, also here, the relative expression refers to the preceding clause: the antecedent is the governing verb of the whole preceding sentence. Cf.:
- Právě vedouci týmu Motorsport Škoda Pavel Janeba jen pokrčil rameny na otázku, jak dopadlo jednání uvnitř koncernu VW, které soutěže v přištím roce jeho tým absolvuje a které ne a kolik jich dohromady bude, jaká bude celková strategie. Což znamená, že vše je zatím ve hvězdách. (=PJ only shrugged his shoulders instead of answering the question... Which means that everything is in the stars)

There is a coreference relation between $c o z ̌$ and the root node of the preceding sentence, the verb pokrčit (=shrug).

- Pan předseda Lux se nemůže smiřit s tím, že podpora jeho křest'ansky orientované strany je taková, jaká je. Což ho, myslím, vede ke křečovitým formulacím. (=Lux can't accept the fact that... Which forces him to say what he's saying)

There is a coreference relation between $c o z ̌$ and the root node of the preceding sentence, the modal predicate nemůže se smiřit (=cannot accept).

Figure 9.11. Coreference with což


Damiána sem nasadila komunistická tajná policie, což samozřejmě Povolný nemohl tušit. (=lit. Damian.ACC here put communist security police.NOM, which of_course P. couln't suspect)

Figure 9.12. Coreference with $\boldsymbol{c o z}$


Pavel dostal trojku a Hanka jedničku, což je nespravedlivé. (=lit. Pavel got C and Hanka A, which is unfair)

Figure 9.13. Coreference with $\boldsymbol{c o z}$


Mužstvo ziskalo tři body, což je maximum. (=lit. Team got three points, which is maximum)

### 9.2.3. Coreference with verbal modifications that have dual dependency

Grammatical coreference also concerns non-expressed arguments of (ad)verbal modifications with the so called dual dependency (see Section 6.1, "Dependency").

This concerns the following verb forms:

- passive participle,
- transgressive (gerund),
- infinitive,
- finite verb form in a dependent clause.

Grammatical coreference comes into picture if one of the forms above occurs in the position of:
a. a predicative complement.

There is a grammatical coreference relation between an argument (corresponding to the subject) of the predicative complement (expressed by a verb form) and the noun such that the predicative complement is in the second dependency relation with it.

For the annotation rules regarding predicative complements, see Section 6.10, "Predicative complement (dual dependency)".
b. the Patient or Effect which agrees (in gender) with another valency modification of the main verb. This is a predicative-complement-like position.

There is a grammatical coreference relation between an argument (corresponding to the subject) of the Patient or Effect (expressed by a verb form) and the noun such that the Patient/Effect agrees with it.

The newly established node has the t-lemma \#Cor and the gram_coref.rf attribute contains the reference to the coreferred expression.

Note: In these constructions, the t-lemma substitute \#Cor is used (for the coreferring expression), which was originally introduced for control constructions. However, these cases are not cases of control, as defined in Section 9.2.4.1, "The notion of control". Nonetheless, they are quite close to control constructions.

Coreference: passive participles. If the participle is in the position a) or b), there is a grammatical coreference relation between the Actor or Patient of the participle (or another argument corresponding to the subject of the participle) and the noun with which the argument agrees. Cf.:

- \{\#Cor.PAT\} Oslněn.COMPL svobodomyslným hartusením nevšimne si \{\#PersPron.ACT\}, že dvě stě nezávislých kandidátů nepředstavuje nic jiného než dvě stě politických stran. (=Amazed by ..., he is not going to notice that...)

The Patient (subject) of the participle oslněn (=amazed) corefers with the (non-expressed) Actor of the main verb. Cf. Fig. 9.14.

Another example:
Mužstvo zůstává neporaženo.PAT \{\#Cor.PAT\} i po tomto napínavém zápase. (=The team stays undefeated also after this match)

NB! Passive participles can also be root nodes of dependent clauses (e.g.: Dům, ač zadlužen.CNCS, byl prodán velmi rychle (=The house, although indebted, was sold very quickly); see Section 6.5.1.2, "Dependent participial constructions"). Also in these cases, the grammatical coreference between the subject of the participle and the noun with which it agrees is represented in the tree.

Coreference: transgressives. Transgressives are only used as predicative complements (a). With predicative complements expressed by active transgressives it is always the Actor of the transgressive and the subject of the governing verb that corefer. When the predicative complement is expressed by a passive transgressive, there is a grammatical coreference relation between the Patient of the transgressive (or another argument corresponding to the subject) and the subject of the main verb. Cf.:

- \{\#PersPron.ACT\} Kritizovali hvězdnýsystém, věřice.COMPL \{\#Cor.ACT\} v autentičnost dosud neokoukaných tváří, které se však záhy také staly hvězdami. (=They criticised the system of stars, believing in fresh faces...)

The Actor (subject) of the transgressive věřice (=believing) corefers with the (non-expressed) subject of the main verb. Cf. Fig. 9.15.

Another example:
Hráč odcházel, byv poražen.COMPL \{\#Cor.PAT\}. (=The player, having been defeated, went away)
Elided transgressive constructions are treated in the same way (see also Section 6.10.2.2, "Predicative complement expressed by a transgressive (gerund)").

There is no coreference if the transgressive is frozen, non-agreeing (e.g.: takřikajic (=so_to_speak), nelchtě ( $=$ willy nilly), stoje (=standing), leže (=lying), kleče (=kneeling) etc.; see Section 6.5.1.3.1, "Frozen transgressive constructions").

Coreference: infinitives (so called Slavic accusative + infinitive). If the infinitive is in the position a) or b), there is a grammatical coreference relation between the subject of the infinitive and the object of the main verb, which is in the accusative. Cf.:

- Honza zastihl Hanku \{\#Cor.ACT\} běhat.COMPL kolem rybnika. (=Honza saw Hanka run around the lake)

The subject (Actor) of the infinitive běhat corefers with the (accusative) object (Patient) of the verb the infinitive depends on (Hanka). Cf. Fig. 9.16.

- Honza slyšel Karla \{\#Cor.ACT\} otvírat.EFF dveře. (=Honza heard Karel open the door)

Honza slyšel otvírat.EFF dveře. (=Honza heard the door open)
The subject (Actor) of the infinitive otvirat corefers with the (accusative) object (Patient) of the verb the infinitive depends on (Karel) or with the general Patient. Cf. Fig. 9.17 and Fig. 9.18.

Note: This type of construction does not belong to regular cases of control. What is special about these constructions (unlike with control) is that the position of the infinitive can be occupied by a dependent clause as well; in such a case, there is an obligatory grammatical coreference relation between the subject of the governing verb of the clause and the accusative (see below). However, we are aware of the fact that these cases have a lot in common with control constructions.

Coreference: dependent clauses. The position of the infinitive in a) and b) can be also occupied by a dependent clause. There is a grammatical coreference relation between the non-expressed subject of the governing verb of the dependent clause and the accusative object of the governing verb of the governing clause, then. Cf.:

- Vzpomináte si na Miroslava Macháčka, jak naléhavě vančurovsky \{\#Cor.ACT\} šeptal.COMPL ve středometrážním dokumentu Praha, neklidné srdce Evropy režisérky Věry Chytilové? (=Do you remember MM, how he whispered...)

The subject (Actor) of the verb šeptat (=whisper) corefers with the accusative object (Patient) of the verb on which the dependent clause depends (Macháceek). Cf. Fig. 9.19.

- Honza viděl Hanku, jak \{\#Cor.ACT\} běhá.EFF kolem rybnika. (=Honza saw Hanka running (lit. how she_was_running) around the lake)

The subject (Actor) of the verb běhat (=run) corefers with the accusative object (Patient) of the verb on which the dependent clause depends (Hanka).

Figure 9.14. Coreference with verbal modifications that have dual dependency


Oslněn svobodomyslným hartusením nevšimne si, že dvě stě nezávislých kandidátů nepředstavuje nic jiného než dvě stě politických stran. (=lit. Amazed (by) liberal clamouring not_notices REFL, that two hundred independent candidates not_presents nothing else than two hundred political parties)

Figure 9.15. Coreference with verbal modifications that have dual dependency


Kritizovali hvězdný systém, věrice v autentičnost dosud neokoukaných tvárí, které se však záhy také staly hvězdami. (=lit. (They) criticised star system, believing in authenticity (of) until_now fresh faces, which REFL though soon also became stars)

Figure 9.16. Coreference with verbal modifications that have dual dependency


Honza zastihl Hanku běhat kolem rybnika. (=lit. Honza found Hanka run around lake)
Figure 9.17. Coreference with verbal modifications that have dual dependency


Honza slyšel Karla otvírat dveře. (=lit. Honza heard Karel open door)

Figure 9.18. Coreference with verbal modifications that have dual dependency


Honza slyšel otvírat dveře. (=lit. Honza heard open door)

Figure 9.19. Coreference with verbal modifications that have dual dependency


Vzpomínáte si na Miroslava Macháčka, jak naléhavě vančurovsky šeptal ve středometrážním dokumentu Praha, neklidné srdce Evropy režisérky Věry Chytilové? (=lit. (Do you) remember REFL - MM, how urgently Vančura-like whispered in - document Praha, neklidné srdce Evropy (by) director Věra Chytilová?)

### 9.2.4. Control

### 9.2.4.1. The notion of control

Control is a type of grammatical coreference that arises with certain verbs, called control verbs. The coreference relation between the controller and controllee is either obligatory or optional and it holds that:

- the controller is a member of the valency frame of the governing verb: $A C T, ~ P A T, ~ A D D R, ~ O R I G$, possibly also the obligatory adjunct LOC; in certain cases also BEN (see also Section 9.2.4.1.1, "Controller").
- the controllee is a member of the valency frame of the infinitive (or deverbal noun) dependent on the control verb. It is usually the non-expressed subject of the infinitive (i.e. the Actor with active infinitives and Patient or Addressee with passive infinitives). The controllee's reference is obligatorily identical to that of the controller and it cannot be expressed at the surface (for more see Section 9.2.4.1.2, "The controllee").
- the infinitive (one modification of which is the controllee) is a valency (or typical) modification of the control verb. Usually, it has an argument functor (most often PAT), however, adjunct functors are sometimes also possible (see Section 9.2.4.1.3, "Infinitive a valency modification of which is controlled").

It is possible to find control also in constructions in which the control verb or the infinitive is nominalized - for more on this see Section 9.2.4.3, "Types of control constructions and the issue of nominalizations".

Representing control in the tectogrammatical trees. The controllee is assigned the $t$-lemma substitute \#Cor. The grammatical coreference between the controller and controllee is marked in the following way: the coref_gram.rf attribute of the controllee contains the identifier of the controller. Cf.:

- Pokud dámy postupují podobně, \{\#PersPron.ACT\} začnou brzy \{\#Cor.ACT\} vyhližet jako pánové. (=If ladies do the same they soon start to look like gentlemen)

The Actor of the infinitive vyhližet (=look like) is controlled by the Actor of the verb začít (=begin). Cf. Fig. 9.20.

The controller: the Actor of the control verb začit.
The controllee: the Actor (subject) of the infinitive vyhližet.

- Navíc mám Spartě co odvádět za to, že mí.ADDR préd lety umožnila \{\#Cor.ACT\} dostat se do velkého fotbalu. (=...it helped me to get to professional football)

The Actor of the infinitive dostat se (=get) is controlled by the Addressee of the verb umožnit (=enable). Cf. Fig. 9.21.

The controller: the Addressee of the control verb umožnit.
The controllee: the Actor (subject) of the infinitive dostat se.

Figure 9.20. Control


Pokud dámy postupují podobně, začnou brzy vyhližet jako pánové. (=lit. If ladies proceed similarly, (they) start soon look like gentlemen)

Figure 9.21. Control


Navic mám Spartě co odvádět za to, že mi před lety umožnila dostat se do velkého fotbalu. (=lit. Moreover (I) have to_Sparta what to_return for that, that me before years enabled to_get REFL to big football)

Control verbs. Control is given by the lexical properties (meaning) of the main verb. It is necessary to distinguish between individual meanings of the verb in question. Control is always connected to certain meanings of the verb (represented by different valency frames). Cf.:

- Dala ditě spát. (=She put the child to sleep)

The valency frame for this meaning of dát: $\operatorname{ACT}(.1) \operatorname{PAT}(.4) \operatorname{EFF}(. f)$
In this meaning, dát $(=p u t)$ is a control verb. The Actor of the infinitive spát (=sleep) is controlled by the Patient of the verb dát.

- Dala dité léčit. (=She had the child treated/sent the child to the doctor)

The valency frame for this meaning of dát: $\operatorname{ACT}(.1) \operatorname{PAT}(. f)$
In this meaning, dát (=let) is not a control verb. No modification of the infinitive léčit (=cure) is controlled by any modification of the verb dát (the noun in the accusative belongs to the valency frame of the dependent infinitive.)

For the individual types of control verb see Section 9.2.4.2, "Types of control verbs".
!!! We assume that it is in principle possible to make a list of control verbs. So far, only several partial lists of control verbs have been made; these can be found in the appendix Appendix 5, Verbs and nouns of control. As for the verbs listed in these lists, it can be guaranteed that control is always represented properly in the tectogrammatical trees. As for other control verbs, which are not listed, control is not represented consistently in the trees.
!!! Information concerning control properties of the verb is not included in the valency lexicon either.
Obligatory and optional control. There is obligatory and optional control:

- obligatory control is a kind of control that is always present with a given meaning of a verb.

Obligatory control is involved e.g. in one of the meanings of the verb minit (=mean), namely "zamýšlet (=intend)". Cf.:

- the verb minit is always a control verb:


## Minil přijít. (=He meant to come)

The Actor of the infinitive prijit is controlled by the Actor of the verb minit.

- the verb minit cannot be used in a non-control context:
*Minil, aby maminka přišla. (=*He meant for the mum to come)
- optional control is a kind of control that does not have to be present with a given meaning of a verb.

Optional control is involved e.g. with the verb práat si (=wish) or the verbonominal predicate být výhodný (=be convenient). Cf.:

- the verb přát si used in a control context:


## Přál si odejít. (=He wished to leave)

The Actor of the infinitive odejít (=leave) is controlled by the Actor of the verb přát si.

- the verb prát si used in a non-control context:

Přál si, aby přišla maminka. (=He wished for the mum to come)

- the predicate být výhodný used in a control context:

Hněvat se na to, že vývoz surovin pokračuje, není pro nás výhodné. (=To be angry... is not convenient for $u s$ )

The Actor of the infinitive hněvat se (=to be angry) is controlled by the Beneficiary pro nás (=for us).

- the predicate být výhodný used in a non-control context:

Není jasné, zda bude pro český tenis výhodnější smlouvu vypovědět či nikoli. (=... whether it is more convenient for the Czech tennis to terminate the contract)

The Actor of the infinitive vypovědět (=terminate) is not controlled by the Beneficiary pro česk'́ tenis (=for the Czech tennis).

Double control. In some cases, the verb can have so called double control, i.e. there are two possibilities to interpret a given structure (depending on the lexical content): either the controller is e.g. the Actor, or it is another valency modification of the control verb (usually the Adressee). Cf.:

- Studenti slíbili učitelům přijít včas. (=The students promised their teachers to come in time)

The Actor of the infinitive prijít (=come) is controlled by the Actor of the verb slibit (=promise).

- Rodiče slibili dětem strávit týden u moře. (=The parents promised the children to spend a week by the sea)

The Actor of the infinitive strávit (=spend) is controlled by the Addressee of the verb slibit.
Two simultaneous coreference relations. Verbs allowing for two infinitive modifications are usually not control verbs (see Section 9.2.4.3.1, "Constructions with an infinitive that do not involve control"). In exceptional cases, however, such a verb can take part in two coreferential relations (control) at the same time (there is one controller but two controllees in the structure). An example is vyžadovat (=demand/require). Cf.:

- Ziskat americké občanství vyžaduje od zájemcio umět mluvit anglicky. (=To get the American citizenship, it is required from the applicants to be able to speak English)

The Origo of the verb vyžadovat (=demand) controls the Actor of the infinitive ziskat (=get), as well as the Actor of the infinitive umět (=be capable of)). Cf. Fig. 9.22.

Figure 9.22. Two simultaneous coreference (control) relations


Ziskat americké občanství vyžaduje od zájemcuu umět mluvit anglicky. (=lit. To_get American citizenship requires from applicants to_be_able to_speak English)

### 9.2.4.1.1. Controller

The controller can be: ACT, PAT, ADDR or ORIG). Cf.:

- Podnik.ACT plánoval zvýsit výrobu. (=The company planned to increase the production)

The Actor of the infinitive zvýšit (=increase) is controlled by the Actor of the verb plánovat (=plan). Cf. Fig. 9.23.

- Rodiče ho. PAT poslali nakoupit. (=The parents sent him (go) shopping)

The Actor of the infinitive nakoupit (=go shopping) is controlled by the Patient of the verb poslat (=send). Cf. Fig. 9.24.

- Rodiče Jirkovi.ADDR zakázali jít tam. (=The parents have forbidden Jirka to go there)

The Actor of the infinitive jít (=go) is controlled by the Addressee of the verb zakázat (=forbid). Cf. Fig. 9.25.

In exceptional cases, the controller can also be an (obligatory) adjunct (LOC); cf.:

- Být dobře zapsán u šéfa v něm. LOC vyvolávalo pocit hrdosti (=To be in good relations with the boss made him proud).

The Patient of the infinitive být zapsán (=lit. be recorded) is controlled by the locative adjunct. Cf. Fig. 9.26.

In some constructions in which the infinitive (one modification of which is controlled) depends on the verbal part of a verbonominal control predicate as its Actor (and in constructions derived from this one), the controller is the adjunct BEN; cf.:

- Je škoda \{\#Benef.BEN\} ochudit se o tolik vzácných látek. (=It is a pity to be losing so many valuable substances)

The Actor of the infinitive ochudit se (=to lose) is controlled by the modification with the BEN functor. Cf. Fig. 9.27.

An adjunct as a controller is a specific type of modification. The node for such a modification is always inserted in the tree if not present at the surface level. It is the only case when a non-obligatory adjunct is added to a tectogrammatical tree. Since it is always a Beneficiary, a special t-lemma substitute was introduced for such a controller: \#Benef.

A Beneficiary is the controller in the constructions described in Section 9.2.4.4.4.2, ""Být" + noun the Actor of which can be expressed by an infinitival construction", Section 9.2.4.4.4.3, ""Být" + noun that cannot be modified by an infinitive", Section 9.2.4.4.4.4, ""Být" + modal or evaluating adjective (adverb)", Section 9.2.4.4.4.5, ""Být" + adjective or noun of "individual experience"", Section 9.2.4.4.4.6, ""Být" + predicative adverb" and Section 9.2.4.4.5, "Infinitive dependent on "lze" and control in constructions of the type "Je vidět Sněžku"" (and in the constructions derived from these).

The controller can also be represented by a whole clause (usually a subject clause). In these cases, there is a coreference relation between the controllee and the effective root node of the dependent clause. Cf.:

- Kdo nepožaduje.AСT nadstandardní služby, může se zaplacením poplatku otálet. (=Those who do not require more than standard service can be slow to pay)

The Actor of the nominalized infinitive zaplatit (=pay) (the Actor of the noun zaplaceni) is controlled by the Actor of the predicate moci otálet (=be slow), which is a dependent clause. Cf. Fig. 9.28.

Figure 9.23. ACT as the controller


Podnik plánoval zvýšit výrobu. (=lit. Company planned to_increase production)
Figure 9.24. PAT as the controller


Rodiče ho poslali nakoupit. (=lit. Parents him sent to_shop)

Figure 9.25. ADDR as the controller


Rodiče Jirkovi radili jít tam. (=lit. Parents to_Jirka advised to_go there)
Figure 9.26. LOC as the controller


Být dobře zapsán u šéfa v něm vyvolávalo pocit hrdosti (=lit. To_be well registered with boss in him caused feeling (of) pride).

Figure 9.27. BEN as the controller


Je škoda ochudit se o tolik vzácných látek. (=lit. Is pity to lose REFL - so many valuable substances)

Figure 9.28. A dependent clause as the controller


Kdo nepožaduje nadstandardní služby, může se zaplacením poplatku otálet. (=lit. Who not_requires super-standard service, can with paying (of) fee be_slow)

### 9.2.4.1.2. The controllee

The controllee is always a valency modification of the infinitive (or deverbal noun) dependent on the control verb; most often, it is the Actor, however, it can also be the Patient or Addressee, too (esp. with passive infinitives). This valency modification corresponds to the subject of the infinitive. Cf.:

- Honza se bál být spatřen \{\#Cor.PAT\}. (=Honza was afraid to be seen)

The Actor of the predicate bát se (=be afraid) controls the Patient of the infinitive být spatřen (=be seen). Cf. Fig. 9.29.

- Potřebujete poradit \{\#Cor.ADDR\}? (=Do you need advice (lit. to be advised)?)

The Actor of the predicate potrebovat (=need) controls the Addressee of the infinitive poradit (=advise). Cf. Fig. 9.30.

Figure 9.29. PAT as the controllee


Honza se bál být spatřen. (=lit. Honza REFL was_afraid to_be seen)

## Figure 9.30. ADDR as the controllee



Potřebujete poradit? (=lit. (Do you) need to_advise?)
Subject of the infinitive. The controllee is usually the non-expressed subject of the infinitive. The controllee has obligatorily the same reference as the controller and it is also obligatorily non-expressed. Therefore, not every infinitival subject is a controllee. Non-expressed subjects of infinitives can also have the t-lemma substitute \#Gen or \#PersPron. Moreover, subjects of infinitives can sometimes
be expressed at the surface level. A survey of possible t-lemmas of expressed as well as non-expressed subjects of infinitives is in Table 9.4, "Subjects of infinitives: possible t-lemmas".

Table 9.4. Subjects of infinitives: possible t-lemmas

| \#Cor | the subject cannot be ex- <br> pressed | the subject of the infinitive is in a control relation with a <br> modification of the main verb |
| :--- | :--- | :--- |
| \#Gen | the subject is not ex- <br> pressed | the subject of the infinitive is a general argument (see <br> Section 6.2.4.1, "General arguments and unspecified <br> Actors") |
| \#PersPron | the subject is not ex- <br> pressed | it is possible to find the antecedent of the subject but it <br> is not grammatical but rather textual coreference; see <br> Section 9.3, "Textual coreference") |
| the t-lemma of a <br> noun/\#Per- <br> sPron | the subject is expressed | the subject of the infinitive is expressed by a full noun <br> or personal pronoun; these are the cases of infinitives <br> expressing a condition (see Section 6.5.1.1.1, "Condition <br> expressed by an infinitive") |

NB! The t-lemma substitute \#Cor was introduced primarily for the controllee in control constructions. So far, it has been used also for non-expressed subjects of non-finite verb forms in constructions with dual dependency. Such constructions involve grammatical coreference but not control since the dependent non-finite verb form is neither a valency nor typical modification of the main verb (on grammatical coreference in these constructions see Section 9.2.3, "Coreference with verbal modifications that have dual dependency").

### 9.2.4.1.3. Infinitive a valency modification of which is controlled

The infinitive a valency modification of which is controlled is usually a valency modification (the Actor, Patient, Effect) of the (governing) control verb. Cf.:

- Nevyplácí se mu pracovat.ACT (=It doesn't pay him to work)

The infinitive pracovat (=work), the Actor of which is controlled by the Patient of nevyplácet se (=not pay), is in the position of its Actor. Cf. Fig. 9.31.

- Vláda zamýšlí snižit.PAT daně. (=The government intends to lower the taxes)

The infinitive snižit (=lower), the Actor of which is controlled by the Actor of zamýšlet (=intend), is in the position of its Patient. Cf. Fig. 9.32.

Non-valency infinitives a modifications of which are controlled are especially infinitives with the INTT functor (for a discussion regarding the INTT functor w.r.t. valency, see Section 6.2.3.1.3.5, "Status of the modification expressing "intention" (INTT) after verbs of "motion""). Cf.:

- Přišel pomoci. INTT (=He came to help)

The infinitive pomoci (=help), the Actor of which is controlled by the Actor of prijít (=come), is in the position with the INTT functor. Cf. Fig. 9.33.

Another example:
Byli jsme to obhlédnout.INTT (=We went to look around the place) Fig. 9.34
NB! Cases of so called Slavic accusative + infinitive (Slyšel Karla otvírat.EFF dveře. (=He heard Karel open the door)) are not regular cases of control. See Section 9.2.3, "Coreference with verbal modifications that have dual dependency".

Figure 9.31. Control: infinitive as the Actor


Nevyplácí se mu pracovat. (=lit. Not_pays REFL him to_work)
Figure 9.32. Control: infinitive as the Patient


Vláda zamýšlí snižit daně. (=lit. Government intends to_lower taxes)

Figure 9.33. Control: infinitive as INTT


Přišel pomoci. (=lit. (He) came to_help)
Figure 9.34. Control: infinitive as INTT


Byli jsme to obhlédnout. (=lit. (We) were AUX it look_around)
NB! Also some verbs are considered control verbs which do not have infinitives as their modifications, but which are rather modified by a prepositional phrase with a deverbal noun one modification of which is controlled; e.g.: stihat (=prosecute), podezírat (=suspect), obvinit (=blame), omluvit se (=apologize) (see Section 9.2.4.6.2, "Control verbs that cannot be modified by an infinitive"). The
deverbal noun (a modification of which is controlled) can also occupy the position of a non-valency (just typical) modification. Cf.:

- Stihají ho. PAT pro falšování.CAUS dokladỉ. (=They are prosecuting him for falsifying the documents)

The Actor of the noun faľ̌ování (=falsifying) (which is in the position of CAUS) is controlled by the Patient of the verb stihat (=prosecute).

### 9.2.4.2. Types of control verbs

Both one-word and multi-word predicates can be control predicates (see Section 6.9, "Multi-word predicates"). As for multi-word predicates, there are some complex predicates that belong to control predicates (see Section 6.9.3, "Complex predicates"), as well as some verbonominal predicates (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)") and verbal idioms (phrasemes) (see Section 6.8.2, "Verbal idioms").

From the semantic point of view, also the following semantically homogeneous groups of verbs are among others - regarded as control verbs:

- modal verbs.

Combinations of modal verbs and infinitives are analyzed according to the rules on representing modality (see Section 6.9.1.1, "Modal predicates"). In cases in which the modal verb is not hidden (e.g. in combinations of a modal verb with a negated verb in infinitive) the construction is treated as a construction involving control. The controllee is usually the Actor or Patient in the position of the non-expressed subject of the infinitive. The controller is the Actor of the modal verb. Cf.:

- Mưže nepřijít. (=lit. (She) can not_come)

The subject of the infinitive neprijít (=not come) (the Actor) is controlled by the Actor of the verb moci (=can).

## - phase verbs.

Phase verbs (see Section 6.9.1.2, "Phase predicates") are control verbs in those cases in which their meaning corresponds to the valency frame with an infinitive in the Patient position. The controllee is usually the Actor or Patient in the position of the non-expressed subject of the infinitive. The controller is the Actor of the phase verb. Cf.:

- Začal čist.PAT (=He started to read)

The subject of the infinitive čist (=read) (the Actor) is controlled by the Actor of the verb začít (=begin).

Phase verbs can also have an infinitive as their Actor; then, no control is involved. Srov.:

- Začiná pršet.ACT (=It's beginning to rain)

The infinitive pršet (=rain) has no subject. The verb začínat (=begin) is used but no control is involved.

- Leckomu se začíná o tom zdát.ACT (=Many people begin to dream about it)

The Actor of the infinitive zdát se (=dream) is expressed by the dative leckomu (=to many people). The verb začinat (=begin) is used without control being involved.

There can also be more phase verbs in a single sentence; then it is necessary to determine which of their uses is involved in each case; e.g. in Měl by konečně začít přestat kouřit. (=He should begin to stop smoking) both phase verbs, začít (=begin) as well as prestat (=stop) are used in their control
use. On the other hand, in člověk, jehož právě začala přestávat bolet hlava (=the person whose headache has just started to cease) both phase verbs are used in their non-control use.

## - verbs of "intention" and "responsibility acceptance".

Verbs of "intention" are considered control verbs although construction with these verbs can sometimes be interpreted such that the person who has the intention to do something does not have to perform the given activity himself/herself. However, the person is responsible for the action. The potential non-identity of the agents is neglected as carrying out the action is the responsibility of the person who has the intention to do it. Cf.:

- Vedení sekce plánuje vyklidit knihovnu. (=The management of the section plans to clear out the library)

The Actor of the infinitive vyklidit (=clear out) is analyzed as the controllee of the Actor of the verb plánovat (=plan), although the person who has the intention to clear out the library does not have to be the one who is actually going to do it.

- Pan Moric si vytkl za cil proniknout na neobsazené trhy přijatelné pro Radu bezpečnosti. (=Mr. Moric set as his goal to get to the markets...)

From the context, we know that it is going to be arms factories that will be getting to the markets, and still the Actor of the infinitive proniknout (=penetrate) is analyzed as controlled by the Actor of the verb vytknout si (=set).

The annotation of certain metonymical uses of some other verbs of "responsibility acceptance" is similar to that of the verbs of "intention"; the identity of the agents of the governing verb and the dependent infinitive does not have to be uncontroversial, nevertheless, such constructions are analyzed as control constructions. Cf.:

- Slibil zapůjčit promítačku. (=He promised to lend us the projector)

The Actor of the infinitive zapiujcit (=lend) is analyzed as controlled by the Actor of the verb slíbit (= promise), though the construction can also be interpreted as Slibil zajistit, že někdo jiný zapůjčí promitačku (=He promised to arrange that somebody else lend us the projector).

Multi-word control predicates. Multi-word predicates constitute a special group of control predicates. All (synonymous) multi-word paraphrases of control verbs are considered complex control predicates. These are especially:

## - quasi-modal and quasi-phase verbs.

For more on quasi-modal and quasi-phase verbs, see Section 6.9.2.1, "Quasi-modal and quasiphase verbs".

## - verbs with the meaning "enabling somebody to do something"

Verbs with the meaning "enabling sb to do sth" are control verbs both in their active (i.e. "sb enabled sb else to do sth"), and passive meaning (i.e. "sb was allowed/enabled to do sth"); e.g. dát někomu šanci udělat něco (=to give sb the chance to do sth), but also dostat (od někoho) šanci udělat něco (=to get the chance to do sth (from sb)), similarly dát někomu přiležitost udělat něco (=to provide sb the opportunity to do sth) and dostat (od někoho) přiležitost udělat něco (=to get/have the opportunity to do sth (from sb)).

- verbal idioms (phrasemes).

For example: mít v plánu (=to plan), mít v úmyslu (=intend). For more on verbal idioms, see Section 6.8.2, "Verbal idioms".

## Coreference

Control nouns and adjectives. There are also control nouns and adjectives - the result of nominalization of control predicates. Cf.:

- Odhodlal se podat trestní oznámení. (=He decided to lodge a complaint)

The Actor of the infinitive podat (=lodge) is controlled by the Actor of the verb odhodlat se (=decide).

- jeho odhodlání podat trestní oznámení (=his decision to lodge a complaint)

The Actor of the infinitive podat is controlled by the Actor of the noun odhodlání (=decision).

- člověk odhodlaný podat trestní oznámení (=the person determined to lodge a complaint)

The Actor of the infinitive podat is controlled by the governing noun of the adjective odhodlany' (=decided) (see also Section 6.2.3.3, "Valency of adjectives").

Typical control nouns are nouns that are part of complex control predicates; e.g.: odvaha (=courage), chut' (=apprx. desire), šance (=chance), přiležitost (=opportunity), povinnost (=obligation) etc. A specific group of control nouns are nouns of "intention", e.g.: úmysl (=intention), zámér (=aim), plán (=plan) etc. Nouns of the type nápad (=idea), idea, myšlenka (=thought) etc. are not considered nouns of "intention". There is no control relation involved in constructions with these nouns. Cf.:

- Petriov nápad založit nadaci se Pavlovi libi. (=Pavel likes Peter's idea to found a foundation)

The Actor of the infinitive založit (=found) is assigned the \#Gen t-lemma - if it is the case of the general (unspecified) Actor - or it gets the \#PersPron t-lemma - if it is obvious from the context which person (e.g. Petr) is going to found the foundation.

### 9.2.4.3. Types of control constructions and the issue of nominalizations

In most cases of control constructions, it is possible to nominalize the governing verb, as well as the infinitive. Therefore, the following types of control constructions can be distinguished:

1. an infinitive (a modification of which is controlled) depends on a verbal control predicate (see Section 9.2.4.4, "Type 1: Infinitive dependent on a verbal control predicate"),
2. an infinitive depends on the nominalized control predicate, i.e. on a deverbal noun or adjective (see Section 9.2.4.5, "Type 2: Infinitive dependent on a nominalized control predicate"),
3. a deverbal noun (a modification of which is controlled) depends on a verbal control predicate (see Section 9.2.4.6, "Type 3: Noun dependent on a verbal control predicate"),
4. a deverbal noun depends on a nominalized control predicate (see Section 9.2.4.7, "Type 4: Noun dependent on a nominalized control predicate"),

Most control verbs can be found in all the four types of construction. Cf.:

- Slibil napsat dopis. (=He promised to write a letter)

An infinitive depending on a verbal control predicate (type 1).

- slib napsat dopis (=the promise to write a letter)

An infinitive depending on a nominalized verbal control predicate, i.e. on a deverbal noun (type 2 ).

- $\quad \underline{\text { Slibil napsání dopisu. (=lit. (He) promised writing letter) }}$

A deverbal noun, i.e. a nominalized infinitive depending on a verbal control predicate (type 3).

- slib napsání dopisu (=lit. promise (of) writing letter)

A deverbal noun, i.e. a nominalized infinitive, depending on a nominalized control predicate (type 4).

Some control verbs (e.g.: přisoudit (=ascribe/attribute), osočit (=smear/malign), podezirat (=suspect), stihat (=prosecute), omluvit se (=apologise)) cannot be modified by an infinitive at all (see Section 9.2.4.6.2, "Control verbs that cannot be modified by an infinitive"). Hence, they only occur in constructions of type 3 and 4; e.g.:

Podezíral ho z krádeže. (=He suspected him of theft) (It is not possible to say: *Podezíral ho krást. (=lit. (He) suspected him to_steal))
podezření z krádeže (=suspicion of theft) (Not: *podezření krást (=lit. suspicion to_steal))
In exceptional cases, no nominalization of the infinitive (a modification of which is controlled) is possible and no nominalization of the governing verb either. Such control verbs can, then, only occur as type 1, e.g:

Viktor se zdá být chytrý. (=Viktor seems to be clever)
Nominalization-related problems. Nouns are significantly vaguer than verbs (an infinitive); thus the decision whether a given combination of a verb with a noun (or a noun with a noun) is really a control construction is accompanied by several problems:

- it is not necessarily clear whether the given combination verb + noun has been derived from a combination verb + infinitive or rather verb + subordinate clause. Compare the two meanings of:
- Mikolášek se vyhýbá jednoduchému ztvárnění svých nápadi̊. (=Mikolášek avoids simple representation of his ideas)
$=$ Mikolášek does not want to represent his ideas simply.
In this interpretation, the sentence Mikolášek se vyhýbá jednoduchému ztvárnění svých nápadů involves a control relation between the Actor of the nominalized infinitive ztvárnit (=represent) and the Actor of the verb vyhybat (=avoid).
- Mikolášek se vyhýbá jednoduchému ztvárněni svých nápadů.
$=$ Mikolášek does not want anybody/somebody to represent his ideas simply.
In this interpretation, no control relation is present.
- a noun may not express the reflexivity of its base verb. Cf. the two meanings of:
- jeho rozhodnutí zrušit výrobu (=his decision to stop the production)
$=$ he decided to stop the production
In this interpretation, jeho rozhodnutí zrušit výrobu (=to stop the production) involves a control relation between the Actor of the infinitive zrušit ( $=$ stop) and the Actor of the nominalized verb rozhodnout se (=decide). The verb rozhodnout se is a control verb.
- jeho rozhodnutí zrušit výrobu
$=$ he decided that someone else should stop the production
In this interpretation, there is no control relation in present. The verb rozhodnout is not a control verb.

In cases when it is hard or impossible to decide which of the cases we are dealing with, we assume that the noun is derived from the non-reflexive verb.

Sections Section 9.2.4.4, "Type 1: Infinitive dependent on a verbal control predicate", Section 9.2.4.5, "Type 2: Infinitive dependent on a nominalized control predicate", Section 9.2.4.6, "Type 3: Noun dependent on a verbal control predicate" and Section 9.2.4.7, "Type 4: Noun dependent on a nominalized control predicate" discuss individual types of control constructions in more detail; especially more problematic cases with complex control predicates (subcategory of type 1) and types 2 through 4 are described there.

### 9.2.4.3.1. Constructions with an infinitive that do not involve control

Not every construction with an infinitive is necessarily a control construction. There is no control involved in the following cases:

Rozhodl zrušit výrobu. (=He decided to stop the production; meaning: that someone else should stop the production)

Zakotvit do ústavy trvale vyrovnaný rozpočet nepovažuje za nejšíastnější mistopředseda sněmovny Jiři Vlach. (=JV doesn't find it wise to lay down the requirement for a permanently balanced budget in the constitution)

Proto považujeme za kličovou otázku tento systém změnit. (=Therefore, we consider it necessary to change the system)

Dala dité léčit. (=lit. (She) had (the) child treat)
This also concerns:

- constructions with verbs having two infinitival modifications. These are especially být (=be) and znamenat (=mean).

Examples:
Napsat článek pro mě znamená měsíc nedělat nic jiného. (=To write an article means not to do anything else for a month)

Ustupovat jim znamená vracet se ke státem řizené ekonomice. (=To give in means to come back to the state-governed economics)

Dělat to takto by bylo nošením dřiví do lesa. (=To do it this way would be carrying coals to Newcastle)

Nemoci di̛věřovat je jako pobývat u nepřitele. (=Not to be able to trust is like to be with an enemy)
Nechat se ošidit je jako dostat facku. (=To be cheated is like getting (to get) a slap in the face)
For more on the verb vyžadovat (=demand), see Section 9.2.4.1, "The notion of control".

- constructions in which the infinitive occurs in place of a finite verb form (see Section 6.4.1, "Verbal clauses").

Examples:
Ale proč o tom uvažovat. (=Why should we think about it; lit. why to think about it)
Pro měz toho vyplývá jediné: Nikdy nesvolit. (=lit. Never to agree)

- constructions in which the infinitive occupies the position of the Actor of "být" in its existential or substitute use (not the type "Je vidět Sněžku (=It is possible to see Sněžka)" - see Section 8.2.1.1, "Existential "být""" and Section 8.2.1.2, "Substitute "být"").

Examples:
Je co čist. (=There is something to read)
Ted' je pozdě litovat. (=Now it's late to be sorry)

The newly established node for the non-expressed subject of the infinitive (or its nominalization) has the \#Gen or \#PersPron t-lemma, depending on the type of ellipsis and the relevant coreference relation (see also Section 6.12.2, "Ellipsis of the dependent element").

### 9.2.4.4. Type 1: Infinitive dependent on a verbal control predicate

This is the basic type of control constructions.
Within this type, there are more complex structures - the infinitive is dependent on a multi-word control predicate: a complex control predicate, a verbal idiom or a verbonominal control predicate. This mainly concerns quasi-modal and quasi-phase verbs (see Section 6.9.2.1, "Quasi-modal and quasi-phase verbs"), which form a special subtype of complex and verbonominal predicates. (For more on multiword predicates, see Section 6.9, "Multi-word predicates".)

The following subsections describe these types of more complex control constructions:

- an infinitive depends on the nominal part of a complex control predicate (see Section 9.2.4.4.1, "Infinitive dependent on the nominal part of a complex control predicate"),
- an infinitive depends on a verbal idiom, which is a control predicate (see Section 9.2.4.4.2, "Infinitive dependent on a verbal idiom (which is a control predicate)"),
- an infinitive depends on the nominal part of a verbonominal control predicate (see Section 9.2.4.4.3, "Infinitive dependent on the nominal part of a verbonominal control predicate"),
- an infinitive depends on the verbal part of a verbonominal control predicate (see Section 9.2.4.4.4, "Infinitive dependent on the verbal part of a verbonominal control predicate"),
- an infinitive depends on the predicate "lze"; control in the constructions of the type "Je vidět Sněžku" (see Section 9.2.4.4.5, "Infinitive dependent on "lze" and control in constructions of the type "Je vidět Sněžku"").
!!! There was a subsequent check on the representation of type 1 constructions with one-word verbal predicates (i.e. verb + infinitive) and a list of control verbs was created (see Section 5.1, "Verbs of control"). As for the verbs in this list, it can be guaranteed that control is marked in the tectogrammatical trees as well. As for other control verbs, which are not listed, control is not marked consistently in the trees.


### 9.2.4.4.1. Infinitive dependent on the nominal part of a complex control predicate

The nominal parts of complex predicates (esp. with quasi-modal and quasi-phase verbs; see Section 6.9.2.1, "Quasi-modal and quasi-phase verbs") are often nouns one modification of which can have the form of an infinitive. One of the infinitive's modifications (usually the one in the subject position) is often controlled by the Actor of the verbal part of the complex predicate.

The Actor of the verbal part of a complex predicate is also usually identical in reference with the Actor of the nominal part of the complex predicate. This is so called quasi-control; see Section 6.9.3.4.2, "Sharing of valency modifications between the verbal and nominal components (quasi-control)".

Cf.:

- (My.ACT) máme zámér.CPHR \{\#Cor.ACT\} vyklidit prostory. (=We have the intention to clear out the premises)

The Actor of the infinitive vyklidit (=clear out) (dependent on the nominal part of the predicate mit zámerr (=have the intention)) is controlled by the Actor of the verbal part of the complex control predicate ( $m y$ ), which is identical in reference with the non-expressed Actor of the noun zámér (=intention). Cf. Fig. 9.35.

More examples:
Petr dostal od šéfa rozkaz.CPHR \{\#Cor.ACT\} přijít. (=Petr got the order from his boss to come) Fig. 9.36

Šéf dal Petrovi rozkaz.CPHR \{\#Cor.ACT\} přijít. (=The boss gave Petr the order to come) Fig. 9.37
Nyní se (nám.ACT ) naskýtá možnost.CPHR \{\#Cor.ACT\} slyšet operu. (=Now we have the possibility to hear an opera) Fig. 9.38

Figure 9.35. Complex control predicates


Máme záměr vyklidit prostory. (=lit. (We) have intention to_clear_out premises)

Figure 9.36. Complex control predicates


Petr dostal od šéfa rozkaz přijít. (=lit. Petr got from boss order to_come)

Figure 9.37. Complex control predicates


Šéf dal Petrovi rozkaz přijīt. (=lit. Boss gave Petr order to_come)

Figure 9.38. Complex control predicates


Nyní se naskýtá možnost slyšet operu. (=lit. Now REFL comes possibility to_hear opera)
NB! Also with complex control predicates it is necessary to distinguish different meanings of the given predicate. E.g. mit zájem (=lit. have interest) has at least two meaning, which can be expressed by the following two verbs: chtit (=want) and zajimat se (=be interested in). Only in the first meaning, the predicate is a control predicate. Cf.:

- Měl zájem (= chtěl) studovat vysokou školu. (=He wanted to study at a university)

Měl zájem o studium na vysoké škole. (=He was interested in studying at a university)
The subject of the infinitive studovat (=study) (or its nominalization) is controlled by the Actor of the verb mit (=have).

- Měl zájem (= zajímal se) o synovo studium. (=He was interested/took interest in his son's studies)

No control is involved in this construction.
Then, there is also mit zájem na něčem (=take interest in sth/have a stake in sth), which is not a control predicate either.
!!! There was a subsequent check on the representation of type 1 constructions with complex predicates (i.e. complex predicate + infinitive) and a list of complex control predicates was created (see Section 5.1, "Verbs of control"). As for the verbs in this list, it can be guaranteed that control is marked in the tectogrammatical trees as well. As for other control verbs, which are not listed, control is not marked consistently in the trees.

### 9.2.4.4.2. Infinitive dependent on a verbal idiom (which is a control predicate)

Some verbal idioms (see Section 6.8.2, "Verbal idioms") are also control predicates.
For verbal idioms, it can be said that in principle no argument ever depends on the dependent part of the idiom. The infinitive, which could - in theory - be said to depend on the dependent part of the idiom, is therefore always represented as dependent on the verbal part of the idiom. One of the infinitive's modifications (usually the one in the subject position) is controlled, usually by the Actor of the verbal part (or more precisely, the Actor of the whole idiom). Srov.:

- Petr má v plánu.DPHR \{\#Cor.ACT\} vystudovat fakultu. (=Petr plans (lit. has in plan) to finish his studies at the faculty)

The Actor of the infinitive vystudovat (=finish studies) (dependent on the verbal part of the idiom, i.e. on mit) is controlled by the Actor of the verbal part of the idiom, the noun Petr. Cf. Fig. 9.39.

Another example:
(Já) nejsem s to.DPHR to \{\#Cor.ACT\} zvládnout. (=I am not able to handle it) Fig. 9.40

## Figure 9.39. Verbal idioms as control predicates



Petr má v plánu vystudovat fakultu. (=lit. Petr has in plan to_study faculty)

Figure 9.40. Verbal idioms as control predicates


Nejsem s to to zvládnout. (=lit. (I) not_am with it it handle)
!!! Control with verbal idioms is not represented consistently in the data; often, it is not represented at all.

### 9.2.4.4.3. Infinitive dependent on the nominal part of a verbonominal control predicate

Verbonominal predicates with certain adjectives (e.g.: schopný (=able), ochotný (=willing), povinen (=obliged), povinován, náchylný (=inclined), připravený (=ready), způsobilý (=qualified)), especially quasi-modal predicates (see Section 6.9.2.1, "Quasi-modal and quasi-phase verbs"), are multi-word control predicates with which the infinitive is the Patient of the non-verbal (here:adjectival) part of the predicate.

In order for the combination být + adjective to belong to this type, it is essential that the adjective have the possibility to be modified by an infinitive (the infinitive is the Patient of the adjective).

The controlled modification of the infinitive (usually the subject) is controlled by the Actor of the copula být, which is identical in reference with the Actor of the adjective. However, in accordance with the rules for representing valency modifications of deverbal adjectives (see Section 6.2.3.3, "Valency of adjectives"), there is no node for the Actor dependent on the adjective. Cf.:

- Pavel je ochoten $\{\#$ Cor.ACT $\}$ prijít. (=Pavel is willing to come)

The Actor of the infinitive přijít (=come) (dependent on ochoten (=willing)) is controlled by the Actor of the verbal part of the predicate, namely by the noun Pavel. Cf. Fig. 9.41.

More examples:
(On) už je rozhodnutý nás \{\#Cor.ACT\} opustit. (=He has decided (lit. is decided) to leave us) Fig. 9.42

Pavel to není schopný \{\#Cor.ACT\} zařidit. (=Pavel is not able to arrange it)
(My) jsme připraveni vám všechno \{\#Cor.ACT\} ukázat. (=We are ready to show you everything)
Figure 9.41. Verbonominal control predicates


Pavel je ochoten přijít. (=lit. Pavel is willing to_come)

Figure 9.42. Verbonominal control predicates


Už je rozhodnutý nás opustit. (=lit. Already (he) is decided us to_leave)
!!! Control with predicates with the copula být is not represented consistently in the data.

### 9.2.4.4.4. Infinitive dependent on the verbal part of a verbonominal control predicate

The infinitive that depends on the verbal part of a verbonominal predicate is the Actor of the predicate. In such cases, control is often optional. What is special about these constructions is that the controlled modification of the infinitive is often controlled - apart from the usual arguments - by the modification with the BEN functor, which is dependent on the non-verbal part of the verbonominal predicate.

The following types of verbonominal predicates belong to this category:

- the copula být + noun:
- a modal/evaluating noun of "intention" and "responsibility acceptance":
- the Patient of which can be expressed by an infinitive (see Section 9.2.4.4.4.1, ""Být" + noun the Patient of which can be expressed by an infinitival construction").

For example: je povinnost(i) (=lit. is duty); je úkol(em) (=lit. is task); je cil(em) (=lit. is goal); je problém(em) (=lit. is problem); je přáni(m) (=lit. is wish); je důvod(em) (=lit. is reason); je možnost(i) (=lit. is possibility).

- the Actor of which can be expressed by an infinitival construction (see Section 9.2.4.4.4.2, ""Být" + noun the Actor of which can be expressed by an infinitival construction").

For example: je nutnost( $(i)$ (=lit. is necessity).

- which cannot be modified by an infinitive (see Section 9.2.4.4.4.3, ""Být" + noun that cannot be modified by an infinitive").

For example: je hračka (=lit. is piece_of_cake).

- a noun of "individual experience" (see Section 9.2.4.4.4.5, ""Být" + adjective or noun of "individual experience""').

For example: je mi radostí (=lit. is to_me pleasure); je mi potěšenim (=lit. is to_me pleasure).

- the copula být + adjective (or adverb):
- a modal/evaluating adjective (or adverb; see Section 9.2.4.4.4.4, ""Být" + modal or evaluating adjective (adverb)").

For example: je možné (=is possible); je nutné (=is necessary), je jednoduché (=is easy); je nepostradatelné (=is indispensable).

- an adjective of "individual experience" (see Section 9.2.4.4.4.5, ""Být" + adjective or noun of "individual experience"").

Například: je mi trapné (=lit. is to_me embarrassing).
These verbonominal predicates the non-verbal part of which is assigned the PAT functor, are related to the types with (predicative) adverbs, which are assigned the CPHR functor (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)"):

- být + predicative adverb (see Section 9.2.4.4.4.6, ""Být" + predicative adverb").

For example: je nutno (=is necessary.adv); je možno (=is possible.adv); je třeba (=is necessary.adv); je mi zatě̌̌ko (=lit. is to_me hard.adv), je škoda (=lit. is pity), je hanba (=lit. is shame).

These constructions can be divided into four subtypes, according to the functor of the controller:

- the Actor is the controller (see Section 9.2.4.4.4.1, ""Být" + noun the Patient of which can be expressed by an infinitival construction"),
- the Origo is the controller (see Section 9.2.4.4.4.4, ""Být" + modal or evaluating adjective (adverb)"),
- the Addressee is the controller (see Section 9.2.4.4.4.6, ""Být" + predicative adverb"),
- the Beneficiary is the controller (see Section 9.2.4.4.4.2, ""Být" + noun the Actor of which can be expressed by an infinitival construction", Section 9.2.4.4.4.3, ""Být" + noun that cannot be modified by an infinitive", Section 9.2.4.4.4.4, ""Být" + modal or evaluating adjective (adverb)", Section 9.2.4.4.4.5, ""Být" + adjective or noun of "individual experience"" and Section 9.2.4.4.4.6, ""Být" + predicative adverb").

Also the constructions with lze (=is_possible) are similar, as well as the constructions consisting of být and an infinitive of sensory perception or cognition, which is modified by a noun in the accusative ("Je vidět Sněžku (=It is possible to see Sněžka.ACC)", see Section 8.2.2.4, "The construction "Je vidět Sněžku/Sněžka""), which are discussed in Section 9.2.4.4.5, "Infinitive dependent on "lze" and control in constructions of the type "Je vidět Sněžku"".

There is no control in the constructions with the substitute být (see Section 8.2.1.2, "Substitute "být'"), in which the infinitive is the Actor (e.g. je pozdě.TWHEN litovat.ACT (=It is too late to be sorry)). As for the constructions with the substitute být, there is control involved in those cases in which the infinitive is a modification with the INTT functor (see also Section 9.2.4.1.3, "Infinitive a valency modification of which is controlled").

## Coreference

!!! Control with predicates with the copula být is not represented consistently in the data; often, it is not represented at all.

### 9.2.4.4.4.1. "Být" + noun the Patient of which can be expressed by an infinitival construction

The nouns in predicates of the type být + noun, the Patient of which can be expressed by an infinitival construction, can have various meanings; most often, these are nouns otherwise used as parts of multiword predicates synonymous with modal and phase verbs (see Section 6.9.2.1, "Quasi-modal and quasi-phase verbs") and verbs of "intention" and "responsibility acceptance" (see Section 9.2.4.2, "Types of control verbs"). These are especially nouns like: povinnost (=obligation), právo (=right), úkol (=task), cill (=goal), strategie (=strategy) etc. More examples: prání (=wish), posláni (=vocation), omyl (=mistakelerror), problém (= problem), řešení (=solution), zážitek (=experience), zvyk (=habit), riziko (=risk), zpuisob (=way), cesta (=way), důvod (=reason), možnost (=possibility) etc. The Patient of these nouns is usually expressed by a dependent infinitival construction (e.g.: zpuisob, jak to udělat (=a way to do it); see Section 6.5.1.1, "Dependent infinitival constructions").

In order for the combination být + noun to belong to this type, it is essential for the Patient of the noun to be expressible by an infinitive (infinitival construction).

The controlled modification of the infinitive dependent on být as its Actor is controlled by the Actor of the nominal part of the verbonominal predicate. The Actor of the noun does not have to be expressed at the surface level. With this type of construction, the control relation is represented only in those cases in which the controller and controllee are represented by an animate noun (or a noun referring to a living creature).

The infinitive in the position of the Actor of the verbonominal predicate is in a quasi-control relation with the Patient of the nominal part of the predicate (for more on quasi-control, see Section 9.2.5, "Quasi-control").

## Cf.:

- Je povinností koalice.ACT \{\#Cor.ACT\} nalézt.ACTcestu. (=It is the coalition's duty to find a way)

The Actor of the infinitive nalézt ( $=$ find) is controlled by the Actor of the noun povinnost (=duty) (which is koalice). Cf. Fig. 9.43.

More examples:
Strategií jezdce.АСТ je\{\#Сог.AСT\} ziskat titul. (=The rider's strategy is to get a title)
Je přáním pořadatelů.ACT \{\#Cor.ACT\} navodit atmosféru. (=It is the organizers' wish to create a (good) atmosphere)

Jeho.ACT cilem je\{\#Cor.ACT\} umožnit nové metody. (=His aim is to make the new methods possible)

Jediné právo občana.ACT je \{\#Cor.ACT\} jít každé čtyři roky k volbám. (=The only citizen's right is to vote every four years)

Je jeho.ACT posláním \{\#Cor.ACT\} vytvořit nové podmínky pro rozvoj jedince. (=It is his mission to create new conditions for personal development)

- Je cilem ankety.APP \{\#Gen.ACT\} zlepšit.ACTkvalitu. (=The goal of the survey is to increase the quality)

The Actor of the infinitive zlepšit (=improve) is not represented as controlled.
More examples:

Cílem této akce je vrátit dětem zdraví. (=The goal of this campaign is to make the children healthy again)

Cílem konference je přispět k diskuzi o jaderné energii. (=The goal of the conference is to contribute to the nuclear energy discussion)

- Cílem \{\#PersPron/\#Gen.ACT\} je \{\#Cor.ACT\} zkvalitňovat chovy. (=The goal is to improve the quality of farming)

The Actor of the infinitive zkvalitnovat (=improve the quality) is represented as controlled if it is clear from the context that the Actor of the noun cil (=goal) is animate. Cf.: Fig. 9.44.

More examples with a non-expressed controller:
Až kvi̊li fanouškům byla povinnost se \{\#Cor.ACT\} vrátit. (=There was a duty to come back)
Je \{\#PersPron/\#Gen.ACT\} omylem si\{\#Cor.ACT\} myslet néco jiného. (=It is a mistake to think something else)

Je \{\#PersPron/\#Gen.ACT\} problémem \{\#Cor.ACT\} dát dohromady kapitál. (=To get together some capital is a problem)
\{\#Cor.ACT\} Odebrat jim povolení je jediným možným \{\#PersPron/\#Gen.ACT\} řešením. (=The only possible solution is to suspend the permission)
\{\#Cor.ACT\} Vidět takovou událost byl \{\#PersPron/\#Gen.ACT\} zázitek. (=It was a great experience to be present at such an event)

Nebylo zvykem \{\#PersPron/\#Gen.ACT\} \{\#Cor.ACT\} uživat slova. (=It wasn't usual to use words)
\{\#Cor.ACT\} Přijmout na sebe soudcovskou odpovédnost v totalitním systému je mravní \{\#PersPron/\#Gen.ACT\} riziko. (=To accept the responsibility was a risk)

Note: In some case in which the controller is not expressed, it might not be quite clear that the controller is the non-expressed Actor. In principle, it could be the Beneficiary, too. Cf.:

- Předvést moderní umění je vzrušující úkol. (=To present modern art is an exciting task)
- néčí.ACT úkol (=someone's task)
- úkol pro nékoho.BEN (=a task for someone)

In a sense, it is even possible to say that the nouns in these constructions have the so-called double control (see Section 9.2.4.1, "The notion of control"). However, the issue is of no real importance. In the annotation, the ACT functor is assigned to the node for the non-expressed controller in such constructions.

Figure 9.43. Verbonominal control predicates


Je povinností koalice nalézt cestu. (=lit. Is duty (of) coalition to find way)
Figure 9.44. Verbonominal control predicates


Cilem je zkvalitňovat chovy. (=lit. Goal is to_increase_quality (of) farming)
NB! The rules above only apply to constructions with the copula use of být. In constructions, in which být is in its existential use, are analyzed according to the rules in Section 9.2.4.1, "The notion of control"; e.g.:

Je možnost využivat počítač. (=It is possible (lit. Is possibility) to use a computer) Fig. 9.45
Je čas odejít. (=It is time (lit. Is time) to go)
Figure 9.45. Control nouns


Je možnost využívat počítač. (=lit. Is possibility to use computer)

### 9.2.4.4.4.2. "Být" + noun the Actor of which can be expressed by an infinitival construction

Optional control is involved also in the constructions být + modal or evaluating noun (e.g.: nutnost (=necessity), nevhodnost (=unsuitability)), the Actor of which can be expressed by an infinitival construction. Cf.:

- nutnost přijít.ACT včas (=lit. necessity to_come in_time).

These are mostly deadjectival nouns.
The controlled modification of the infinitive dependent on být as its Actor is controlled by the Beneficiary modifying the non-verbal part of the verbonominal predicate. The Beneficiary can also be nonexpressed on the surface (see Section 9.2.4.1.1, "Controller").

## Cf:

- Je nutností.PAT \{\#Benef.BEN\} \{\#Cor.ACT\} pořidit.ACT vybavení. (=It is necessary (lit. Is necessity) to buy the equipment)

The Actor of the infinitive pořídit (=buy/get) (dependent on být) is controlled by the non-expressed Beneficiary of the noun nutnost (=necessity). Cf. Fig. 9.46.

There is a quasi-control relation between the Actor of the verbonominal predicate (the infinitive) and the Actor of the noun in the non-verbal part of the predicate. For more on quasi-control, see Section 9.2.5, "Quasi-control".

## Figure 9.46. Verbonominal control predicates



Je nutností pořídit vybavení. (=lit. Is necessity to_get equipment)

### 9.2.4.4.4.3. "Být" + noun that cannot be modified by an infinitive

Also in the constructions být + evaluating noun (e.g.: hračka (=piece_of_cake)) that cannot be modified by an infinitive, there is optional control involved. Cf.:

- *hračka zařídit vybavení (=lit. piece_of_cake to_get equipment)

The controlled modification of the infinitive dependent on být as its Actor is controlled by the Beneficiary modifying the non-verbal part of the verbonominal predicate. The Beneficiary can also be nonexpressed on the surface (see Section 9.2.4.1.1, "Controller").

Cf.:

- \{\#Cor.ACT\} Transformovat.ACT bezpečnostní složky je hračkou.PAT jen pro kouzelné dědečky.BEN (=To transform the security service is a piece of cake only for magicians)

The Actor of the infinitive transformovat (dependent on být) is controlled by the Beneficiary modifying the non-verbal part of the predicate, i.e. the noun hračka (=piece_of_cake). Cf. Fig. 9.47 .

Figure 9.47. Verbonominal control predicates


Transformovat bezpečnostní složky je hračkou jen pro kouzelné dědečky. (=lit. To_transform security components is piece_of_cake only for magic granddads)

### 9.2.4.4.4.4. "Být" + modal or evaluating adjective (adverb)

Modal and evaluating adjectives (adverbs) are e.g.: nutný (=necessary), možný (=possible), potřebný (=needed), nezbytný (=necessary); obtižný (=difficult), dobrý (=good), výhodný (=advantageous/convenient), vhodný (=suitable), přijemný (=pleasant), bezohledný (=inconsiderate), lehkomyslný (=thoughtless), kolegiální (=cooperative/loyal), ošklivý (=ugly), nefér (=unfair).

In constructions být + modal or evaluating adjective (adverb), the controlled modification of the infinitive dependent on být as its Actor is controlled either by the Origo or Beneficiary of the adjective (adverb). The Beneficiary and Origo can also be non-expressed. The Origo is the controller in those cases in which it is part of the valency frame of the adjective (adverb); otherwise, it is the Beneficiary (see Section 9.2.4.1.1, "Controller").

Cf:

- Je pro finskou kapelu. BEN těžké.PAT \{\#Cor.ACT\} prorazit.ACT? (=Is it hard for a Finnish band to be successful?)

The Actor of the infinitive prorazit (=be successful) (dependent on být) is controlled by the Beneficiary (pro finskou kapelu) of the adjective těžký (=hard). Cf. Fig. 9.48.

- Je \{\#Benef.BEN\} nutné \{\#Cor.ACT\} přejít.ACT (=It is necessary to cross the street)

The Actor of the infinitive přejít (=cross) (dependent on být) is controlled by the non-expressed Beneficiary of the adjective nutny' (=necessary). Cf. Fig. 9.49.

- Je od něj.ORIG opravdu nefér.PAT \{\#Cor.ACT\} nedodržet.ACT slib. (=It is really unfair of him not to keep the promise)

The Actor of the infinitive nedodržet (=not keep) (dependent on být) is controlled by the Origo (od nëj) of the adverb nefér (=unfair). Cf. Fig. 9.50.

Examples of constructions with a non-expressed Beneficiary:
Je \{\#Benef.BEN\} možné \{\#Cor.ACT\} udělat to. (=It is possible to do it)
Je \{\#Benef.BEN\} nutné \{\#Cor.ACT\} udělat to. (=It is necessary to do it)
Je \{\#Benef.BEN\} potřebné \{\#Cor.ACT\} udělat to. (=It is necessary to do it)
Je \{\#Benef.BEN\} nezbytné \{\#Cor.ACT\} udělat to. (=It is necessary to do it)
Examples of constructions where the Beneficiary is expressed:
Pro každého nového člena či pretendenta o členství v EU je vždy obtižné se s touto slučitelností $\{\#$ Cor.ACT \} vyporáadat. (=For every new member of the EU, it is hard to deal with this)

Myslím si, že pro ženu je lepší třikrát denně \{\#Cor.ACT\} použít rtěnku. (=I think that for a woman, it is better to use a lipstick three times a day)

Je jistě těžké pro televizní profesionály \{\#Cor.ACT\} odepřit si realizaci toho či onoho projektu, když právě oni v denní praxi vidí, co všechno by se ještě dalo pěkného veřejnosti nabídnout. (=It is definitely hard for the TV professionals to deny themselves...)

Argument, že i pro školy by bylo výhodnější \{\#Cor.ACT\} platit spiše jednu učitelku pro třicet žáků než dvě pro dvaatřicet, u některých ředitelů nezabírá. (=The argument that also for the schools it would be better to pay one teacher for thirty pupils than...)
\{\#Cor.ACT\} Hněvat se na to, že vývoz surovin pokračuje, není pro nás výhodné. (=To be angry is not convenient for us)

NB! In these constructions, control relations are represented only if it is really clear that they are present. Hence, no control is found in:

- Není jasné, zda bude pro český tenis výhodnější smlouvu vypovědět či nikoli. (=It is not clear whether it is more convenient for the Czech tennis to terminate the contract)

It is clear from the context that the contract is not going to be terminated by českýtenis (=the Czech tennis); the given construction can be rephrased as: Není jasné, zda bude pro český tenis výhodnější, $k d y z ̌ ~ n e ̌ k d o ~ s m l o u v u ~ v y p o v i ́ ~ c ̌ i ~ n i k o l i ~(=I t ~ i s ~ n o t ~ c l e a r ~ w h e t h e r ~ i t ~ i s ~ m o r e ~ c o n v e n i e n t ~ f o r ~ t h e ~ C z e c h ~$ tennis if someone terminates the contract). There is no control in the construction.

Figure 9.48. Verbonominal control predicates


Je pro finskou kapelu těžké prorazit? (=lit. Is for Finnish band hard to_be_successful)

Figure 9.49. Verbonominal control predicates


Je nutné přejít. (=lit. Is necessary to_cross_over)
Figure 9.50. Verbonominal control predicates


Je od něj opravdu nefér nedodržet slib. (=lit. Is of him really unfair not_to_keep promise)

### 9.2.4.4.4.5. "Být" + adjective or noun of "individual experience"

Adjectives and nouns of "individual experience" are e.g.: trapný (=embarrassing), nepřijemný (=unpleasant), potě̌̌ení (=pleasure), radost (=joy).

In constructions být + adjective or noun of "individual experience", the controlled modification of the infinitive (dependent on být as its Actor) is controlled by the Beneficiary of the adjective or noun. The Beneficiary is usually a noun in the dative but the prepositional phrase pro+4 is also a possible form. The Beneficiary can also be non-expressed on the surface (see Section 9.2.4.1.1, "Controller").

Cf.:

- Je mu.BEN hloupé.PAT \{\#Cor.ACT\} neodpovědět.ACT na dopis. (=He finds it stupid (lit. Is to_him stupid) not to answer the letter)

The Actor of the infinitive odpovědět (=answer) (dependent on být) is controlled by the Beneficiary (ти) of the adjective hloupý (=stupid).

- Je mi/pro mé.BEN potěšením.PAT \{\#Cor.ACT\} zúčastnit se.ACT této akce. (=It's a pleasure for me to take part in this event)

The Actor of the infinitive zúčastnit se (=take part) (dependent on být) is controlled by the Beneficiary (mi/pro mé) of the noun potěšení (=pleasure).

More examples:
Je mu.BEN trapné.PAT \{\#Cor.ACT\} odejít.ACT (=He finds it embarassing (lit. Is to _him embarrassing) to leave) Fig. 9.51

Je \{\#Benef.BEN\} trapné.PAT \{\#Cor.ACT\} přijít.ACT pozdě. (=He finds it embarassing (lit. Is to _him embarrassing) to be late) Fig. 9.52

Je mu.BEN nepříjemné.PAT \{\#Cor.ACT\} stát.ACT dlouho ve frontě. (=He finds it unpleasant (lit. Is to _him unpleasant) to wait in a queue for a long time)

## Figure 9.51. Verbonominal control predicates



Je ти trapné odejit. (=lit. Is to_him embarrassing to_leave)

Figure 9.52. Verbonominal control predicates


Je trapné přijít pozdě. (=lit. Is embarrassing to_come late)

### 9.2.4.4.4.6. "Být" + predicative adverb

Predicative adverbs are: třeba (=necessary.adv), potřeba (=necessary.adv), škoda (=pity), hanba (=shame), trapno (=embarrassing.adv), nutno (=necessary.adv), možno (=possible.adv), zatěžko (=hard.adv), stydno (=shameful.adv).

In constructions být + predicative adverb, the adverb is assigned the CPHR functor and the verb být has a special valency frame (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)"). The controlled modification of the infinitive (dependent on být as its Actor) is controlled by the Addressee or Beneficiary. The Addressee is the controller in those cases when it is part of the valency frame of být (usually expressed at the surface level - a noun in dative); in other cases, the controller is the Beneficiary modifying the predicative adverb (see Section 9.2.4.1.1, "Controller").

Cf.:

- Je mi.ADDR hanba.CPHR \{\#Cor.ACT\} přijít.ACT pozdě. (=lit. Is to_me shame to_come late)

The Actor of the infinitive přijít (=come) (dependent on být) is controlled by the Addressee ( mu ) of the verb být.

- Je mu.BEN zatěžko.CPHR \{\#Cor.ACT \} prijít.ACT včas. (=lit. Is to_him hard to_come in_time)

The Actor of the infinitive přijit (dependent on být) is controlled by the Beneficiary ( mu ) modifying the adverb. Cf. Fig. 9.54.

- Studium už není \{\#Benef.BEN\} možno.CPHR \{\#Cor.ACT\} odkládat.ACT (=It is not possible to put off the study any more)

The Actor of the infinitive odkládat ( = put off) (dependent on být) is controlled by the non-expressed Beneficiary of the adverb. Cf. Fig. 9.53.

More examples with the Addressee as the controller:

Je mi.ADDR stydno.CPHR \{\#Cor.ACT\} neprijijt.ACT (=I find it shameful (lit. Is to_me shameful) not to come)

Je mu.ADDR trapno.CPHR \{\#Cor.ACT\} neudělat.ACT to. (=He finds it embarrassing (lit. Is to_him embarrassing) not to do it)

Je mi.ADDR lito.CPHR \{\#Cor.ACT\} odejít.ACT (=lit. Is to_me sorry to_leave)
More examples with the Beneficiary as the controller:
Je \{\#Benef.BEN\} možno.CPHR \{\#Cor.ACT\} udělat to. (=It's possible to do it)
Je \{\#Benef.BEN\} nutno.CPHR \{\#Cor.ACT\} udělat to. (=It's necessary to do it)
Je \{\#Benef.BEN\} zapotřebí.CPHR \{\#Cor.ACT\} udělat to. (=It's necessary to do it)
Je \{\#Benef.BEN\} škoda.CPHR se \{\#Cor.ACT\} ochudit o tolik vzácných látek. (=It is a pity to be losing so many valuable substances)

Figure 9.53. Control in constructions "být" + predicative adverb


Studium už není možno odkládat. (=lit. Study.ACC already not_is possible.adv to put_off)

Figure 9.54. Control in constructions "být" + predicative adverb


Je mu zatěžko přijít včas. (=liy. Is to_him hard.adv to_come in_time)

### 9.2.4.4.5. Infinitive dependent on "Ize" and control in constructions of the type "Je vidět Sněžku"

Control is present also in two more constructions, which are similar to each other:

- the construction in which the infinitive depends on lze.

In this construction, the controlled modification of the infinitive is controlled by the Beneficiary of the predicate lze. Cf..:

- \{\#Benef.BEN\} Lze tam \{\#Cor.ACT \} prijijt.ACT kdykoli. (=It's possible to come there any time)

The Actor of the infinitive přijít (=come) (dependent on lze) is controlled by the Beneficiary of lze (is_possible). Cf. Fig. 9.55.

- in the construction of the type "Je vidět Sněžku" (=apprx. It is possible/we can see Sněžka.ACC).

In this construction, the controlled modification of the infinitive is controlled by the Beneficiary modifying the verb být. Cf.:

- \{\#Benef.BEN\} Je \{\#Cor.ACT\} vidět.ACT Sněžku. (=It is possible to see Sněžka; lit. Is to_see S.)

The Actor of the infinitive vidět (=see) (dependent on být) is controlled by the non-expressed Beneficiary of být. Cf. Fig. 9.56.

Both constructions are described in more detail in Section 8.2.2.4, "The construction "Je vidět Sněžku/Sněžka""'.

Constructions of the type "Je vidět Sněžka" (=lit. Is to_see Sněžka.NOM) (see also Section 8.2.2.4, "The construction "Je vidět Sněžku/Sněžka"") involve no control.

Figure 9.55. Control with the predicate "lze"


Lze tam přijít kdykoli. (=lit. Is_possible to_come anytime)
Figure 9.56. Control with constructions of the type "Je vidět Sněžku"


Je vidět Sněžku. (=lit. Is_possible to_see Sněžka.ACC)
!!! As for the constructions with lze, control is represented properly in the data; on the other hand, with the type "Je vidět Sněžku", control relations are not represented consistently.

### 9.2.4.5. Type 2: Infinitive dependent on a nominalized control predicate

Type 2 is derived from type 1: the verbal control predicate is nominalized. Two basic subtypes can be found:

- an infinitive depends on a noun derived from a control verb (see Section 9.2.4.5.1, "Infinitive dependent on a noun derived from a control verb"),
- an infinitive depends on an adjective derived from a control verb (see Section 9.2.4.5.2, "Infinitive dependent on an adjective derived from a control verb"),
!!! Control with type 2 is represented consistently only with the subtype described in Section 9.2.4.5.1, "Infinitive dependent on a noun derived from a control verb".


### 9.2.4.5.1. Infinitive dependent on a noun derived from a control verb

Also modifications of infinitives dependent on certain nouns are controlled. These are nouns derived from control verbs, especially nouns that are often part of complex control predicates (e.g.: rozhodnutí (=decision), slib (=promise), možnost (=possibility), schopnost (=ability), nutnost (=necessity), povinnost (=duty), šance (=chance), právo (=right); also řešení (=solution); způsob (=way); cesta (=way); see also the note on the nouns of "intention" Section 9.2.4.2, "Types of control verbs").

The controlled modification of the infinitive is controlled by a valency modification of the noun. The infinitive depending on the noun is usually its Patient or Actor. The controller can have various functors, just as with type 1. The controller does not have to be expressed at the surface level; then, a new node with the appropriate t -lemma substitute is inserted into the tectogrammatical tree.

The following three situations are the most common:

- the Actor is the controller.

Cf.:

- jeho.ACT odhodlání \{\#Cor.ACT\} přijít.PAT včas (=his determination to come in time)

The Actor of the infinitive přijít (=come) (dependent on odhodlání) is controlled by the Actor of the noun odhodlání (=determination), by the pronoun jeho. Cf. Fig. 9.57.

More examples:
povinnost studentů.ACT \{\#Cor.ACT\} odevzdat práci do pátku (=the students' duty to submit the essay by Friday) Fig. 9.58
povinnost družstva.ACT \{\#Cor.ACT\} uzavřit smlouvu s nájemniky (=the obligation of the housing association to sign a contract with the tenants)
\{\#Gen.ACT\} rozhodnutí \{\#Cor.ACT\} podat žádost (=decision to submit an application)
\{\#Gen.ACT\} možnost \{\#Cor.ACT\} studovat (=possibility to study)
řediteliov.ACT plán \{\#Cor.ACT\} vyklidit knihovnu (=the director's plan to clear out the library)
Tato právní úprava je jediným možným \{\#Gen.ACT\} řešením, jak \{\#Cor.ACT\} oddělit restituce. (=...the only solution how to separate the restitutions)

Hledáme \{\#PersPron.ACT\} způsob, jak \{\#Cor.ACT\} zajistit bezpečnost. (=We are looking for a way to guarantee security)

Známe nejlacinějši \{\#Gen.ACT\} cestu, jak \{\#Cor.ACT\} zkvalitnit výrobky. (=We know the cheapest way to improve the quality of the products)

## - the Addressee is the controller.

## Cf.:

- Platí tam přisný zákaz \{\#Gen.ADDR\} \{\#Cor.ACT\} konzumovat alkoholické nápoje. (=lit. ...strict ban to_consume alcoholic beverages)

The Actor of the infinitive konzumovat (=consume) (dependent on zákaz) is controlled by the non-expressed Addressee of zákaz (=ban). Cf. Fig. 9.59.

## - the Beneficiary is the controller.

The Beneficiary is the controller especially in those cases in which the infinitive is the Actor of the noun. Cf.:

- \{\#Benef.BEN\} Nutnost \{\#Cor.ACT\} přijít.ACT včas nás přiměla rychle dokončit rozdělanou práci. (=The necessity to come in time made us finish the work quickly)

The Actor of the infinitive přijit (=come) (which is the Actor of nutnost) is controlled by the non-expressed Beneficiary of the noun nutnost (=necessity). Cf. Fig. 9.60.

Another example:
\{\#Benef.BEN\} nutnost \{\#Cor.ACT\} ziskat penize (=the necessity to get some money)

Figure 9.57. Control nouns

jeho odhodlání přijít včas (=lit. his determination to_come in_time)

Figure 9.58. Control nouns

povinnost studentů odevzdat práci do pátku (=lit. duty (of) students to_submit work by Friday)

Figure 9.59. Control nouns


Platí tam přisný zákaz konzumovat alkoholické nápoje. (=lit. Holds there strict ban to_consume alcoholic beverages)

Figure 9.60. Control nouns


Nutnost přijít včas nás přiměla rychle dokončit rozdělanou práci. (=lit. Necessity to_come in_time us made quickly finish unfinished work)
!!! There was a subsequent check on the representation of type 2 constructions with nouns derived from control verbs (i.e. noun + infinitive) and a list of control nouns was created (see Section 5.3, "Control nouns"). As for the nouns in this list, it can be guaranteed that control is marked in the tectogrammatical trees as well. As for other control noun, which are not listed, control is not marked consistently in the trees.

### 9.2.4.5.2. Infinitive dependent on an adjective derived from a control verb

Also modifications of infinitives dependent on certain adjectives are controlled. These are adjectives derived from control verbs, especially adjectives that are often part of verbonominal control predicates (e.g.:rozhodnutý (=decided), slibujíci (=promising), usilující (=striving), umožňující (=enabling), schopný (=able), odhodlaný (=determined), nutný (=necessary), povinný (=compulsory)).

The controller does not depend on the adjective. If the adjective modifies a noun the noun is the controller, then. Cf.:

- člověk odhodlaný \{\#Cor.ACT\} podat.PAT trestní oznámení (=a person determined to lodge a complaint)

The Actor of the infinitive podat (=lodge) (which is the Patient of odhodlany') is controlled by the noun governing the adjective odhodlaný (=determined), i.e. by the noun člověk (=person).

In case the control adjective modifies a full verb (e.g.: uznat (=admit), shledat (=find), považovat (=consider)), the controller is one of the modifications of the verb, usually a noun in the accusative (the Patient). Cf.:

- Uznali koryto řeky za schopné \{\#Cor.ACT \} pojmout.PAT větší množství vody. (=They found the riverbed able to hold a bigger amount of water)

The Actor of the infinitive pojmout (=hold) (dependent on schopny) is controlled by the Patient of uznat (=acknowledge), i.e. the noun koryto (=riverbed).

More examples:
student usilujíci \{\#Cor.ACT\} dokončit fakultu (=a student trying to finish the study) Fig. 9.61
osoba povinná \{\#Cor.ACT\} vydávat majetek (=the person obliged to hand over the property) Fig. 9.62

Shledali ho schopným \{\#Cor.ACT\} vyřešit situaci. (=They found him able to solve the situation) Fig. 9.63

Figure 9.61. Control adjectives

student usilující dokončit fakultu (=lit. student trying to_finish faculty)

Figure 9.62. Control adjectives

osoba povinná vydávat majetek. (=lit. person obliged to_issue property)

Figure 9.63. Control adjectives


Shledali ho schopným vyřešit situaci. (=lit. (They) found him able to_solve situation)
!!! Control with control adjectives is not represented consistently in the data; often, it is not represented at all.

### 9.2.4.6. Type 3: Noun dependent on a verbal control predicate

Type 3 is derived from type 1: the infinitive a modification of which is controlled is nominalized in these constructions. This type also includes cases in which the verb cannot be modified by an infinitive. Such a verb is modified by a deverbal noun, a modification of which (usually the Actor) is controlled by a valency modification (usually the Patient) of the verb. There are two basic subtypes of type 3:

- a noun depends on a control verb and the noun can be replaced by an infinitive (see Section 9.2.4.6.1, "A nominalized infinitive depends on a verbal control predicate"),
- a noun depends on a control verb and the noun cannot be replaced by an infinitive (see Section 9.2.4.6.2, "Control verbs that cannot be modified by an infinitive"),
!!! Control with type 3 is represented consistently only with the subtype described in Section 9.2.4.6.1.1, "A nominalized infinitive dependent on a complex control predicate". In all the other cases, it is not represented consistently and often it is not represented at all.


### 9.2.4.6.1. A nominalized infinitive depends on a verbal control predicate

The position of the infinitive (a modification of which is controlled) can also be occupied by a noun derived from it. Then, one of the noun's modifications is controlled - the one corresponding to the controlled modification of the infinitive. The controller is a modification of the control verb. Cf.:

- Rodiče zakázali synovi \{\#Cor.ACT\} práci ve výskách. (=The parents have forbidden their son to work high above the ground)

The Actor of the noun práce is controlled by the Addressee of zakázat, the noun synovi. Cf. Fig. 9.64.

The infinitive can be nominalized with all types of control verbs: one-word control verbs as well as complex and verbonominal control predicates. With verbs that can have two infinitival modifications (the subjects of which are controlled), both the infinitives can be nominalized.

For more on nominalized infinitives with complex control predicates, see Section 9.2.4.6.1.1, "A nominalized infinitive dependent on a complex control predicate".

Examples:
\{\#PersPron.ACT\} Měl zájem o \{\#Cor.ACT\} studium na vysoké škole. (=He was interested in studying at a university) Fig. 9.65
\{\#Cor.ACT \} Složení makléř̌kých zkoušek je povinné pro všechny obchodniky. (=Passing the exam is obligatory for all businessmen) Fig. 9.66
\{\#Cor.ACT\} Ziskání amerického občanství vyžaduje od zájemcỉ schopnost \{\#Cor.ACT\} mluvit anglicky. (=One has to speak English in order to get the American citizenship; lit. Getting American citizenship requires from applicants ability to_speak English) Fig. 9.67
\{\#PersPron.ACT\} Odmitla \{\#Cor.ACT\} obvinění. (=She refused the accusation)
\{\#PersPron.ACT\} Přišel na \{\#Cor.ACT\} pomoc. (=He came to help; lit. for help)
Protivnik je ochoten $k$ \{\#Cor.ACT\} uzavření smíru. (=The rival is willing to make peace; lit. for making peace)

Pavel je připraven $k\{\#$ Cor.ACT\} provedenízákroku. (=Pavel is ready for the operation; lit. performing operation)
\{\#Cor.ACT \} Využití této právní úpravy je jediným možným \{\#Gen.ACT\} řešením. (=The only solution is to make use of the law; lit. Making use of...)

Figure 9.64. One-word control predicates


Rodiče zakázali synovi práci ve výškách. (=lit. Parents have_forbidden son work in heights)

Figure 9.65. Complex control predicates


Měl zájem o studium na vysoké škole. (=lit. (He) had interest in study at high school)

Figure 9.66. Verbonominal control predicates


Složení makléřských zkoušek je povinné pro všechny obchodniky. (=lit. Passing broker exams is obligatory for all businessmen)

Figure 9.67. One-word control predicate with double control


Ziskání amerického občanství vyžaduje od zájemcio schopnost mluvit anglicky. (=lit. Getting American citizenship requires from applicants ability to_speak English)

No control is involved in constructions like: Má daleko k postupu. (=lit. Has far from promotion; meaning: He is not going to be promoted anytime soon); Má bliž $k$ vyhazovu. (=lit. Has closer to being fired)

### 9.2.4.6.1.1. A nominalized infinitive dependent on a complex control predicate

As was already suggested in Section 9.2.4.3, "Types of control constructions and the issue of nominalizations", nouns are by definition much vaguer than verbs (the infinitive), therefore, the decision whether a given combination of a complex predicate with a noun involves control or not is accompanied by several problems. Apart from the problems described in Section 9.2.4.3, "Types of control constructions and the issue of nominalizations", it is possible to find the following cases - within the complex predicate + noun combinations - that are not taken as cases of control:

- complex predicate + noun that is not a nominalized infinitive.

For example: mít zájem o knihu (=lit. have interest in book), mít právo na penize (=lit. have right on money).
!!! Some of these cases can be interpreted as involving ellipsis of the nominalized infinitive (e.g.: mít právo na získaní peněz (=lit. have right on getting money)), but this type of ellipsis is not represented as such in the annotation at present.

- complex predicate + noun that could be a nominalized infinitive; however, the vagueness of the construction makes it unclear whether this is really so.


## Coreference

For example: Máme v České republice zájem o výrobu drceného kamene (=lit. ...(we) have interest in production of crushed stone).

This problem is closely related to the fact that control is associated with a particular meaning of the verb (see also Section 9.2.4.1, "The notion of control"). Cf.:

- mit / projevit zájem o výrobu (=have / show interest in production)
$=$ want to produce.
- mít / projevit zájem o néčí výrobu kamene (=have / show interest in production)
$=$ be interested in someone's production of stone
!!! Whereas individual meanings of one-word control predicates are distinguished in the valency lexicon; the situation is different with complex control predicates. For example, the meaning difference above is not indicated in the valency lexicon - both meanings correspond to a single meaning.

In these constructions (complex predicate + noun), the control relation is represented in the tree only if the presence of the grammatical coreference relation is obvious. For example, in the construction Máme v České republice zájem o výrobu drceného kamene. (=We are interested in crushed stone production here in the Czech republic) it is not clear which meaning we are dealing with, so the control is not represented in the tree.

In the constructions complex predicate + noun (just like in the complex predicate + infinitive cases; see Section 9.2.4.4.1, "Infinitive dependent on the nominal part of a complex control predicate"); the controller is a valency modification of the verbal part of the complex predicate (not the nominal one). For rules on representing coreference relations in this type of construction and for more on quasicontrol, see also Section 6.9.3.4.2, "Sharing of valency modifications between the verbal and nominal components (quasi-control)".

The noun dependent on a complex control predicate can be (just like with the constructions verbal control predicate + infinitive) derived either from an active or passive infinitive. If it is derived from a passive infinitive, the controller is usually not the Actor but rather the Patient or Addressee. Cf.:

- Slavia má značnou šanci na \{\#Cor.ACT\} postup. (=Slavia has a good chance to get through (=lit. for promotion)
$=$ an active infinitive is nominalized.
The Actor of the noun postup (=promotion) (dependent on the nominal part of mit šanci (=have a chance)) is controlled by the Actor of the verbal part of the control predicate (i.e. the noun Slavia), which is identical in reference with the non-expressed Actor of the noun šance ( $=$ chance). Cf. Fig. 9.68.
- Novela nemá naději na \{\#Cor.PAT\} přijeti. (=The amendment has no chance to pass (lit. for acceptence))
$=\mathrm{a}$ passive infinitive is nominalized.
The Patient of the noun přijetí (=acceptance) (dependent on the nominal part of mit nadëji (=have a chance)) is controlled by the Actor of the verbal part of the predicate (i.e. the noun novela (=amendment)), which is identical in reference with the non-expressed Actor of nadëje (=chance). Cf. Fig. 9.69.
- Všichni akcionáři mají nárok na \{\#Cor.ADDR\} vyplacení dividendy. (=All shareholders have a right to get the dividends (lit. for paying dividends))
$=\mathrm{a}$ passive infinitive is nominalized.

The Addressee of the noun vyplaceni (=paiying) (dependent on the nominal part of the predicate mit nárok (=have a right)) is controlled by the Actor of the verbal part of the predicate (i.e. the noun akcionárí ( $=$ shareholders)), which is identical in reference with the non-expressed Actor of the noun nárok (=right). Cf. Fig. 9.70.

More examples of active infinitives being nominalized:
Koalice učinila pokus o \{\#Cor.PAT\} zavedení majetkové daně. (=The Coalition made an attempt to introduce the property tax)

Klient má možnost neomezeného \{\#Cor.PAT\} výběru. (=The client has the possibility of unlimited choice)

Cukrovar má potiže se \{\#Cor.PAT\} ziskáním úvěru. (=The sugar refinery has difficulties getting a loan)

More examples of passive infinitives being nominalized:
Návrh ODS má malou naději na \{\#Cor.PAT\} realizaci. (=The ODS proposal has little chance to be realized (lit. for realization))

Tito lidé mají nárok na \{\#Cor.PAT\} odškodnění. (=These people have the right to be compensated (=lit. for compensation)

Figure 9.68. Complex control predicates


Slavia má značnou šanci na postup. (=lit. Slavia has considerable chance for promotion)

Figure 9.69. Complex control predicates


Novela nemá naději na přijetí. (=lit. Amendment not_has chance for passing)

Figure 9.70. Complex control predicates


Všichni akcionáři mají nárok na vyplacení dividendy. (=lit. All shareholders have right for paying dividends)
!!! There was a subsequent check on the representation of type 3 constructions with complex predicates (i.e. complex predicate + noun) and a list of complex control predicates was created (see Table 5.1, "Control type 3 of complex predicates"). As for the complex predicates in this list, it can be guaranteed that control is marked in the tectogrammatical trees as well. As for other complex control predicates, which are not listed, control is not marked consistently in the trees.

### 9.2.4.6.2. Control verbs that cannot be modified by an infinitive

Some control verbs cannot be modified by an infinitive. They are modified by deverbal nouns, a modification of which is controlled by a valency modification (usually the Actor) of the verb. These are verbs like: podezírat (=suspect), stihat (=prosecute), obvinit (=accuse), očekávat (=expect), pochválit (=praise), omluvit se (=apologize), pracovat na něčem (=work on sth). Some of these verbs combine with deverbal nouns with the CAUS or DIR1 functors (or other adjunct functors) Cf.:

- Policie ho stihá pro \{\#Cor.ACT\} falšování dokladů. (=The police are prosecuting him for falsifying documents)

The Actor of the noun falšování (=falsifying) is controlled by the Patient of the verb stíhat (=prosecute), by the pronoun ho (him). Cf. Fig. 9.71.

More examples:
Očekávali ode mě \{\#Cor.ACT\} účast na schůzce. (=They expected my presence at the meeting; lit. from me presence) Fig. 9.72

Obvinili ho z \{\#Cor.ACT\} vyvolání roztržky. (=They accused him of causing the incident)
Podezírají ho z \{\#Cor.ACT\} útěku před odpovědností. (=They suspect him from running away from his duties)
\{\#PersPron.ACT\} Omluvil se z \{\#Cor.ACT\} účasti na šampionátu. (=lit. (He) apologized from presence at (the) championship)
\{\#PersPron.ACT\} Omluvil se za pozdní \{\#Cor.ACT\} příchod. (=He apologized for being late)
\{\# Pers Pron.ACT\} Pracuje na \{\#Cor.ACT\} dokončení disertační práce. (=He is working on finishing his dissertation)

## Figure 9.71. Control verbs



Policie ho stihá pro falšování dokladů. (=lit. Police him is_prosecuting for falsifying documents)

Figure 9.72. Control verbs


Očekávali ode mě účast na schůzce. (=lit. (They) expected from me presence at meeting)
!!! With control verbs that cannot be modified by an infinitive, the type 3 control is not represented consistently in the data or it is not represented at all.

### 9.2.4.7. Type 4: Noun dependent on a nominalized control predicate

Type 4 is also derived from type 1 , but also certain features of types 2 and 3 can be recognized here: like with type 2 , the verbal control predicate is nominalized and, like with type 3 , the infinitive a modification of which is controlled is nominalized, too. This type also includes the cases of nominalized verbs that cannot be modified by an infinitive but which are modified by deverbal nouns (one modification of which is controlled). There are the following subtypes of type 4 constructions:

- a noun derived from an infinitive depends on a noun derived from a control verb (see Section 9.2.4.7.1, "A noun derived from an infinitive dependent on a noun derived from a control verb"),
- a noun derived from an infinitive depends on an adjective derived from a control verb (see Section 9.2.4.7.1, "A noun derived from an infinitive dependent on a noun derived from a control verb"),
- a noun depends on a noun derived from a control verb and the dependent noun cannot be replaced by an infinitive (see Section 9.2.4.7.3, "A noun dependent on a noun derived from a control verb that cannot be modified by an infinitive"),
- a noun depends on an adjective derived from a control verb and the dependent noun cannot be replaced by an infinitive (see Section 9.2.4.7.4, "A noun dependent on an adjective derived from a control verb that cannot be modified by an infinitive").
!!! Control with type 4 is not represented consistently in the data; often, it is not represented at all.


### 9.2.4.7.1. A noun derived from an infinitive dependent on a noun derived from a control verb

Control is involved also in cases in which a deverbal noun (in place of an infinitive) depends on a control noun.

A valency modification of the dependent noun (usually the one corresponding to the subject) is controlled by one of the valency modifications of the control noun. The controller can have various functors, just as with type 1. The controller does not have to be expressed at the surface level; then, a new node with the appropriate t-lemma substitute is inserted into the tectogrammatical tree. Cf.:

- Petrovo úsilí o \{\#Cor.ACT\} zajištění Pavlovy přitomnosti na semináři. (=Petr's effort to secure (lit. (of) securing) Pavel's presence in the class)
$=$ Petr tries to secure Pavel's presence in the class.
The Actor of the noun zajištěni (=securing) is controlled by the Actor of the noun úsilí (=effort), by the possessive adjective Petrovo. Cf. Fig. 9.73.

The control noun can be derived from a one-word control predicate as well as from a complex or verbonominal control predicate.

Examples:
\{\#Gen.ADDR\} umožnění \{\#Cor.ACT\} vyřizování dokladů na počkání (=lit. enabling (of) issuing documents while_you_wait) Fig. 9.74
jeho šance na \{\#Cor.ACT\} získání zakázek (=lit. his chances for getting orders) Fig. 9.75
\{\#Benef.ACT\} Nutnost \{\#Cor.ACT\} ucházení se o zaměstnání je přiměla k rychlému jednání. (=lit. necessity (of) applying for job them made to quick acting) Fig. 9.76
jeho ochota $k$ \{\#Cor.ACT\} užití kompetencí (=lit. his willingness to using competences) Fig. 9.77
jeho pokus o podvodné \{\#Cor.ACT\} vylákání majetku (=his attempt at deceitful cheating_out (of) property)
\{\#Gen.ACT\} snahy o \{\#Cor.ACT\} spojování stran (=lit. tendencies for joining parties)
jeho schopnost \{\#Cor.ACT\} ziskávání finančnich prostředků (=lit. his ability (of) getting financial resources)
\{\#Gen.ACT\} možnost \{\#Cor.ACT\} provozování vodnich sportiu (=lit. possibility (of) doing water sports)
ministrovo právo \{\#Cor.ACT\} kladení / na kladení požadavki̊ (=lit. minister's right for having requirements)

Petriov zájem o \{\#Cor.ACT\} setkáni (=lit. Petr's interest in meeting)

Figure 9.73. Control nouns


Petrovo úsilí o zajištění Pavlovy přitomnosti na semináři. (=lit. Petr's effort in securing Pavel's presence in class)

Figure 9.74. Control nouns

umožnění vyřizování dokladů na počkání (=lit. enabling (of) issuing documents while waiting)
Figure 9.75. Control nouns

jeho šance na ziskání zakázek (=lit. his chance for getting orders)

Figure 9.76. Control nouns


Nutnost ucházení se o zaměstnání je přiměla k rychlému jednání. (=lit. Necessity (of) applying REFL for job them made to quick acting)

Figure 9.77. Control nouns

jeho ochota k užití kompetencí (=lit. his willingness to using competences)

### 9.2.4.7.2. A noun derived from an infinitive dependent on an adjective derived from a control verb

Control is involved also in cases in which a deverbal noun (in place of an infinitive) depends on a control adjective.

The controller does not depend on the adjective. The controllee (usually the subject) - if the control adjective modifies a noun - is controlled by the noun. Cf.:

- student usilující o \{\#Cor.ACT\} dokončeni fakulty (=a student trying to finish the faculty)

The Actor of the noun dokončení (=finishing) is controlled by the noun modified by the adjective usilujici (=trying), i.e. by the noun student. Cf. Fig. 9.78.

In those cases when the control adjective modifies a full verb (e.g.: uznat (=admit), shledat (=find), považovat (=consider)), the controller is one of the modifications of the verb, usually a noun in the accusative (the Patient). Cf.:

- Shledali ho ochotným $k$ \{\#Cor.ACT\} navázání kontaktu. (=They found him willing to make contact (lit. making contact))

The Actor of the noun navázání (=forming) is controlled by the Patient of the verb shledat (=find), by the pronoun ho (=him). Cf. Fig. 9.80.

The control adjective can be derived from a one-word control predicate as well as from a complex or verbonominal control predicate.

Examples:
poslanec odhodlaný $k$ \{\#Cor.ACT $\}$ odchodu ze strany (=a deputy determined to leave (lit. leaving) the party) Fig. 9.79
osoba usilující o \{\#Cor.ACT\} zajištění pořádku (=the person trying to secure (lit. securing) order) lidé ochotní ke \{\#Cor.ACT \} spolupráci (=people willing to cooperate (lit. cooperation))

Figure 9.78. Control adjectives

student usilujicí o dokončení fakulty (=lit. student trying at finishing faculty)

Figure 9.79. Control adjectives

poslanec odhodlaný k odchodu ze strany (=lit. deputy determined to leaving from party)

Figure 9.80. Control adjectives


Shledali ho ochotným k navázání kontaktu. (=lit. (They) found him willing to making contact)

### 9.2.4.7.3. A noun dependent on a noun derived from a control verb that cannot be modified by an infinitive

Also those control verbs can be nominalized that cannot be modified by an infinitive but that are rather modified by deverbal nouns one modification of which (usually the Actor) is controlled by a valency modification of the nominalized control verb. These are nouns derived from verbs like: podezirat (=suspect), stỉhat (=prosecute), obvinit (=accuse), očekávat (=expect), pochválit (=praise), omluvit se (=apologize), pracovat na něčem (=work on sth). Cf.:

- Soudkyně zahájila proti zatčené stíhání \{\#PersPron.PAT\} za nepovolené \{\#Cor.ACT\} ozbrojování. (=The judge initiated prosecution against the arrested woman for being armed illegaly)

The Actor of the noun ozbrojováni (=arming) is controlled by the non-expressed Patient of the noun stíhání (=prosecution) . Cf. Fig. 9.81.

More examples:
Čelí obvinění \{\#PersPron.PAT\} z \{\#Cor.ACT\} vyvolání roztržky. (=He is facing the accusation of being responsible for the incident)
pochvala $\{\# \mathrm{Gen} . \mathrm{PAT}\}$ za\{\#Cor.ACT\} dodržování limitů (=praise for keeping the limits)

Figure 9.81. Control nouns


Soudkyně zahájila proti zatčené stiháni za nepovolené ozbrojováni. (=lit. Judge started against (the) arrested prosecution for illegal arming)

### 9.2.4.7.4. A noun dependent on an adjective derived from a control verb that cannot be modified by an infinitive

Also those control verbs can become adjectives that cannot be modified by an infinitive but that are rather modified by deverbal nouns one modification of which (usually the Actor) is controlled. These are adjectives derived from verbs like: podezirat (=suspect), stihat (=prosecute), obvinit (=accuse), očekávat (=expect), pochválit (=praise), omluvit se (=apologize), pracovat na něčem (=work on sth).

The controller does not depend on the adjective derived from a control verb. One of the valency modifications of the deverbal noun is - in those cases when the control adjective modifies a noun controlled by this noun. Cf.:

- člověk podezřelýz \{\#Cor.ACT\} vraždy (=the person suspected from murder)

The Actor of the noun vražda (=murder) is controlled by the noun modified by the adjective podezřelý (=suspect), i.e. by the noun člověk (=person). Cf. Fig. 9.82.

In case the control adjective modifies a full verb (e.g.: uznat (=admit), shledat (=find), považovat (=consider)), the controller is one of the modifications of the verb, usually a noun in the accusative (the Patient). Cf.:

- Považovali ho za obviněného z \{\#Cor.ACT\} vraždy. (=They considered him accused of murder)

The Actor of the noun vražda (=murder) is controlled by the Patient of považovat (=consider), the pronoun ho (=him). Cf. Fig. 9.83.

More examples:
muž obviněnýz \{\#Cor.ACT\} krádeže (=a man accused of stealing)
pracovnik pochválený za \{\#Cor.ACT \} dodržování limitů (=the worker praised for keeping the limits)
Figure 9.82. Control adjectives

člověk podezřelýz vraždy (=lit. person suspected from murder)

## Figure 9.83. Control adjectives



Považovali ho za obviněného z vraždy. (=lit. (They) took him for accused of murder)

### 9.2.5. Quasi-control

Quasi-control is a specific grammatical coreference relation that can be found with multi-word predicates the dependent part of which is a noun with valency requirements (see Section 6.9, "Multi-word predicates"). The fact that certain combinations of a verb and noun form semantically a single unit has the consequence that the verb and noun share some of their valency modifications (or rather the modifications are identical in reference). This sharing is called quasi-control.

In the surface structure, the identical modifications are usually expressed only once; cf.:

- Poskytl Janovi ochranu (=He offered Jan protection).

The Addressee of the verb poskytnout (=provide) as well as the Patient of the noun ochrana (=protection) has the same reference (Jan). This shared modification can only be present once at the surface level (it is impossible to say: *Poskytl Janovi ochranu Jana (=lit. Offered Jan protection (of) Jan)).

Representing quasi-control in the tectogrammatical trees. A new node is inserted into the structure - usually as a valency modification of the non-verbal part of the predicate - with the \#QCor t-lemma. The identity in reference is signalled not only by the special t-lemma but also by the grammatical coreference relation between the newly established node and the other node with the same reference (the coreference relation is marked in the tree).

If none of the identical modifications is expressed at the surface level, a new node with the \#QCor t lemma is added to the structure, as a modification of the non-verbal part, and the newly established
node for the same modification of the verbal part has the \#Gen, \#PersPron, or \#Unsp t-lemma, according to the type of ellipsis (see Section 6.12.2, "Ellipsis of the dependent element").

Cf.:

- \{\#QCor.PAT \} Povinností koalice je schválit zákon. (=The Coalition's duty is to pass the bill)

The Actor of the verbal part of the verbonominal predicate, the verb schválit (=pass), is identical with the non-expressed Patient of the noun povinnost (=duty). In place of the non-expressed Patient of the non-verbal part of the predicate, a new node with the \# QCor t-lemma is inserted into the structure and the grammatical coreference relation between the node and the Actor of schválit is marked in the tree. Cf. Fig. 9.84.

- Karel podal \{\#QCor.ACT\} stižnost policii. (=Karel lodged a complaint at the police)

The Actor of the verbal part of the predicate (Karel) is identical in reference with the non-expressed Actor of the noun stiźnost (=complaint). In place of the non-expressed Actor of the nominal part of the predicate, a new node with the \# QCor t-lemma is inserted into the structure and the coreference relation between the node and the Actor of the verbal part of the predicate, the noun Karel, is marked in the tree. Cf. Fig. 9.85.

There is no coreference relation going to (the arrow pointing to) the node with the t-lemma \#QCor.
Types of quasi-control. Quasi-control concerns two types of multi-word predicates:

- complex predicates (see Section 6.9.3, "Complex predicates").

Detailed rules for representing quasi-control relations with complex predicates are to be found in Section 6.9.3.4.2, "Sharing of valency modifications between the verbal and nominal components (quasi-control)".

- verbonominal predicates; i.e. být + noun in the nominative or instrumental (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)").
!!! Quasi-control with verbonominal predicates is not represented consistently in the data; often, it is not represented at all.

Figure 9.84. Quasi-control


Povinností koalice je schválit zákon. (=lit. Duty (of) coalition is to pass law)
Figure 9.85. Quasi-control


Karel podal stižnost policii. (=lit. Karel lodged complaint to police)

## Coreference

### 9.2.6. Coreference in constructions with reciprocity

Grammatical coreference is also involved in constructions involving reciprocity (see Section 6.2.4.2, "Reciprocity"). If a new node with the \#Rcp t-lemma is inserted into the structure as a consequence of it being non-expressed (which is a result of reciprocity), there is always a grammatical coreference relationship indicated in the tree, going from the node with the \#Rcp t-lemma to the node it is in the reciprocal relation with. Three basic situations can be found:

- there is a grammatical coreference relation between the node with the \#Rcp t-lemma and a single node for a full lexical item. This is the case when two elements in the reciprocal relation are expressed by a noun in plural or a noun that is semantically plural. Cf.:
- Sultáni se vystřidali $\{\# \mathrm{Rcp} . \operatorname{PAT}\}$ na trůnu. (=lit. Sultans REFL changed on throne)

As there is reciprocity involved in the construction, the non-expressed Patient of the verb vystrídat (=change) corefers with the Actor of the verb, which is expressed by a plural noun form of sultán. There is a grammatical coreference relation going from the newly established node with the \#Rcp t-lemma to the node for the noun sultáni (=sultans). Cf. Fig. 9.86.

- there is a grammatical coreference relation between the newly established node with the \#Rcp tlemma and a paratactic structure root node. This happens if two coordinated modifications are in a reciprocal relation. Cf.:
- Starý sultán a nový sultán se vystřidali $\{\# \mathrm{Rcp} . \mathrm{PAT}\}$ na tri̊nu. (=lit. Old sultan and new sultan REFL changed on throne)

As a result of reciprocity, the missing Patient of the verb vystrídat (=change) corefers with the Actor of the verb, which is expressed by the coordination (stary') sultán a (nový) sultán. There is a grammatical coreference relation going from the newly established node with the \#Rcp tlemma to the paratactic structure root node, the conjunction $a(=a n d)$. Cf. Fig. 9.87.

- there is a grammatical coreference relation between the newly established node with the \#Rcp tlemma and two nodes for full lexical items. This happens if two elements are in the reciprocal relation which are in a kind of hypotactic coordination, i.e. connected by the preposition $s+7$. Cf .:
- Starý sultán s novým sultánem se vystřidali \{\#Rcp.PAT\} na tri̊nu. (=lit. Old sultan with new sultan REFL changed on throne)

As there is reciprocity involved in the construction, the non-expressed Patient of the verb vystrídat (=change) corefers with the Actor of the verb, which is expressed by two nouns, connected by a preposition, namely starý sultán s novým sultánem (=lit. old sultan with new sultan). The grammatical coreference relation is going from the newly established node with the \#Rcp tlemma to the node for (starý) sultán as well as to the node for (nový) sultán. Cf. Fig. 9.88.

Coreference in constructions in which there is reciprocity between modifications of nouns is represented in a similar way.

For a detailed discussion of reciprocity and more examples, see Section 6.2.4.2, "Reciprocity".

Figure 9.86. Coreference in constructions with reciprocity


Sultáni se vystřidali na tri̊nu. (=lit. Sultans REFL changed on throne)
Figure 9.87. Coreference in constructions with reciprocity


Starý sultán a nový sultán se vystrídali na tri̊nu. (=lit. Old sultan and new sultan REFL changed on throne)

Figure 9.88. Coreference in constructions with reciprocity


Starý sultán s novým sultánem se vystrídali na tri̊nu. (=lit. Old sultan with new sultan REFL changed on throne)

### 9.3. Textual coreference

Textual coreference is generally taken to mean the use of various linguistic means (pronouns, synonyms, generalising nouns etc.) which function as anaphoric (occasionally cataphoric) reference devices. This reference is not realised by grammatical means alone, but also via context. Textual coreference devices are vague by nature and the identification of a coreferred element based purely on context is problematical, and therefore our approach is to concentrate for the time being only on the most frequent textual co-reference devices, i.e pronouns. The following textual coreference devices are identified:

- 3rd person personal and possessive pronouns; 1st and 2nd persons are excepted. (In the tectogrammatical tree, personal and possessive pronouns have the single t-lemma \#PersPron.)
- the demonstrative pronouns ten, ta, to (=that).
- with textual ellipsis, where a new node with the t-lemma substitute \#PersPron is added to the tectogrammatical tree (textual coreference is not identified here when the added node represents a pronoun in the 1 st or 2 nd person).
!!! Coreference with newly established nodes is closely linked to the selection of the t-lemma substitute, which in fact depends on the type of coreference (grammatical coreference - textual coreference - the node does not corefer; see Section 6.12.2, "Ellipsis of the dependent element"). When a dependent valency modification of a noun, adjective or adverb is added to the structure, for reasons of simplification and acceleration of the annotation, the working t-lemma \#Gen is se-
lected, and therefore any coreference at these nodes is for the time being unrepresented (see Section 6.2.4.1, "General arguments and unspecified Actors").

Coreference is for the time being unrepresented with pronominal adverbs (tam (=there/thither), sem (=here/hither), tady (=here), tak (=thus) etc.) and in other pronominal expressions.

Cases of pronouns with which coreference is normally represented (on (=he/it), jeho (=his/its), ten (=that)) that do not corefer, are described in Section 9.3.2, "No textual coreference".

Transitional type of textual coreference (\#Unsp). A transitional type between non-coreference and textual coreference involves cases where the Actor of a verb represented by a newly established node with the $t$-lemma \#Unsp is not specified. The coreferred element of the Actor unexpressed at surface level cannot be precisely determined: it refers to the preceding text rather than to a specific item, and therefore a node with the explicitly anaphoric t-lemma \# PersPron, is not used. Although the referent of the newly established node is unclear, the group of people (or objects) to which the node refers can be at least partially identified from the context. Cf.:

- U Nováků \{\#Unsp.ACT\} dobře vaří. (=They cook well at Nováks'.)

No explicit coreferred element of the Actor of the verb vařit (=to cook) occurs in the text; however on the basis of the context it can be deduced that it is probably the chefs at the Nováks' restaurant. A node with the t-lemma \#PersPron (which stands for an explicit coreferred element) is therefore not selected, nor is a node with the t-lemma \#Gen (the Actor is not generalised: it can be more closely specified), but a node with the t-lemma \#Unsp; however, no coreference relation is marked in the tree.

On this type, see Section 6.2.4.1, "General arguments and unspecified Actors".
Textual coreference is represented by the attribute coref_text.rf and coref_special (see Section 9.1, "Representing coreference in the tectogrammatical trees").

### 9.3.1. Types of textual coreference

Three basic types of reference are distinguished under the concept of textual coreference:

- reference to a specific, explicit coreferred element (see Section 9.3.1.1, "Explicitly coreferred element"),
- reference to a segment (see Section 9.3.1.2, "Reference to a segment"),
- exophoric reference (see Section 9.3.1.3, "Exophora").


### 9.3.1.1. Explicitly coreferred element

One speaks of explictly coreferred elements in cases where a specific sub-tree or leaf of the tectogrammatical tree for the given sentence or an adjacent sentence can be identified as the coreferred element of a pronoun.

## Cf:

- Dobiaš skoro všechno dělá s námi, jeho pověstná impulzivnost se přenáší i na nás, a to je dobře. (=Dobiaš does almost everything with us; his notorious spontaneity carries over to us as well, and that is a good thing.)

Dobiaš skoro všechno dělá s námi, jeho pověstná impulzivnost se přenáší i na nás, a to je dobře. (=Dobiaš does almost everything with us; his notorious spontaneity carries over to us as well, and that is a good thing.)

## Coreference

The coreferred element of the pronoun jeho (=his) ( t _lemma=\#PersPron) is the expression Dobiaš (=Dobiaš) (a leaf of the tree). The coreferred element of the pronoun to (=that) is the entire clause jeho pověstná impulzivnost se přenáší i na nás (=his notorious spontaneity carries over to us as well) (a sub-tree). Cf. Fig. 9.89.

The explicitly coreferred element is represented by the attribute coref_text.rf, containing identifiers of the target nodes (see Section 9.1, "Representing coreference in the tectogrammatical trees").

In accordance with the opportunities to refer to the respective parts of the tectogrammatical tree, the following cases of explicit coreferred elements are found (see also Section 9.1, "Representing coreference in the tectogrammatical trees"):

- the coreferred element is a leaf of the tectogrammatical tree. Cf.:
- Myslite, že rozhodnutí NATO, zda se \{\#Pers Pron\} rozšírí, čí nikoli, bude záviset na postoji Ruska? (=Do you think that NATO's decision whether it will expand or not will depend on Russia's attitude?)

The coreferred element of the elided personal pronoun for the subject, represented by the node t-lemma \#PersPron, is a leaf of the tree, the node for the word NATO. Cf. Fig. 9.90.

- the coreferred element is the root of the sub-tree.

The governing node of a sub-tree is the coreferred element in three cases:

- the coreferred element is the root of the sub-tree only (without daughter nodes);
- the coreferred element is the entire sub-tree;
- the coreferred element is the root of the sub-tree and only certain daughter nodes of this governing node (not the entire sub-tree).
We are aware of the semantic shifts this can give rise to, and we adopt this solution for reasons of a lack of more adequate resources.

Cf. the examples:

- Ale je něco jiného, když je někdo podnikatel a pak jde do politiky, anebo jestli někoho politické změny vynesou na špičku a on toho pak využívá k hospodářské činnosti a zastává vysoké funkce ve velkých firmách. (=But it is a different matter if someone is a businessman and then goes into politics, or if someone is brought to prominence by political changes and he then takes advantage of this for business activities and occupies senior positions in large companies.)

The coreferred element of the pronoun toho (=(of) this) is the dependent clause jestli někoho politické změny vynesou na špičku (=if someone is brought to prominence by political changes). The effective root of this dependent clause, the node for the verb vynést, is identified as the coreferred element. Cf. Fig. 9.91.

- Generál kromě toho připravuje nařízení, podle něhož se na něj budou moci obrátit všichni, kteři se domnivají, že se jim děje bezpráví; hodlá tím předejít tomu, aby se redukce armády stala záminkou $k$ vyřizování účtů. (=Furthermore, the general is preparing a directive which will enable all those who consider they are suffering injustice to approach him; in doing so he intends to prevent reductions in the army being used as an excuse to settle accounts.)

The coreferred element of the pronoun tim (=(by) this) is the entire sentence Generál kromé toho připravuje nařizení, podle něhož se na něj budou moci obrátit všichni, kteří se domnívají, že se jim děje bezpráví. (=Furthermore, the general is preparing a directive which will enable all those who consider they are suffering injustice to approach him.) The effective root of this sentence, the node for the verb pripravovat (=to prepare) is identified as the coreferred element. Cf. Fig. 9.92.

- Two nodes of the tectogrammatical tree are the coreferred element. Cf.:
- Marie vzala Vlastu do divadla, kde na né čekal Marek. (=Marie took Vlasta to the theatre, where Marek was waiting for them.)

The coreferred element of the personal pronoun na ně (=for them) (represented in the tectogrammatical tree by a node with the t-lemma \#PersPron) is both nodes (Marie and Vlasta), which must be referenced separately. Cf. Fig. 9.93.

This is a temporary technical solution, which is also customary in constructions with hypotactic coordination of the tatineks maminkou (=daddy and mummy) type; see Section 9.5.2.1, "Referring to a modification with the ID functor".

Figure 9.89. Explicit coreferred element


Dobiaš skoro všechno dělá s námi, jeho pověstná impulzivnost se přenáší i na nás, a to je dobře. (=lit. Dobiaš almost everything does with us; his notorious spontaneity REFL carries_over also to us, and that is good.)

Figure 9.90. Explicit coreferred element


Myslite, že rozhodnutí NATO, zda se rozšǐrí, či nikoli, bude záviset na postoji Ruska? (=lit. Do_ you_think that decision (of) NATO whether (it) REFL will_expand or not will depend on attitude (of) Russia?)

Figure 9.91. Explicit coreferred element


Ale je něco jiného, když je někdo podnikatel a pak jde do politiky, anebo jestli někoho politické změny vynesou na špičku a on toho pak využivá k hospodárské činnosti a zastává vysoké funkce ve velkých firmách. (=lit. But (it) is something else if is someone (a) businessman and then goes into politics, or if someone.ACC political changes.NOM bring to prominence and he this then takes_advantage_offor business activities and occupies senior positions in large companies.)

Figure 9.92. Explicit coreferred element


Generál připravuje nařízení, podle něhož se na něj budou moci obrátit všichni, kterým se děje bezpráví, hodlá tím předejít nedorozuměním. (=lit. (The) general is preparing (a) directive according to_which REFL at him will_be able to_turn all_those who REFL is_happening injustice; (he) intends by_that to prevent (from) understanding.)

Figure 9.93. Explicit coreferred element


Marie vzala Vlastu do divadla, kde na ně čekal Marek. (=lit. Marie took Vlasta to (the) theatre, where for them was_waiting Marek.)

### 9.3.1.2. Reference to a segment

One speaks of reference to a segment in cases where a pronoun refers to a substantial section of a text.
Reference to a segment is represented by the attribute coref_special, in which the value segm is entered.

This concerns the following cases:

- the coreferred element comprises two or more specific sentences. This mainly involves a simple enumeration of items, a collection of consecutive sentences. They are not referenced separately, but all together, as a unit. Cf.:
- Rozprava o podobě reformy veřejných financí bude zahájena ve středu. Všechna jednání proběhnou za zavřenými dveřmi. Lidovým novinám to sdělil včera ministr financi.. (=The discussion about the nature of the reform of public finance will begin on Wednesday. All negotiations will take place behind closed doors. Lidové noviny (The People's Daily) was informed of this yesterday by the Finance Minister.)

The pronoun to (=this) in the final sentencce refers to both preceding sentences. In the attribute coref_special, at the node for the pronoun to (=this), the value segm will be entered.

Additional example:


#### Abstract

Podle Kohla nelze zapomenout na to, že Německo přepadlo 22. června 1941 Sovětský svaz. Němci jménem Německa přivodili ruskému lidu nesmírné utrpení. Stejně tak nelze zapomenout, co Rusové později způsobili Němcům. $Z$ toho [coref_special=segm] všeho si chceme vzít společné poučeni. (=According to Kohl, one must not b̄e allowed to forget that on 22nd June 1941 Germany attacked the Soviet Union. The Germans, in the name of Germany, inflicted tremendous suffering on the Russian people. Likewise one must not be allowed to forget what the Russians later did to the Germans. We wish to draw our shared lessons from all of this.)


- the coreferred element cannot be identified as a specific node, but by inference it can be deduced from a segment of text, on the basis of the context. Cf.:
- Předsedové a ekonomové družstev užjsou nachystaní na likvidaci dlužnikư. Řekněme, že přijdou za vlastnikem 25 ha v družstvu. Každý ten hektar má hodnotu okolo 100 tisic. Banka nabídne 10 tisic za hektar a vlastníkovi nezbude nic jiného než to prodat, protože nazittrí mu banka nabidne už třeba jen 8 tisíc. Chci tím řici, že nebude všechno v transformačním procesu úplně čisté. (=The chairmen and economists in the cooperatives are already prepared to liquidate their debtors. Let us say that each owner has 25 hectares in the cooperative. Each hectare has a value of around 100 thousand. The bank will offer 10 thousand per hectare and the owner will have no other option than to sell, because on the following day the bank will then offer, say, only 8 thousand. By this I want to say that nothing in the transformation process will be entirely pure.)

The pronoun tim (=by this) in the final sentence refers to the preceding segment of the text. In the attribute coref_special, at the node for the pronoun tim (=by this), the value segm will be entered.

Additional example:
Potentáti v bance koupí za deset, prodají si za patnáct. Ale povede to k rychlému přerodu. Zmizí výméry kolem 25 ha, přibude vlastníků kolem 500. Odhaduji, že do dvou let budou schopni splatit bance dluh a třetím rokem už budou dělat na sebe. A na práci najmou jen schopné lidi, bude to $v$ jejich zájimu. Kdo to pochopil, má náskok. [ coref_special=segm] (=The potentates in the bank will buy for ten, and sell for fifteen. But this will lead to a rapid rebirth. Holdings of around 25 hectares will disappear and there will be around 500 more owners. I estimate that within two years they will be in a position to pay off their debt to the bank and in the third year they will work for themselves. And they will employ only capable people - it will be in their interest. Those who understand this will have an advantage.)

### 9.3.1.3. Exophora

In exophora a pronoun refers to situations or reality external to the text.
Exophoric reference is represented by the attribute coref_special, which contains the value exoph.
Cf.:

- Vobdobí vrcholíciho léta roku 1939 již málokdo v Evropě mohl uvěřit nadějeplným slovi̊m britského ministerského předsedy Chamberlaina, proneseným z balkonu Buckinghamského paláce po návratu z Mnichova: Myslim, že je to mír na celou naši dobu. (=After the critical summer months of 1939 hardly anyone in Europe could now lend credence to the optimistic words of the British prime minister Chamberlain spoken from the balcony of Buckingham Palace on his return from Munich: I believe it is peace in our time.)

The pronoun to (=it) in the final sentence refers to a reality beyond the text, the Munich agreement. In the attribute coref_special, at the node for the pronoun to ( $=i t$ ), the value exoph will be entered.

### 9.3.2. No textual coreference

The pronouns we are discussing (ten (=that), on (=he/it), jeho (=his/its)) are not always coreferential. In certain cases they have no coreferred element and therefore no coreference is represented in the tree.

This applies in the following cases:

- idioms and set phrases.

Examples:
Tak je tomu i v těch případech, kdy dosavadní domovnici užívali byty na základě dohod s bytovými podniky nebo domovními správami, podle kterých jim byl přidělen byt po dobu výkonu domovnických praci. (=This is the situation even in cases where the existing concierges occupied the apartments on the basis of agreements with freeholders or housing departments, allocating the apartment to them for the duration of their employment as concierges.)

Mezitím do Pchanmundžomu, odkud byli v dubnu vypuzeni pozorovatelé České republiky, přijiždí i mnoho Korejců a hledí nepřitomné do dálky, na sever. Moc toho ovšem v tomto prostoru k vidění není. (=Meanwhile many Koreans are also coming to Panmunjom, from where observers from the Czech Republic were expelled in April, and they look blankly into the distance, towards the north. There is not much to be seen in that area, however.)

- intensifiers, pronouns carrying the meaning of the functor ATT and pronouns in a position of emphasis.

Examples:
To ale prši! (=Oh how it's raining!)
Ale ono je jedno, kdo dá gól, důležité je vyhrát; a jméno střelce, to je až na druhém mistě. (=But it's all the same who scores a goal. The main thing is to win, and the name of the goal-scorer, that's a secondary matter.)

This group also includes the pronoun ten (=that) in cleft or pseudocleft constructions (see Section 6.5.3.1, "Correlative pairs with the supporting expression "ten""); for example:

Ostatně není to právě přehliživý přistup některých představitelů ODS ke všem oponentům, co zpi̊sobilo setrvalý pokles volebnich preferencí této strany? (=Isn't it after all precisely that contemptuous attitude of certain representatives of ODS towards all their opponents that has resulted in a persistent decline in this party's share of the vote?)

- occurrences of the empty pronoun (over-usage) in direct speech.

These are cases where the pronoun has an emphasising function or where it provides verbal padding; therefore no coreferred element can be found for it.

Examples:
"Nedokáži ted' odhadnout dopad zákona na Úřad pro vyšetřování, ale myslím, že to rozhodně neztizí jeho práci nějakým markantním způsobem," řekl Ruml. (= "I am unable to estimate the impact of this law on the Bureau of Investigation, but I think that that by no means impedes its work in any serious way," said Ruml.)

To máte těžké. (=That is difficult, you know.)
... jak si už dlouho představuje její cestu do ciziny, do Španělska nebo Řecka, kam ji to táhne. (=... as she has been imagining her journey abroad for a long time, to Spain or Greece, to where she is drawn.)

- the pronoun ten (=that) in the attributive position.

Example:
Tento velký problém není možné vyřešit za hodinu. (=This great problem cannot be solved within an hour.)

- certain cases of the pronoun ten (=that) as a noun:
- ten $(=$ that $)+$ dependent relative clause,
- ten (=that) + adjective.

On these cases, see Section 9.5.2.3, "No (textual) coreference with the pronoun "ten" used as a noun".

### 9.4. Survey of types of coreference with respect to the t -lemmas of the coreferring nodes

The different types of coreference (textual and grammatical) with regard to the $t$-lemmas of the coreferring nodes are summarized in Table 9.5, "Types of coreference". The table only lists the t-lemmas (including t-lemma substitutes) that are relevant for the representation of coreferential relations. Hence, the table does not include e.g. the t-lemmas \#Forn; , \#Idph; \#Neg; etc.

The X symbol in the column with the heading "Surface structure of the sentence" means that the given node is not present in the surface structure of the sentence.

Table 9.5. Types of coreference

| Type of coreference |  | Surface structure of the | t-lemma | Representation of |
| :---: | :---: | :---: | :---: | :---: |
| Textual | Explicitly coreferred element | 3rd person pronoun (on) | \#PersPron | coref_text.rf |
|  |  | the pronoun ten used as a noun | ten |  |
|  |  | X | \#PersPron |  |
|  | Segment | certain uses of the pronoun ten used as a noun | ten | coref_special=segm |
|  |  | 3rd person pronoun (on) | \#PersPron |  |
|  | Exophora | the pronoun ten used as a noun | ten | coref_special=exoph |
|  |  | 3rd person pronoun (on) | \#PersPron |  |
|  |  | X | \#PersPron |  |
| Grammatical | Reflexive pronouns | personal and possessive reflexive pronouns (se, sviuj) | \#PersPron | coref_gram.rf |
|  | Reciprocity | X | \#Rcp |  |
|  | Relative elements | - relative pronouns in relative clauses (který, jaký, jenž, co) <br> - relative adverbs in relative clauses ( $k d y, k d e, k a m$, odkud) <br> - the connective což | který, jaký, co kdy, kde co |  |
|  | Coreference with verbal modifications that have dual dependency | X | - \#Cor; (in place of the non-expressible subject of a non-finite verb form) <br> - \#Cor; (in place of the non-expressed subject of a finite verb form in a predicative-complement clause) |  |
|  | Control | X | \#Cor |  |
|  | Quasi-control | X | \#QCor |  |
| Special types of coreference | Unspecified Actor | X | \#Unsp | NO |
| No coreference | General argument | X | \#Gen | NO |
|  | Ellipsis of the governing node | X | \#EmpNoun |  |
|  |  | X | \#EmpVerb |  |
|  |  | the pronoun ten | ten |  |


| Type of coreference |  | Surface structure of the <br> sentence | t-lemma | Representation of <br> coreference |
| :--- | :--- | :--- | :--- | :--- |
| No <br> corefer- <br> ence in- <br> dicated | 1st and 2nd person pro- <br> nouns | \#Pers Pron | NO |  |
|  | pronominal adverbs (tam, <br> sem, tak etc.) | tam, tady, tak | NO |  |
|  | X | \#Obl fm |  |  |

### 9.5. Working approaches to certain aspects of coreference

During the annotation of coreference relations, certain more or less technical solutions were adopted. Some of them belong to the category of open issues, which will have to be solved in the future. The following subsections discuss these problematic topics and describe the working approaches adopted for the annotation.

### 9.5.1. Preserving the coreference chains

As for grammatical coreference, grammatical rules are followed; with textual coreference, the textual cohesion and coreference chains are preserved. The coreference chains are not always simple and straightforward, they do not always connect one node with another; they can also split. The current approach to the annotation of coreference does not allow for mutual interconnection of all the individual parts of a coreference chain; therefore the following rules are to be respected:

- if the antecedent consists of several nodes in the tree that are dependent on each other, only the immediately preceeding node is co-referred to;
- if there is a choice between an antecedent and postcedent the antecedent is preferred (in the future, an extended notion of coreference would secure the complete interconnection of the individual parts of a coreference chain);
- if it is necessary to choose one of two antecedents that split the coreference chain, the leftmost antecedent is preferred (for reasons related to topic-focus-articulation);
- if there is a choice between two antecedents with a different lexical content (the current approach to coreference does not allow for any indication of their referential identity), it is only referred to the closer one (again, under the extended approach to coreference, it will be possible to interconnect all parts of a coreference chain).


### 9.5.2. Some temporary solutions

### 9.5.2.1. Referring to a modification with the ID functor

In those cases when the coreferred node is a noun phrase with the so called nominative of identity (see Section 8.8, "Identifying expressions"), it is not the modification in the position of the nominative of identity (functor=ID) that enters into the coreference relation, but rather its governing noun.

An exception are cases in which the modification in the nominative of identity (unlike its governing node) agrees in morphological categories with the coreferring node. Then the node with the ID functor is taken to be the coreferred element. Cf.:

- Konsorcium ČeTel, který založila americká firma Ameritech společně s německým Deutsche Telekom, se uchází o partnerství v SPT Telecom. (=lit. Consortium.neut ČeTel.masc, which.masc ...)

The relative pronoun kterýy (=which) refers to $\check{C ̌} \mathrm{Tel}$ (the nominative of identity, functor=ID), because they agree in morphological categories. Cf. Fig. 9.94.

If the coreferring node agrees both with the governing node and the nominative of identity, it is the governing node that is taken to be the coreferred node.

Figure 9.94. Referring to a modification with the ID functor


Konsorcium ČeTel, který založila americká firma Ameritech společněs německým Deutsche Telekom, se uchází o partnerství v SPT Telecom. (=lit. Consortium ČeTel, which.ACC founded American company.NOM Ameritech together with German Deutsche Telekom, REFL applies for partnership in SPT Telecom)

## Coreference

### 9.5.2.2. Referring with the type "tatínek s maminkou"

If the coreferred element is a group of nodes connected not in coordination but in a hypotactic form, by means of the preposition $s+7$ (the second node is dependent on the first one and has the ACMP functor), the coreference relation goes to both these nodes: the coref_text.rf attribute of the coreferring nodes contains the identifiers of both nodes. This only applies if the verb and the coreferring node are in plural.

Cf.:

- Aby mohla pokračovat kvalifikace tenisového turnaje žen, vzali včera koště do ruky i ředitel soutěže Vladimír Šafařik s rozhodčím Antonínem Bubenikem a na štvanických kurtech pomáhali \{\#Cor.ACT\} vymetat louže. (=... also the director Vladimir Šafařikk with the referee Antonín Bubenik ... helped.pl...)

The controlled Actor of the infinitive vymetat is controlled by the whole expression ředitel soutěže Vladimír Šafařik s rozhodčím Antoninem Bubenikem. The coref_text.rf attribute of the controlled subject (t_lemma=\#Cor) contains the identifiers of both nodes: Šafařik as well as Bubenik. Cf. Fig. 9.95.

Another example:
Před odjezdem $k$ dnešnímu ligovému utkání v Chebu očekávají návštěvu spartanského prezidenta Macha s manažerem Nehodou, kteří by měli podat vysvětlení. (=... arrival of Sparta's president Mach with the manager Nehoda, which.pl...) Fig. 9.96

If there is no formal indication that the coreferring node refers to several nodes, there is only one coreferred node, i.e. the governing node of the noun phrase.

Figure 9.95. Referring to two nodes


Aby mohla pokračovat kvalifikace tenisového turnaje žen, vzali včera koště do ruky i ředitel soutěže Vladimír Šafařík s rozhodčím Antonínem Bubenikem a na štvanických kurtech pomáhali vymetat louže. (=lit. So_that can continue qualification (of) tennis competition (of) women, took yesterday broom into hand also director (of) competition Vladimír Šafařik with referee Antonín Bubenik and on Štvanice courts helped sweep puddles)

Figure 9.96. Referring to two nodes


Před odjezdem $k$ dnešnimu ligovému utkání v Chebu očekávají návštěvu spartanského prezidenta Macha s manažerem Nehodou, kteří by měli podat vysvětlení. (=lit. Before departure for today's league match in Cheb expect visit (of) Sparta's president Mach with manager Nehoda which AUX should give explanation)

### 9.5.2.3. No (textual) coreference with the pronoun "ten" used as a noun

The pronoun ten does not enter into coreference relations in certain uses (positions). Except for the cases described in Section 9.3.2, "No textual coreference", the pronoun ten does not enter into coreference relations also in two more types of construction:

- ten + relative clause;
- ten + adjective.
!!! These are special cases; the reason for analyzing these cases without coreference is to keep the annotation throughout PDT as consistent as possible. All these solutions are only temporary and call for revision.
"Ten" + relative clause. In those constructions in which ten is a dependent node and, simultaneously, it governs a relative clause, no coreference is marked in the tree.

Example:
Srovnáme-li současný plán rozvoje dálnični sitě s tím, jaký byl přijat v roce 1991, výrazně se změnil. (=lit. If we compare the current plan ... with the one (lit. that) which was accepted in 1991...)

In principle, the relative clause could be taken to be the coreferred node. However, the relation between ten and the relative clause is already expressed by indicating the grammatical coreference of the relative
pronoun (see Section 9.2.2, "Coreference with relative elements"); therefore, the information is not duplicated by marking the textual coreference as well.
"Ten" + adjective. In those constructions in which ten governs a dependent adjective, no coreference is marked in the tree.

Examples:
Je to možná tragedia dell' arte o nepřátelích, kteří jsou posedlí touhou být spolu, a dokonce být tím druhým. (=...that are obsessed with the desire to be together, and even to be the other one (lit. that other))

Propadají podobnému omylu jako Platon, který věděl, co není v pořádku, rozuměl tlakům či neštěstí, pod kterým lidé trpěli, zmýlil se však v tom základním, totiž že dokáže tento tlak zmenšit a obnovit štěstí lidí, pokud se mu je podaří přivést zpět ke kmenovému systému. (=...he was wrong in the basic thing (lit. that basic)...)

Na Pankráci bylo v letech 1943-1945 popraveno celkem 1079 lidí. Sto třicet z nich bylo ocejchováno značku H-hospodářský delikt, 276 dostalo značku O, která znamenala, že hospodářský růst nebo vlastenecký delikt nepřipadá v úvahu. Myšlena tím byla potulka, individua práce se štitící a obyčejná kriminalita. A tahle individua a jejich potomci že dostanou prachy z našich dani? ozvou se hlasy na konci měsice září, když parlament přijme zákon o odškodněni obětem nacismu. Političtí ano, kriminálníci ne! Řeknou ti umírnění. (=...the moderate ones (lit. that moderate) will say)

This is caused by the fact that in most cases, it is impossible to find the coreferred node, or it can be expressed by something like "lidé (=people)". The combination of ten and an adjective can be considered a single unit equivalent to a noun; i.e. ten druhý (=lit. that other) like druh (=partner), druhý člověk (=the other person), to základní (=lit. that basic) like základnívěc (=the basic thing), základ (=the base), ti umirnění (=those moderate) like umirněni lidé (=the moderate people). In order to keep a certain degree of consistency, neither those cases in which it is possible to find the coreferred node are analyzed as involving coreference.

## Chapter 10. Topic-focus articulation

On the tectogrammatical level, also the topic-focus articulation (TFA) is annotated. We consider TFA to be a phenomenon of the underlying structure of the sentence - two surface realizations of a sentence with differing TFA correspond to two different tectogrammatical trees.

TFA annotation comprises two phenomena:

- contextual boundness (see Section 10.2, "Contextual boundness").

Contextual boundness is represented by the values of the attribute $t f a$ for each node of the tectogrammatical tree.

- communicative dynamism (see Section 10.3, "Communicative dynamism").

Communicative dynamism is represented by the underlying order of nodes.
Annotated trees therefore contain two types of information - on the one hand the value of contextual boundness of a node and its relative ordering with respect to its sister nodes reflects its function within the topic-focus articulation of the sentence, on the other hand the set of all the TFA values in the tree and the relative ordering of subtrees reflects the overall functional perspective of the sentence, and thus enables to distinguish in the sentence the complex categories of topic and focus (however, these are not annotated explicitly).

### 10.1. Signalling TFA

TFA of the Czech sentence is signalled mainly by:

- surface word order (see Section 10.1.1, "Surface word order"),
- intonation (see Section 10.1.2, "Intonation").


### 10.1.1. Surface word order

Word order is in Czech the most important means of communicating TFA. There are the following strong tendencies concerning surface word order in Czech:

- in Czech surface word order, the boundary between contextually bound and contextually non-bound expressions (see Section 10.2, "Contextual boundness") is signalled by the position of the governing verb. In unmarked cases, direct modifications of the governing verb appearing before it in the surface word order are contextually bound.

The value of dependent modifications occurring deeper in the tree is not signalled by their position to the left or to the right from the governing verb. In surface word order, before the verb there can also appear contextually non-bound modifications of contextually bound expressions depending directly on the verb.

- direct modifications of the governing verb that are contextually non-bound have an analogous tendency to appear after the verb.
- there is a strong tendency of placing focus proper (see Section 10.3.1.1, "Focus proper") at the very end of the sentence (see Section 10.1.2.1, "Intonation centre").


## Compare:

- Černý kocour se napil ze své misky. (=lit. (The) black tomcat drank from its bowl.)

The contextually bound direct modification of the governing verb kocour (=tomcat) appears to the left from the verb. The contextually non-bound direct modification of the governing verb miska (=bowl) appears to the right from the verb.

The more deeply occurring modification černý (=black) is contextually non-bound, but it appears before the governing verb together with its governing contextually bound expression appearing before the verb. The contextually bound modification svij (=its) appears after the governing verb together with its governing contextually non-bound expression.

Cf. Fig. 10.4 in Section 10.3.1, "Basic guidelines for the ordering of nodes in a tectogrammatical tree".

Particularly two types of constructions constitute exceptions to these general tendencies: constructions with the verb on "the second position" in the sentence and constructions with the so-called subjective order.

Constructions with the verb on "the second position" in the sentence. The governing verb sometimes does not appear on the boundary between contextually bound and contextually non-bound expressions (depending directly on the verb), but it appears immediately after the first sentence part, on "the second position " in the sentence (both with the boundary and without the boundary in that position). In this case contextually bound expressions can appear to the right from the verb.

## Compare:

- Prezident Klaus odjel včera na zahraniční návštěvu. (=lit. President Klaus left yesterday for (an) international visit.)

The contextually bound expression včera (=yesterday) appears to the right from the verb, the verb is on "the second position" in the sentence. Cf. Fig. 10.5 in Section 10.3.1, "Basic guidelines for the ordering of nodes in a tectogrammatical tree".

Constructions with the so-called subjective order. In unmarked cases (the so-called objective order) the modifications of the verb appearing before it are contextually bound. In the subjective order, however, there are contextually non-bound modifications appearing before the verb. Due to the pragmatics the most dynamic part of the sentence is placed at the beginning.

## Compare:

- Taky KAREL se doma ukázal. (=lit. Also Charles _at_home showed_up.)

The contextually non-bound expressions taky (=also) and Karel (=Charles) appear to the left from the governing verb, the sentence has the subjective order (see also Section 10.3.1, "Basic guidelines for the ordering of nodes in a tectogrammatical tree"). Cf. Fig. 10.6.

The subjective order is admittedly a strongly marked phenomenon occurring mostly in spoken language, where it is adequately signalled by the intonation centre (see Section 10.1.2.1, "Intonation centre"). In written language, we can identify the subjective order mainly from the fact that contextually bound expressions are placed at the end of the sentence, the verb itself is usually also contextually bound.

### 10.1.2. Intonation

Information concerning TFA cannot always be obtained from the written context. An important indicator of TFA of a sentence is its intonation, which is inseparably linked to the meaning of the sentence in given context.

The annotation of TFA has to take into account also the spoken form of the sentence. In a particular context, every sentence has a natural pronunciation, and we suppose that as people can spontaneously produce sentences with appropriate word order and intonation, they are able to comparatively well assign the correct intonation to a written sentence.

Identifying the intonation of the sentence is a clue for determining the contextual boundness of individual expressions in the sentence; based on the correct identification of the intonation the following key components of TFA are assigned: focus proper (see Section 10.3.1.1, "Focus proper") and contrastive contextually bound expressions (see Section 10.2.2.2, "Contrastive contextually bound expression (value $c$ in attribute $t f a$ )").

For the assignment of TFA, it is essential to identify from the intonation of the whole sentence:

- intonation centre (see Section 10.1.2.1, "Intonation centre"),
- contrastive stress (see Section 10.1.2.2, "Contrastive stress").


### 10.1.2.1. Intonation centre

By the intonation centre of a sentence we mean the word (prosodic unit) that in the spoken form carries the "sentential" stress. It is the most important prosodic unit of the sentence, usually placed at the end. It is characterized by a falling pitch contour and increased volume, but it is constituted also by other factors (speech tempo, voice timbre and others). Every complete sentence contains an intonation centre.

We suppose that the intonation centre in a Czech sentence signals its focus proper (see Section 10.3.1.1, "Focus proper"). If the sentence ends with a nominal group (noun phrase), the intonation centre can be placed on its last member instead of the focus proper.
(In the examples, the intonation centre is marked by capital letters.)

### 10.1.2.2. Contrastive stress

Contrastive stress is a specific stress characterized by a rising pitch contour. In the sentence it signals contrastive contextually bound expressions (see Section 10.2.2.2, "Contrastive contextually bound expression (value $c$ in attribute $t f a$ )"). Contrastive contextually bound expressions do not have to be signalled by a contrastive stress, contrastive stress is optional (the presence of contrastive stress is governed by other factors, primarily by the speech tempo and the carefulness in pronunciation).

We suppose that an expression on which a contrastive stress can be placed in the spoken form of a sentence is contrastive, contextually bound.

### 10.2. Contextual boundness

Contextual boundness is a property of an expression (be it expressed or absent in the surface structure of the sentence) which determines whether the speaker (author) uses the expression as given (for the recipient), i.e. uniquely determined by the context.

The contextual boundness of individual expressions is contained in the attribute tf a (topic-focus articulation). Every node (relevant for the topic-focus articulation of the sentence) is assigned one of three possible values of the attribute tfa . Values of the attribute tfa are described in Table 10.1, "Values of the attribute tfa ".

Table 10.1. Values of the attribute $t f a$

| C | the node represents a contrastive contextually bound expression |
| :--- | :--- |
| f | the node represents a contextually non-bound expression |
| t | the node represents a non-contrastive contextually bound expression |

A clue for the assignment of values of contextual boundness is the relation of an expression (represented by a node) to the context (see Section 10.2.1, "Context"), its function in the topic-focus articulation of the sentence and the means of expressing the function in Czech sentences, e.g. the meaning of the
expression, word order, and in particular sentential intonation (see Section 10.1, "Signalling TFA"). The actual decision about the contextual boundness of an expression is left to the language awareness of the annotator.

The attribute tfa is not filled at:

- technical root node of the tectogrammatical tree ( nodetype = root ).
- paratactic structure root nodes ( nodetype = coap ; see also Section 10.4.3.2, "Topic-focus articulation of paratactic structures").
- nodes with the functor CM .

Nodes with the functor CM constitute a specific constituent of paratactic connectives (see Section 8.16.1, "Co-ordinating connectives"). Similarly to paratactic structure root nodes, they are irrelevant for the topic-focus articulation.

- nodes with the functor FPHR.

The functor FPHR (nodetype=fphr) marks nodes constituting foreign-language expressions. Foreign-language expressions are represented as a list structure, with a newly established root node with the t -lemma substitute \#Forn (see Section 8.9, "Foreign-language expressions"). The tfa value is assigned to the foreign-language expression as a whole, it is filled for the root node of the list structure.

### 10.2.1. Context

Context is in the annotation of contextual boundness understood in a very broad sense.
Context comprises not only immediate textual context ("co-text "), but also wider contextual layers, including all shared or commonly known information, whose sharing may be conditioned by the situation, perception, culture, other texts, or other factors.

By context we mean:

- textual context (information deducible from the preceding text),
- thought context (all shared or commonly known information),
- situational context (information deducible from the situation),
- sensory context (information deducible from the sensory perception),
- cultural context (information shared through the culture),
- intertextuality (information deducible from other related texts).

Textual context is understood dynamically, as a semantic field evolving with the course of the text. Not only does every sentence modify the whole preceding context, but the relevance of individual components of the context changes with their distance from the current sentence.

The incorporation of an expression into the context conceived in this way can take several forms from repetition or coreference, through entailment from a larger text segment or situation, to complex meaning relationships such as e.g. a metaphor.

### 10.2.2. Expressions from the point of view of contextual boundness

According to their contextual boundness or non-boundness (see Section 10.2.1, "Context") we distinguish three types of expressions:

- non-contrastive contextually bound expression (see Section 10.2.2.1, "Non-contrastive contextually bound expression (value $t$ in the attribute $t f a$ )"),
- contrastive contextually bound expression (see Section 10.2.2.2, "Contrastive contextually bound expression (value $c$ in attribute $t f a$ )"),
- contextually non-bound expression (see Section 10.2.2.3, "Contextually non-bound expression (value $f$ in attribute $t f a$ )").


### 10.2.2.1. Non-contrastive contextually bound expression (value $t$ in the attribute tfa)

Non-contrastive contextually bound expressions are expressions (both expressed and absent in the surface structure of the sentence) that introduce in the text some "given information". Such expressions are repeated from the preceding text (not necessarily verbatim), they are deducible from it (e.g. using coreferential or inferential relationships), or somehow related to a broader context.

A tendency towards contextual boundness is exhibited by expressions modifying the sentence as a whole (e.g. connecting and attitudinal particles) and local, temporal and circumstantial adjuncts, if they fulfill the role of so-called settings (setting the scene). Contextually bound are usually also nodes representing elements absent in the surface structure (for that see Section 10.2.2.4, "Contextual boundness of expressions absent in the surface structure of the sentence").

A key relationship for determining (the value of) the contextual boundness of an expression is coreference. When annotating topic-focus articulation, we take into account a wider domain of coreferential relationships than the ones annotated in the tectogrammatical trees (for the annotation of coreferential relationships see Chapter 9, Coreference).

Nodes representing non-contrastive contextually bound expressions are assigned the value $t$ in the $t f a$ attribute.
(A node with value $t$ in the attribute $t f a$ is also called a non-contrastive contextually bound node. )

### 10.2.2.2. Contrastive contextually bound expression (value c in attribute tfa)

Contrastive contextually bound expressions are contrastively bound expressions, which can be usually identified according to the following properties:

- a contrastive contextually bound expression is usually a choice from a set of alternatives. This set need not be explicitly specified in the text. A contrastive contextually bound expression can refer to a larger text segment and does not have to be deducible from the immediately preceding textual context.

NB! Choice from a set of alternatives (contrast) is also typical of contextually non-bound expressions. Cf. examples:

- (Dnes tu knihu ještě čtu.) Přinesu ti ji zitra [tfa=f] (=lit. (Today the book.ACC still (I) am_reading.) (I) will_bring to_you it tomorrow.)
- (Dnes nesu jen dopis.) Tu knihu [tfa=c] ti přinesu zitra [tfa=f] (=lit. (Today (I) am_bringing just (a) letter.) The book (I) to_you will_bring tomorrow)
- the occurrence of a contrastive contextually bound expression is primarily determined by the thematic structure (progression) of the text. Contrastive contextually bound expressions usually occur in enumerations, at the beginning of paragraphs etc.
- in the spoken form of an utterance the contrastive contextually bound expression carries an optional contrastive stress (see Section 10.1.2.2, "Contrastive stress").

Nodes representing contrastive contextually bound expressions are assigned the value c in the tfa attribute.
(A node with the value $c$ in the attribute $t f a$ is also called a contrastive contextually bound node.)
Examples:
Jedině [ tfa f f$]$ s úspěšnými $[\mathrm{tfa} \mathrm{f} \mathrm{f}]$ vzory $[\mathrm{tfa} \mathrm{f}]$ se můžeme poměřovat $[\mathrm{tfa}=\mathrm{f}]$ (=lit. Only with successful models _(we) can compare.) Fig. 10.1

Jemu $[\mathrm{tfa}=\mathrm{c}$ ] to $[\mathrm{tfa}=\mathrm{t}]$ Martin $[\mathrm{tfa}=\mathrm{t}]$ nedal [ tfa f$]$ (=lit. To_him it.ACC Martin did_not_give.)

Janu $[\mathrm{tfa}=\mathrm{c}]$ Marie $[\mathrm{tfa}=\mathrm{t}]$ neviděla $[\mathrm{tfa}=\mathrm{f}]$ (=lit. Jane.ACC Mary did_not_see.)
!!! The guidelines for assigning the value c are somewhat vague, the main reason being that it has not yet been well established where contrast can occur and what factors influence its presence.

Figure 10.1. Contrastive contextually bound expression


Jedině s úspě̌nými vzory se můžeme poměřovat. (=lit. Only with successful models _(we) can compare.)

### 10.2.2.3. Contextually non-bound expression (value $f$ in attribute tfa)

Contextually non-bound expressions are expressions (both expressed and absent in the surface structure of the sentence) that represent in the text some unknown, new facts, or introduce known facts in new relations, i.e. they express information not deducible from context.

Contextually non-bound expressions can carry the intonation centre of the sentence (see Section 10.1.2.1, "Intonation centre").

Nodes representing contextually non-bound expressions are assigned the value $f$ in the $t f a$ attribute.
(A node with the value $f$ in the attribute $t f a$ is also called a contextually non-bound node. )
NB! Even expressions repeated verbatim from the preceding text can be contextually non-bound if they differ in modality, some grammatical category, etc. Such an expression brings new information, and is therefore considered to be contextually non-bound.

Example:
Ještě jsem to nenapsal $[\mathrm{tfa} \mathrm{f}]\}$, ale zitra to napišu $[\mathrm{tfa}=\mathrm{f}]$ (=lit. Yet (I) have it.ACC not_written, but tomorrow (I) it.ACC will_write.)

### 10.2.2.4. Contextual boundness of expressions absent in the surface structure of the sentence

Attribute $t f a$ is also filled for newly established nodes representing elements absent in the surface structure of the sentence (is_generated=1; for rules on establishing new nodes in the tectogrammatical tree see Section 6.12, "Ellipsis").

Absent in the surface structure of the sentence are mainly expressions that have been already mentioned in the text, or are signaled by the grammatical categories of other words (e.g. non-expressed subject), or constructions where some part of the underlying structure is not expressed at the surface level (e.g. general arguments).

Certain lexical units are absent in the surface structure of the sentence precisely because they are considered to be deducible from context. Newly established nodes (representing elements not expressed in the surface structure of the sentence) are therefore in most cases assigned the value $t$ in the $t$ fa attribute.

Exceptions: Newly established nodes can be assigned tfa values $f$ or $c$ in the case of ellipsis of the governing noun in cases of paratactic connection of sentence parts (see Section 6.12.1.2.1, "Textual ellipsis of the governing noun") and in the case of ellipsis of the governing noun in binary relations of the type "from-to". The first occurrence of a noun, absent in the surface structure of the sentence, can be contextually non-bound or contrastive contextually bound (depending on context), while its second occurrence, expressed in the surface structure, is contextually bound.

Examples:
Pil červené $\{\underline{\text { vino }}[\mathrm{tfa}=\mathrm{f}]\}$ a bilé vino $[\mathrm{tfa}=\mathrm{t}]$ (=lit. (He) drank red wine and white wine.) Fig. 10.2

Přemaloval to $\underline{z}$ černé $\{\underline{\text { barvy }}[\mathrm{tfa}=\mathrm{f}]\}$ na červenou barvu $[\mathrm{tfa}=\mathrm{t}]$ (=lit. (He) re-painted it from black colour to red colour.) Fig. 10.3

Možné jsou studené $[\mathrm{tfa}=\mathrm{f}]\{$ večeře $[\mathrm{tfa}=\mathrm{f}]\}$ i teplé $[\mathrm{tfa}=\mathrm{f}]$ večě̌e $[\mathrm{tfa}=\mathrm{t}]$ (=lit. Possible are cold dinners and hot dinners.)

A newly established node can be assigned the $t f a$ value $f$ or c also in the cases of noun ellipsis after a preposition.

Example:
Neexistuje argument $<$ pro>. $\{$ \#PersPron.PAT $[\mathrm{tfa}=\mathrm{f}]\}$ (=lit. There_is_no argument $<$ for $>$.)
A newly established node can be assigned the value $f$ (or c) also in the case of a copied node differing from the original node in the value of some grammateme. Cf.:

- Nechtěli nebo nemohli odklad platby povolit. (=lit. (They) did_not_want or could_not postponement.ACC of payment to permit.)
$=$ Odklad platby $\{\underline{\text { nechtěli povolit }}[\mathrm{deontmod}=\mathrm{vol} ; \mathrm{tfa}=\mathrm{f}]\}$ nebo nemohli povolit $[\mathrm{deont}-$ mod=poss; tfa=f]

In the tectogrammatical tree there will be established (copied) a new node representing the modal predicate nechtěli povolit (=lit. (they) did_not_want to_permit), which differs from the original node in the value of grammateme deontmod, thus carries new information and can be assigned the value $f$.

A newly established node can be assigned the $t f a$ value $f\left(\begin{array}{ll}\text { or } & \text { ) also if it is the node for syntactic }\end{array}\right.$ negation represented as rhematizer ( $t$ _lemma=\#Neg and functor=RHEM) or if it is the root node of a foreign-language expression list structure ( $t$ _lemma=\#Forn).

Figure 10.2. Contextually non-bound expression absent in the surface structure of the sentence


Pil červené a bilé vino. (=lit. (He) drank red and white wine.)

Figure 10.3. Contextually non-bound expression absent in the surface structure of the sentence


Přemaloval to z černé na červenou barvu. (=lit. (He) re-painted it from black to red colour.)

### 10.3. Communicative dynamism

Communicative dynamism is a property of an expression that reflects its relative degree of importance in comparison with other expressions in the sentence attributed to it by the speaker; we consider contextually non-bound expressions to be more dynamic than expressions contextually bound (be they non-contrastive or contrastive).

In tectogrammatical trees, communicative dynamism is represented by the so called underlying word order (see also Section 6.3, "Deep structure word order"). Information about the underlying order of nodes is stored in the attribute deepord. See Table 10.2, "Values of the attribute deepord".

Table 10.2. Values of the attribute deepord
non-negative integer the order of a node in the graphical representation of the tectogrammatical tree (nodes are numbered from left to right)

The degree of communicative dynamism is always determined with respect to the governing node and to sister nodes, i.e. for each level of the tectogrammatical tree. Nodes on the individual levels of the tree are ordered according to increasing communicative dynamism.

Also the relative order between contextually bound and contextually non-bound (sister) nodes is set. We suppose that certain syntactic functions tend to certain positions on the scale of communicative dynamism (so-called systemic ordering - in Czech we presuppose the order: ACT - most adjuncts ADDR - PAT - ORIG-EFF). However, the scale of communicative dynamism of a sentence is determined only through its integration into the context - the scale of communicative dynamism modifies in comparison with systemic ordering. Systemic ordering (we surmise) is preserved in the contextually non-bound part of the sentence.

The order is naturally different in verbal groups (verb phrases; Section 10.3.2, "Ordering of nodes in verbal groups (verb phrases)") and nominal groups (noun phrases; see Section 10.3.3, "Ordering of nodes in nominal groups (noun phrases)"). The same guidelines as for nodes in verbal groups hold also for nodes in adjectival groups (adjective phrases; see Section 10.3.2, "Ordering of nodes in verbal groups (verb phrases)").

### 10.3.1. Basic guidelines for the ordering of nodes in a tectogrammatical tree

There are three basic guidelines for the ordering of nodes in a tectogrammatical tree:

- the most general guideline of the underlying word order is the placing of nodes representing contextually bound expressions (nodes with the values $t$ or $c$ in the attribute $t f a$ ) to the left from their governing node and the placing of nodes representing contextually non-bound expressions (nodes with the value $f$ in the attribute $t f a$ ) to the right from their governing node.

Exceptions. There are a few exceptions to this rule:

- a node representing a quasi-focus (see Section 10.3.1.2, "Quasi-focus"), although it is contextually bound, depends to the right from its governing node.
- a node representing a rhematizer whose scope contains its governing verb which is contextually non-bound has the $t f a$ value $f$, but is placed to the left from the node representing the verb (see also Section 10.6.2, "Basic guidelines regarding the position of rhematizers in tectogrammatical trees").
- the effective root of a syntactically non-incorporated parenthesis (a node with the functor PAR) has usually the $t f a$ value $f$, but it stays in the tectogrammatical tree at the same place as in the surface word order, i.e. even though it is to the left from its governing node (see also Section 10.4.2, "Topic-focus articulation and the semantic type of dependency relation (functor)").
- nodes representing predicates of certain types of subordinate clauses (mostly causal) can have the $t f a$ value $f$ and at the same time be to the left from the governing predicate node (see also Section 10.4.3.3, "Topic-focus articulation of dependent verbal clauses").
- in the case of ellipsis of the governing noun in paratactic connections of sentence parts (of the type "červené a bílé víno (=red and white wine)"; see Section 6.12.1.2.1, "Textual ellipsis of the governing noun"), the second (expressed) noun has the $t$ fa value $t$, but it still depends to the right from the paratactic structure root even though the $t$ fa value of the first member of the paratactic structure is $f$ (see Section 10.2.2.4, "Contextual boundness of expressions absent in the surface structure of the sentence").
- in the underlying word order, the focus proper (see Section 10.3.1.1, "Focus proper") is placed on the rightmost path leading from the effective root of the tectogrammatical tree, even though it is at a different position at the surface structure. If the focus proper is constituted by an expression represented as the effective root of the tectogrammatical tree (i.e. the governing predicate is the focus proper), there is no right path from the effective root. For more information see Section 10.3.1.1, "Focus proper".
- the tectogrammatical tree is projective (see Section 10.3.4, "Projectivity of tectogrammatical trees").

Compare:

- Černý $[\mathrm{tfa}=\mathrm{f}]$ kocour $[\mathrm{tfa}=\mathrm{t}]$ se napil $[\mathrm{tfa}=\mathrm{f}]$ ze své $[\mathrm{tfa}=\mathrm{t}]$ misky $[\mathrm{tfa} \mathrm{f}]$ (=lit. (The) black tomcat_drank from its bowl.)

Depending on their contextual boundness (the $t$ fa value), nodes are placed either to the left or right from their governing node, not necessarily from the effective clause root (governing verb). Cf. Fig. 10.4.

- Prezident [tfa=f] Klaus [tfa=t] odjel $[\mathrm{tfa}=\mathrm{f}]$ včera [tfa=t] na zahraniční [tfa=f] návštěvu $[\mathrm{tf} \mathrm{a}=\mathrm{f}]$ (=lit. President Klaus left yesterday for (an) international visit.)

Verb in the second position in the sentence (see Section 10.1.1, "Surface word order"). Cf. Fig. 10.5.

- Taky $[\mathrm{tfa}=\mathrm{f}]$ KAREL $[\mathrm{tfa} \mathrm{f}]$ se doma $[\mathrm{tfa}=\mathrm{t}]$ ukázal $[\mathrm{tfa} \mathrm{f}]$ (=lit. Also Charles_at_home showed_up.)

Subjective order (see Section 10.1.1, "Surface word order"). In the tectogrammatical tree, all nodes are at their unmarked positions according to the basic guidelines for the ordering of nodes in a tectogrammatical tree: nodes are placed either to the left, or to the right from their governing node (according to their tfa value). Cf. Fig. 10.6.

Figure 10.4. Ordering of nodes in a tectogrammatical tree


Černý kocour se napil ze své misky. (=lit. (The) black tomcat_drank from its bowl.)

Figure 10.5. Verb in the second position in the sentence


Prezident Klaus odjel včera na zahranični návštěvu. (=lit. President Klaus left yesterday for (an) international visit.)

## Figure 10.6. Subjective order



Taky Karel se doma ukázal. (=lit. Also Charles _at_home showed_up.)

### 10.3.1.1. Focus proper

Focus proper is the most dynamic and communicatively significant contextually non-bound part of the sentence.

In the spoken form of a sentence, focus proper carries the intonation centre (see Section 10.1.2.1, "Intonation centre").

If a nominal group (noun phrase) is the focus proper, the intonation centre is usually placed at the last word of the nominal group, even though it is not its most dynamic member. This is caused by the highly grammaticalized word order in nominal groups (see also Section 10.3.3, "Ordering of nodes in nominal groups (noun phrases)").

Focus proper (see Section 10.3.1.1, "Focus proper") is placed on the rightmost path leading from the effective root of the tectogrammatical tree, even though it is at a different position at the surface structure. If the focus proper is constituted by an expression represented as the effective root of the tectogrammatical tree (i.e. the governing predicate is the focus proper), there is no right path leading from the effective root.

NB! On the rightmost path from the effective root of the tectogrammatical tree, there can be even contextually bound nodes (so-called quasi-focus - see Section 10.3.1.2, "Quasi-focus").

## Compare:

- (Mám rád červené tulipány, ale) v Holandsku jsem viděl i tulipány [tfa=t] modré [ $\mathrm{t} \mathrm{f} \mathrm{a}=\mathrm{f}$ ] (=lit. ((I) _like red tulips, but) in Holland (I) have seen even tulips blue.)

The focus proper consists of the contextually non-bound expression modré (=blue). The node representing this expression will be placed rightmost in the tectogrammatical tree (it will be a leaf on the rightmost path in the tectogrammatical tree), in spite of the fact that the governing node of the focus proper is the contextually bound expression (quasi-focus) tulipány (=tulips) . Cf. Fig. 10.7.

Figure 10.7. Focus proper

(Mám rád červené tulipány.) Ale v Holandsku jsem viděl i tulipány modré. (=lit. ((I)_like red tulips.) But in Holland (I) have seen even tulips blue.)

### 10.3.1.2. Quasi-focus

Quasi-focus is constituted by (both contrastive and non-contrastive) contextually bound expressions, on which the focus proper is dependent (see Section 10.3.1.1, "Focus proper"). The focus proper can immediately depend on the quasi-focus, or it can be a more deeply embedded expression.

In the underlying word order, nodes representing the quasi-focus, although they are contextually bound, are placed to the right from their governing node. Nodes representing the quasi-focus are therefore contextually bound nodes on the rightmost path in the tectogrammatical tree.

Compare:

- (Kterého učitele jsi potkal?) Potkal jsem učitele $[\mathrm{t} \mathrm{f} \mathrm{a}=\mathrm{t}]$ chemie $[\mathrm{t} \mathrm{f} \mathrm{a}=\mathrm{f}]$ (=lit. (Which teacher did (you) meet?) (I) met_(the) teacher of_chemistry.)

The contextually bound expression učitel (=teacher) is the quasi-focus (the focus proper, the expression chemie (=of_chemistry), is dependent on it). In the tectogrammatical tree, the node representing the quasi-focus will be placed to the right from the governing node representing the predicate potkat (=to_meet) . Cf. Fig. 10.8.

- Novináři měli př̌lležitost ocenit tento jinak skvělý [ tfa f ] vioz [ tfa f$]$ (=lit. Journalists had (the) opportunity to_appreciate this otherwise superb car.)

The contextually bound expression viz (=car) is the quasi-focus (the focus proper, the expression skvélý (=superb), is dependent on it). In the tectogrammatical tree, the node representing the quasifocus will be placed to the right from the governing node representing the predicate ocenit (=to_appreciate) . Cf. Fig. 10.9.

## Figure 10.8. Quasi-focus


(Kterého učitele jsi potkal?) Potkal jsem učitele chemie. (=lit. (Which teacher did (you) meet?) (I) met _ (the) teacher of_chemistry.)

Figure 10.9. Quasi-focus


Novináři měli přiležitost ocenit tento jinak skvělý vůz. (=lit. Journalists had (the) opportunity to_appreciate this otherwise superb car.)

### 10.3.2. Ordering of nodes in verbal groups (verb phrases)

In this section we describe guidelines for the ordering of sister nodes representing contextually bound and non-bound expressions whose governing node is a node representing a verb (both finite and nonfinite). They apply mainly do nodes dependent on the effective roots of both subordinate and main verbal clauses (see Section 6.4, "Verbal and non-verbal clauses").

### 10.3.2.1. Ordering of contextually non-bound nodes in verbal groups

Nodes representing contextually non-bound expressions (nodes with the value $f$ in the attribute $t f a$ ) are ordered according to the surface word order, so that potential deviations from the systemic ordering can be easily detected and their causes studied.

Exception: The only exception is the focus proper node. If the focus proper is immediately dependent on the verb, its node is always placed rightmost in the underlying order, even though it is at a different position in the surface structure (see also Section 10.3.1.1, "Focus proper").

### 10.3.2.2. Ordering of contextually bound nodes in verbal groups

The communicative dynamism of (both contrastive and non-contrastive) contextually bound expressions is modified according to the context, it need not correspond to the systemic ordering. The degree of communicative dynamism of the expressions is usually determined by their function in the topic-focus articulation. The function is signaled through diverse means - word order, syntactic function, intonation and others. According to them we distinguish types of contextually bound nodes (i.e. nodes with the value $t$ or $c$ in the attribute $t f a$ ). Below we propose their assumed order according to increasing communicative dynamism.

In the tectogrammatical trees, contextually bound nodes are ordered from left to right as follows:

1. nodes representing the vocative, i.e. nodes with functor VOCAT (if present in the construction),
2. nodes with the functor PREC,
3. nodes with the functor ATT,
4. nodes representing rhematizers (functor=RHEM), if there is a contrastive contextually bound node in their scope,
5. contrastive contextually bound node,
6. other expressed (non-contrastive) contextually bound nodes, with the exception of nodes of types $8-9$ below,
7. newly established nodes (representing expressions absent in the surface structure of the sentence),
8. expressed nodes with the t-lemma substitute \#PersPron,
9. expressed locative and temporal modifications which are non-contrastive.

If there are several nodes within one type (1-9), we order them according to the surface word order.

## Compare:

- Jirka ho totiž bohužel včera v Praze \{\#Gen.ADDR\} prodal. (=lit. George it.ACC in fact unfortunately yesterday in Prague sold.)

The contextually bound expressions are represented by sister nodes in the following order:

1. the node with the functor PREC representing the expression totiz ( $=$ in fact),
2. the node with the functor ATT representing the expression bohužel (=unfortunately),
3. the contrastive contextually bound node representing the expression Jirka (=George),
4. the newly established node representing the non-expressed Addresse,
5. the expressed node with the t-lemma substitute \#PersPron representing the pronoun ho (=it.ACC),
6. the node representing the temporal modification včera (=yesterday),
7. the node representing the locative modification vPraze (=in Prague).

Compare Fig. 10.10.

Figure 10.10. Ordering of contextually bound nodes in verbal groups


Jirka ho totiž bohužel včera v Praze prodal. (=lit. George it.ACC in fact unfortunately yesterday in Prague sold.)

### 10.3.3. Ordering of nodes in nominal groups (noun phrases)

In this section we describe guidelines for the ordering of sister nodes representing contextually bound and non-bound expressions whose governing node is a node representing a noun.

The surface word order of nominal groups is governed by word-order rules of Czech (e.g. agreeing attributes stand in the surface order before the noun, non-agreeing attributes after it), which are not related to the communicative dynamism - the word order in nominal groups is to a large extent grammaticalized. In the underlying word order, however, we reorder the modifications of a noun according to their increasing communicative dynamism.

The communicative dynamism of noun modifications relates closely to the tightness of the semantic relationship of the modifications to the noun. The tightness of the relationship of modifications to their governing noun is often signaled by morphology: as the tightest is perceived the nominative of identity, followed by modifications in the genitive, quite loose are agreeing adjectival modifications, and looser still are prepositional groups (phrases). In the case of dependent relative clauses, restrictive and nonrestrictive clauses are perceived differently - non-restrictive relative clauses are the loosest noun modifications.

We suppose that for contextually non-bound modifications the following holds: the looser the modification is, the more communicatively dynamic it is; hence we order modifications from left to right according to the decreasing tightness. For the ordering of contextually non-bound noun modifications the following holds:

- nodes representing contextually non-bound noun modifications (nodes with the value $f$ in the attribute $t f a$ ) are ordered to the right from their governing node in the order from nodes representing tightly connected expressions to nodes representing loosely connected expressions; i.e. prototypically from left to right in the order:

1. nodes representing dependent parts of phrasemes (idioms) (functor= DPHR or CPHR).
2. nodes representing the nominative of identity (functor=ID).
3. valency modifications (arguments of deverbal nouns) and modifications in the genitive (nodes with the functors APP and MAT).
4. agreeing adjectival modifications (adjectives, possessives, numerals).

NB! In the case of deverbal nouns, adjectival modifications can also have the functors MANN, REG, EXT, etc.
5. effective roots of restrictive relative clauses (functor=RSTR).
6. non-valency (i.e. free) modifications (mostly locative and temporal).
7. effective roots of non-restrictive relative clauses (functor=RSTR).

The ordering of contextually bound modifications of nouns is governed by the surface word order:

- nodes representing contextually bound modifications of nouns (nodes with the value $t$ or $c$ in the attribute $t f a$ ) stand to the left from their governing nodes in the order from nodes representing loosely connected expressions to nodes representing the most tightly connected expressions. Their order is therefore parallel to that of contextually non-bound nodes, but reversed in the order of types 7-1.

If there are several nodes within one type (1-7), we order them according to the surface word order, which is free within the individual types of modifications, and thus semantically relevant. If the position of nodes in the underlying word order is unchanged with respect to the surface word order, we leave unchanged also the relative order of nodes within individual types of nodes. If in the underlying word order we reorder nodes from before the noun to after it or vice versa, the underlying word order is the mirror image of the surface word order.

Compare:

- Vzala jsem i ty dvoje krátké zelené šaty po sestře, které mi jsou malé. (=lit. (I) taken have also those two short green dresses after (my) sister that for_me are small.)

The contextually bound modification of the noun šaty ( $=$ dresses) is the demonstrative ten ( $=$ those). The node representing this pronoun is placed to the left from its governing node.

The remaining modifications of the noun šaty (=dresses) are contextually non-bound. The nodes representing these modifications are placed (as sister nodes) to the right from their governing node in the following order from left to right:

1. the node representing the agreeing adjectival modification zelené (=green),
2. the node representing the agreeing adjectival modification krátké (=short),
3. the node representing the agreeing adjectival modification dvoje ( $=t w o$ ),
4. the node representing the effective root of the restrictive relative clause,
5. the node representing the non-valency modification po sestře (=after sister).

### 10.3.4. Projectivity of tectogrammatical trees

We suppose that the resulting order of nodes in tectogrammatical trees is projective. Projectivity is defined as follows: if two nodes $M$ and $N$ are connected by an edge and $M$ is to the left from $N$, then all nodes to the right from M and to the left from N are connected with the root via a path that passes through at least one of the nodes M and N . In short: between a mother and its direct daughter there can be only direct or indirect daughters of the mother.

In the surface structure of the sentence, due to various causes there occur word order transformations that lead to surface-structure non-projectivity. We suppose that non-projectivity in the surface structure of sentences is caused by word-order movements and that such non-projective surface realizations correspond to projective tectogrammatical structures. During the tectogrammatical annotation, we therefore projectivize such constructions.

By projectivization we mean modifying the underlying order of a node (causing the non-projectivity) so that no node of the resulting tectogrammatical tree violates the definition of projectivity.

When carrying out the projectivization we take into account the motivation of the particular word-order movement. Presently we distinguish three types of motivations:

- non-projectivities motivated by word-order rules (see Section 10.3.4.1, "Non-projectivities motivated by word-order rules"),
- non-projectivities motivated by prosodic reasons (see Section 10.3.4.2, "Non-projectivities motivated by prosodic reasons"),
- non-projectivities motivated by the topic-focus articulation (see Section 10.3.4.3, "Non-projectivities motivated by the topic-focus articulation").


### 10.3.4.1. Non-projectivities motivated by word-order rules

A non-projectivity can be motivated by the fixed position of an expression in the surface word order. This applies mainly to nominal groups, which can be non-projective due to the position of a more deeply embedded modification (further modified adjectival modifications before the governing noun), to dependent clauses introduced by adjectival relative words that are moved away from their governing nouns, and to other phrasemes (idioms) that have frozen non-projective word-order forms.

In constructions of this type, we carry out the projectivization depending on which expression is causing the non-projectivity:

- if a relative adjectival expression modifying a noun in a subordinate clause, the node representing this expression, depending on its contextual boundness, i.e. its $t f$ a value, is moved into a projective position either to the left $(t f a=t)$ or to the right $(t f a=f)$ from its governing node.

Compare:
 dog.ACC.)

The relative adjectival expression jakého (=what) (the bearer of the intonation centre) is moved away from its governing noun psa (=dog. $A C C$ ), and so causes a non-projectivity. In the tectogrammatical tree, the node representing this expression is moved to a projective position to the right from the governing node (see also the annotation of indirect questions - Section 10.4.4.3, "Topic-focus articulation of indirect questions").

- Řekl mi, jakou [tfa=t] si přeje KNIHU. (=lit. (He) told me what he wants book.ACC.)

The relative adjectival expression jakou (=what) is moved away from its governing noun knihu (=book.ACC) (the bearer of the intonation centre) and causes a non-projectivity. In the tectogrammatical tree, the node representing this expression is moved to a projective position to the left from the governing node.

- if a further modified adjectival expression is moved non-projectively to the left, we proceed according to whether the expression constitutes a quasi-focus (see Section 10.3.1.2, "Quasi-focus"). In case the adjectival expressions fulfills the function of a quasi-focus (a modification of the contextually bound adjective is contextually non-bound), in the tectogrammatical tree we place the node representing the adjectival expression to the right from its governing node (representing a noun) and to the left from its dependent node. In case the adjectival expressions does not fulfill the
function of a quasi-focus (the modification of the adjective is contextually bound), we move the node representing the dependent modification of the adjective to a projective position, according to its value of contextual boundness ( tfa value) either to the left ( $t f a=t$ ) or to the right ( $\mathrm{tfa}=\mathrm{f}$ ) from its governing node .

Compare:

The modified adjective plné (=full) is moved away from its dependent modification peněz (=of_money) and causes a non-projectivity. Since it fulfills the function of quasi-focus, in the tectogrammatical tree we place the node representing this adjective to the right from its governing node (representing the noun kapsy (=pockets) ) and to the left from its dependent node (representing the modification peněz (=of_money) ).

- (Měl plné ruce peněz.) Ne, měl plné [ $\mathrm{t} \mathrm{f} \mathrm{a}=\mathrm{t}$ ] KAPSY peněz [ $\mathrm{t} \mathrm{f} \mathrm{a}=\mathrm{t}]$ (=lit. ((He) had full hands of_money.) No, (he) had full pockets of_money.)

The modified adjective plné (=full) is moved away from its dependent modification peněz (=of_money) and causes a non-projectivity. Because it does not fulfill the function of a quasifocus, in the tectogrammatical tree we place the node representing this adjective to the left from its governing node (representing the noun kapsy (=pockets) ) and we move the node representing the dependent modification of this adjective (the noun peněz ( $=o f$ _money) ) to the projective position to the left from its governing node.

This type of deviation of the surface word order from projectivity is common in constructions of comparison (see Section 8.4, "Constructions with the meaning of "comparison""); e.g.:

Pařiž je větší město než Praha. (=lit. Paris is (a) bigger city than Prague.)
Kolín je stejně velké město jako Chrudim. (=lit. Kolin is equally big town as Chrudim.)

### 10.3.4.2. Non-projectivities motivated by prosodic reasons

In Czech, there is a set of unstressed expressions (so-called clitics) that always take "the second position" in the sentence (i.e. the position after the first prosodic unit). In case these expressions are not direct dependents of the governing verb of the clause, they can cause non-projectivity.

Clitic words are usually contextually bound, they are therefore assigned the $t$ fa value $t$ and are placed at projective positions according to the guidelines for the ordering of contextually bound nodes (see Section 10.3.2.2, "Ordering of contextually bound nodes in verbal groups").

Compare:

- Konečně $[\mathrm{tfa}=\mathrm{f}]$ se to $[\mathrm{tfa}=\mathrm{t}]$ podařilo $[\mathrm{tfa}=\mathrm{f}]$ uskutečnit $[\mathrm{tfa}=\mathrm{f}]$ (=lit. Finally_it succeeded accomplishing.)

In the surface word order, the clitic to (=it) (the Patient of the verb uskutečnit (=accomplishing) ) is moved away to the left due to prosodic reasons. In the tectogrammatical tree, we place the contextually bound node representing this clitic projectively to the left from the node representing the verb uskutečnit (=accomplishing) .

### 10.3.4.3. Non-projectivities motivated by the topic-focus articulation

In Czech, contrastive contextually bound expressions (see Section 10.2.2.2, "Contrastive contextually bound expression (value c in attribute tfa )") have a strong tendency towards standing at the initial position in the sentence, that means that they move to the left although they are more deeply embedded, and so can cause non-projectivities.

In the tectogrammatical tree, a node representing an expression that is placed non-projectively in the surface word-order due to its contrastive usage ( $\mathrm{tfa}=c$ ) is placed according to the guidelines in Section 10.3.2.2, "Ordering of contextually bound nodes in verbal groups" and Section 10.3.3, "Ordering of nodes in nominal groups (noun phrases)" projectively leftmost possible.

Compare:

- K jásotu [tfa=c] není [tfa=f] nejmenší [tfa=f] důvod [tfa=f] (=lit. For cheering there_is_not the_slightest reason.)

The modification $k$ jásotu (=for cheering) (the Patient of the noun důvod (=reason)) is moved left to the initial position in the surface word order due to its contrastive usage. In the tectogrammatical tree, we place the contrastive contextually bound node representing this modification projectively to the left from the node representing the noun dívod (=reason). Cf. Fig. 10.11.

Figure 10.11. Projectivization


K jásotu není nejmenší důvod. (=lit. For cheering there_is_not the_slightest reason.)

### 10.3.4.4. Non-projectivities with unclear motivation (constructions with multi-word predicates)

In addition to cases in which the motivation for the non-projectivity is clear, there are also cases where the motivation of the word-order movement is not obvious, and furthermore in some of these cases the non-projective surface word-order form of the sentence is the unmarked form.

This applies mainly to dependent modifications of multi-word predicates: a contextually bound expression standing to the left from a multi-word expression and dependent on the dependent part of this expression causes a non-projectivity (even though it is not contrastive; see Section 10.3.4.3, "Nonprojectivities motivated by the topic-focus articulation").

In the tectogrammatical tree, multi-word predicates are usually represented by two nodes (see Section 6.9, "Multi-word predicates"). The node causing the non-projectivity depends on the node representing the dependent part of the multi-word predicate. Presently we know about the following types of non-projective non-contrastive contextually bound nodes:

- the node causing the non-projectivity depends on the node representing the nominal part of a complex predicate (on a node with functor CPHR; for complex predicates see Section 6.9.3, "Complex predicates"),
- the node causing the non-projectivity depends on the node representing the infinitive of the substantive verb in a modal or phase predicate represented by two nodes (see Section 6.9.1, "Modal and phase predicates"),
- the node causing the non-projectivity depends on the node representing the non-verbal part of a quasi-modal or quasi-phase predicate (see Section 6.9.2, "Quasi-modal and quasi-phase predicates"),
- the node causing the non-projectivity depends on the node representing the non-verbal part of a verbonominal predicate (see Section 8.2.1.3, "Copula "být" (verbonominal predicate)"),
- the node causing the non-projectivity depends on the node representing the dependent part of a phraseme (idiom) (see Section 6.8.2, "Verbal idioms").

In the above-mentioned cases we encounter the following problem. If we projectivize the contextually bound node, on the tectogrammatical level we cannot distinguish a surface word-order projective sentence from a surface word-order non-projective sentence with the same words. Therefore, if we stipulated a single tectogrammatical representation for both these realizations, we would stipulate a single meaning for them - which we dare not claim. Because of this we decided that in order to preserve the information about the original position of the expressions, the node representing the non-projective non-contrastive contextually bound expression will stay at a position corresponding to its surface wordorder position, it is not moved to the right and the resulting tectogrammatical tree therefore contains a non-projective edge, which allows us to distinguish both variants and to study them further.

## Compare:

- (V galerii V. Špály ode dneška vystavuje A. Born.) Výstavu [ t fa=t] lze navštívit do dvacátého srpna. (=lit. (In (the) gallery of_V. of_Špála from today exhibits A. Born.) (The) exhibition can be_visited until the_twentieth of_August.)

The contextually bound modification výstavu (=exhibition) (the Patient of the verb navštivit (=to_visit) ) is moved to the left in the surface word order. In the tectogrammatical tree, the node representing this non-projective non-contrastive contextually bound expression is in a position corresponding to the surface word order, it is not moved to the right. Cf. Fig. 10.12.

Figure 10.12. A non-projective tectogrammatical tree

(V galerii V. Špály ode dneška vystavuje A. Born.) Výstavu lze navštívit do dvacátého srpna. (=lit. (In (the) gallery of_V. of_Špála from today exhibits A. Born.) (The) exhibition can be_visited until the_twentieth of_August.)
!!! This is a provisional solution, which will be replaced by projective structures as soon as we elaborate on different degrees of multi-word predicates.
!!! All tectogrammatical trees in PDT 2.0 that remain non-projective are non-projective because of the above-mentioned reasons. However, there are tectogrammatical trees that have been projectivized that should have been annotated as non-projective according to the just mentioned instructions.

### 10.4. Tendencies in topic-focus articulation (auxiliary instructions)

The notion of context (see Section 10.2.1, "Context") is not defined exactly, thus deciding on the tfa value and subsequently evaluating the communicative dynamism can be quite difficult, above all in certain marginal cases. This section contains further guidelines that can be helpful in determining the contextual boundness. They include strong tendencies exhibited by Czech and the influence of four important factors:

- lexical content of an expression (see Section 10.4.1, "Topic-focus articulation and the lexical content of an expression"),
- semantic type of the dependency relation (see Section 10.4.2, "Topic-focus articulation and the semantic type of dependency relation (functor)"),
- relationships between clauses (see Section 10.4.3, "Topic-focus articulation and relationships between clauses"),
- sentential modality (see Section 10.4.4, "Topic-focus articulation of questions").

All instructions described in this section are auxiliary instructions, the main criterion for assigning the $t f a$ value is always the relationship of a node to its context.

### 10.4.1. Topic-focus articulation and the lexical content of an expression

The lexical content (t-lemma) of a modification can be helpful in the annotation of contextual boundness. Certain lexical units are usually contextually bound and certain other lexical units tend to be contextually non-bound.

There are the following tendencies in the relationship between the topic-focus articulation and the lexical content of an expression:

- lexical units denoting something indefinite, unknown (indefinite pronouns, numerals and adverbs; e.g.: někdo (=somebody), něco (=something), jednou (=once), nëjaký (=some) etc.) tend to be contextually non-bound.

Nodes representing such lexical units are usually assigned the $t$ fa value $f$.

- deictic expressions (i.e. some pronouns, pronominal adverbs such as tam (=there), tady (=here), tudy (=through_here), tehdy (=then) and others) are mostly contextually bound (both contrastive and non-contrastive). These are lexical units referring to facts as if they were known and so connect them into the situational context or into the context of shared knowledge. Therefore they include also lexical units deducible from known facts (e.g.: včera (=yesterday), zitra (=tomorrow), pozitř́' (=day_after_tomorrow)). In this quite large set there are expressions with a stronger tendency (demonstrative pronouns) and expressions with a weaker tendency (possessive pronouns) towards contextual boundness.

The value $t$ in the attribute $t$ fa is primary for nodes representing such expressions; when they are used contrastively they can have also the value c. However, these expressions can constitute the focus proper (in case they carry the intonation centre) and have the value $f$.

Examples:
Mně [ $\mathrm{tfa}=\mathrm{c}$ ] ani tobě $[\mathrm{tfa}=\mathrm{c}$ ] se to $[\mathrm{tfa}=\mathrm{t}]$ nestane $[\mathrm{tfa}=\mathrm{f}]$ (= To_me nor to_you_it will_not_happen.)
$\underline{\text { Ten }[\mathrm{tfa}} \mathrm{t}]$ pes $[\mathrm{tfa}=\mathrm{t}] j e[\mathrm{tfa}=\mathrm{t} / \mathrm{f}] \underline{M U ゚ J}[\mathrm{tfa}=\mathrm{f}]$ (=lit. The dog is mine.)

- nouns governing numerals functioning as attributes tend towards (non-contrastive) contextual boundness (see Section 8.10.1.1, "Numerals with the role of an attribute (RSTR)"). These nodes usually are names of various units, which are commonly known and are part of the commonly shared knowledge (they can be absent in the surface structure of the sentence), or they are nodes repeated from the context which are further specified by the numerals.

The name of the counted object (the noun governing the numeral in the position of a modification with the functor RSTR) can also constitute a quasi-focus (see Section 10.3.1.2, "Quasi-focus").

Example:
Utratil [tfa=f] za tu [tfa=t] učebnici [tfa=t] sto [tfa=f] korun [tfa=t] (=lit. (He) spent for that textbook one_hundred crowns.) Fig. 10.13

NB! Most lexical units that have a tendency towards (non-contrastive) contextual boundness can constitute also the focus proper (see Section 10.3.1.1, "Focus proper") or form a contrastive contextually bound expression. These two positions can be occupied by almost any lexical unit. It is therefore necessary to distinguish them from other positions where the expressions are (non-contrastive) contextually bound due to their lexical content or syntactic function.

Figure 10.13. Topic-focus articulation and the lexical content of an expression


Utratil za tu učebnici sto korun. (=lit. (He) spent for that textbook one_hundred crowns.)
Exceptional cases - personal pronouns. Also the form of a modification can be helpful when annotating contextual boundness. The form used is substantial in the case of personal pronouns. In Czech, for personal pronouns there are two sets of forms for certain cases - strong (jeho (=he.ACC), jemu (=he.DAT), sebe (=oneself.ACC), sobě (=oneself.DAT), tobě (=you.DAT), tebe (=you.ACC)) and weak (ho (=he.ACC), mu (=he.ACC), se (=oneself.ACC), si (=oneself.DAT), tě (=you.ACC), ti (=you.DAT)).

If both strong and weak forms of a pronoun can be used, the actual form is usually motivated by the contextual boundness of the pronoun:

- weak forms appear in these positions only when the pronoun is (non-contrastive) contextually bound. Nodes representing the weak forms of pronouns (such as tě (=you.ACC), ti (=you.DAT), ho (=he.ACC), mu (=he.DAT), mi (=I.DAT) and often also neutral forms mé (=I.ACC, I.GEN), mnĕ (=I.DAT, I.LOC), ji (=she.ACC), jí (=she.DAT), jim (=they.ACC), jej (=he.ACC), nás (we.ACC) etc.) are assigned the $t$ fa value $t$.
- nodes representing the strong forms of pronouns (such as tebe (=you.ACC) ,jemu (=he.DAT) etc.) and neutral forms of pronouns are assigned the value f if they are the bearers of the intonation centre (see Section 10.1.2.1, "Intonation centre"), or they are assigned the value $c$ if they are used contrastively.

NB! After prepositions and in coordination, personal pronouns always take the strong form, so we cannot use their form to determine their contextual boundness. In such positions nodes representing the strong forms of pronouns get the $t$ fa value $t$.

Examples:

Pro tebe $[\mathrm{t} \mathrm{fa}=\mathrm{c}]$ to přinesu ZÍTRA. (=lit. To you it.ACC (I) will_bring tomorrow.)
Zitra to pro tebe [ $\mathrm{t} \mathrm{f} \mathrm{a}=\mathrm{t}$ ] PǨINESU. (=lit. Tomorrow it.ACC to you (I) will_bring.)
Zitra to přinesu PRO TEBE [tfa=f] (=lit. Tomorrow it.ACC (I) will_bring to you.)
ZÍTRA to pro tebe [ $\mathrm{t} \mathrm{fa}=\mathrm{t}$ ] přinesu. (=lit. Tomorrow it.ACC to you (I) will_bring.)
Jemu $[\mathrm{tfa}=\mathrm{c}]$ a tobě $[\mathrm{tfa}=\mathrm{c}]$ to přinesu ZÍTRA. (=lit. To_him and to_you it.ACC (I) will_bring tomorrow.)

Zitra to jemu [ $\mathrm{t} \mathrm{fa} \mathrm{=} \mathrm{t}$ ] a tobě $[\mathrm{tf} \mathrm{a}=\mathrm{t}]$ určitě $P$ ŘINESU. (=lit. Tomorrow it.ACC to_him and to_you by_all_means (I) will_bring.)

### 10.4.2. Topic-focus articulation and the semantic type of dependency relation (functor)

The semantic type of dependency relation (i.e. functor) can be helpful in annotating the contextual boundness of a modification. Modifications with certain functors are usually contextually bound, while modifications with other functors tend to be contextually non-bound.

There are the following tendencies in the relationship between topic-focus articulation and functors:

- modifications with the following functors tend to be contextually bound :
- the functor PREC.

All particles and paratactic connectives that signal connection to the preceding context are always non-contrastive contextually non-bound modifications (e.g.: tedy ( $=$ so), proto ( $=$ therefore), však (=however), tudiž (=hence), totiž (=thus) etc.), i.e. modifications with the functor PREC (see Section 7.7.4, "PREC"). Their primary function is to integrate the sentence into the context.

- the functor ATT.

Also attitudinal particles, i.e. modifications with the functor ATT, are usually non-contrastively contextually bound (see Section 7.7.1, "ATT").

Example:
Naštěstí.ATT [ $\mathrm{tfa}=\mathrm{t}]$ přišel $[\mathrm{tfa}=\mathrm{f}]$ (=lit. Fortunately (he) came.) Fig. 10.14

- the functor VOCAT.

Modifications with the functor VOCAT are also usually non-contrastively contextually bound (see Section 7.1.3, "VOCAT"), because they refer to the addressee of the text, who is part of the situational context. Vocatives usually stand at the beginning of sentences, which is also the position in tectogrammatical trees at which nodes with the VOCAT functor are placed. We move them to the first position in the tectogrammatical tree even if in the surface word order they stand somewhere else.

Example:
Jirko.VOCAT [tfa=t], podej [tfa=f] mi [tfa=t] pero [tfa=f] (=lit. George, pass me (the) pen.) Fig. 10.15

- modifications with the following functors tend to be contextually non-bound:
- functors for noun modifications (RSTR, APP, MAT or ID).

Most noun modifications, i.e. modifications with adnominal functors (see Section 7.10, "Specific adnominal functors"), especially with the functor RSTR, tend towards contextual nonboundness because their function is to specify their governing nouns. Nodes representing adnominal modifications expressed by adjectives, nouns, pronouns or numerals are therefore usually assigned the $t f a$ value $f$, even though they are placed to the left from the noun in the surface word order. We assign the value $t$ only when the particular attribute is repeated or is obvious from the preceding context.

Example:
Ve starém.RSTR [ $\mathrm{tfa}=\mathrm{f}$ ] parku [ tfa f t$]$ stál [ $\mathrm{tfa}=\mathrm{f} / \mathrm{t}]$ starý.RSTR [ tfa f = $]$ dům $[\mathrm{t} \mathrm{f} \mathrm{a}=\mathrm{f}]$ (=lit. In (an) old park stood (an) old house.) Fig. 10.16

## - functors for manner and its specific variants (MANN etc.).

Adverbs of manner that specify the event expressed by a verb, i.e. modifications with the functors for manner and its specific variants (see Section 7.6, "Functors for expressing manner and its specific variants"), especially with the functor MANN. Nodes representing these modifications are therefore usually assigned the $t f a$ value $f$ and are moved to the right after the verb (even though they stand to the left from it in the surface word order).

Example:
Rychle.MANN[tfa=f] přišel [tfa=f] (=lit. Quickly (he) came.) Fig. 10.17

- the functor MOD.

Also modal adverbials, i.e. modifications with the functor MOD (see Section 7.7.3, "MOD"), specifying the modality of the governing event, are contextually non-bound.

- the functor DENOM.

Nodes with the functor DENOM (see Section 7.1.2, "DENOM"), i.e. effective roots of nominative clauses (titles, lists etc.), are usually contextually non-bound. Nominative clauses are usually not related to context, they do not contain contextually bound expressions. In most cases, the whole nominative clause is contextually non-bound.

Example:
Škola.DENOM [tfa=f] šachových [tfa=f] koncovek [tfa=f] (=lit. School of_chess ending_games.) Fig. 10.18

## - the functor PAR.

The effective roots of syntactically non-incorporated parentheses, i.e. nodes with the functor PAR (see Section 7.1.5, "PAR"), are also usually contextually non-bound. The underlying order of nodes with the functor PAR, however, corresponds to their surface order because they represent independent clauses not integrated into the structure of the sentence.

This is an exception from the basic guidelines for the ordering of nodes on the tectogrammatical level (see Section 10.3.1, "Basic guidelines for the ordering of nodes in a tectogrammatical tree").

The behaviour of the so-called rhematizers (functor=RHEM) is very specific and we describe it in Section 10.6, "Rhematizers".

Figure 10.14. Topic-focus articulation and the semantic type of dependency relation (functor)


Naštěstí přišel. (=lit. Fortunately (he) came.)
Figure 10.15. Topic-focus articulation and the semantic type of dependency relation (functor)


Jirko, podej mi pero. (=lit. George, pass me (the) pen.)

Figure 10.16. Topic-focus articulation and the semantic type of dependency relation (functor)


Ve starém parku stál starý dům. (=lit. In (an) old park stood (an) old house.)
Figure 10.17. Topic-focus articulation and the semantic type of dependency relation (functor)


Rychle přišel. (=lit. Quickly (he) came.)

Figure 10.18. Topic-focus articulation and the semantic type of dependency relation (functor)


Škola šachových koncovek (=lit. School of_chess ending_games.)

### 10.4.3. Topic-focus articulation and relationships between clauses

This section deals with relationships between clauses in relation to topic-focus articulation. We focus especially on the relationships between clauses in compound (paratactic) sentences (see Section 10.4.3.2, "Topic-focus articulation of paratactic structures") and in complex (hypotactic) sentences (see Section 10.4.3.3, "Topic-focus articulation of dependent verbal clauses"), and on the annotation of the first sentence of a text (see Section 10.4.3.1, "Topic-focus articulation of the first sentence of a text").

General guidelines for the annotation of paratactically and hypotactically connected clauses can be found in Section 6.4, "Verbal and non-verbal clauses" and Section 6.5, "Dependent verbal clauses", respectively.

As for the annotation of the topic-focus articulation, the guidelines for paratactically connected independent clauses (i.e. compound sentences) differ substantially from the guidelines for clauses in dependency relation (i.e. complex sentences). There are, however, some exceptional cases of hypotactically connected sentences that are on the borderline between both types of complex sentences from the semantic point of view.

### 10.4.3.1. Topic-focus articulation of the first sentence of a text

When annotating the first sentence of a text, we cannot count upon its connection to the preceding text. We take for granted that the speaker starts the sentence with those expressions that he supposes the addresse will start from, and thus establishes them as the topic.

Nodes representing expressions directly dependent on the governing verb of the first sentence of a text that stand before the verb in surface word order are therefore assigned the $t f a$ value $t$ or $c$.

Also headlines are considered to be first sentences of a text provided they are expressed as verbal clauses.

The sentence following immediately after a headline is annotated as the second sentence of a text if it connects immediately and clearly to the headline; if the connection between its topic-focus articulation and the headline is unclear, we determine the contextual boundness of its expressions as if it were the first sentence of the text. Compare:

- (Dnešní zasedání sněmovny.) Na dnešním [tfa=t] zasedáni [tfa=t] sněmovny [tfa=t] předložili $[\mathrm{tfa} \mathrm{f} \mathrm{f}]$... (=lit. (Today's session of parliament) On today's session of parliament (they) introduced...)

The second clause connects to the preceding headline, it is therefore annotated as the second sentence of the text.

- (Dnešní zasedání sněmovny.) Vládní [ $\mathrm{t} \mathrm{f} \mathrm{a}=\mathrm{t}$ ] poslanci [ $\mathrm{tf} \mathrm{a}=\mathrm{t}$ ] předložili [ $\mathrm{tf} \mathrm{f}=\mathrm{f}$ ] na dnešním [ $\mathrm{tfa}=\mathrm{t}$ ] zasedáni [ $\mathrm{tfa}=\mathrm{f}$ ] snémovny [ $\mathrm{tfa}=\mathrm{f}]$... (=lit. (Today's session of parliament) Government MPs introduced on today's session of parliament...)

The second does not connect clearly to the preceding headline, it is therefore annotated as the first sentence of the text.

### 10.4.3.2. Topic-focus articulation of paratactic structures

Paratactic structures get a specific treatment in the tectogrammatical annotation (see Section 6.6, "Parataxis") and some additional guidelines concerning the annotation of their topic-focus articulation are required as well. When annotating paratactic structures, we adopt the following principles:

- the root of a paratactic structure is not assigned any tfa value. The root of a paratactic structure is placed centrally between the direct members of the paratactic structure.
- the attribute $t f a$ is not filled for nodes with the functor $C M$ either (i.e. nodes representing conjunction modifiers; see Section 8.16.1, "Co-ordinating connectives"). Nodes with the functor CM stay in the underlying order in a position parallel to that in the surface word order.
- the effective root of a shared modifier (i.e. the whole subtree) of a paratactic structure is placed as the leftmost direct dependent of the root of the paratactic structure if the effective root of the shared modifier is contextually bound; if the effective root of the shared modifier is contextually nonbound, it is placed as the rightmost direct dependent of the root of the paratactic structure.

Compare:

- Ten nůž má nerezovou $[\mathrm{tfa}=\mathrm{f}]$ čepel $[\mathrm{tfa}=\mathrm{f}]$ i rukojet' $[\mathrm{tfa}=\mathrm{f}]$ (=lit. That knife has stainless_steel blade and_also grip.)

In the tectogrammatical tree, the node representing the contextually non-bound shared modifier nerezovy (=stainless_steel) is placed as the rightmost direct dependent of the root of the paratactic structure (i.e. the right sister of the node representing the modification rukojet' (=grip)). Cf. Fig. 10.19.

If there are more than one shared modifier, the guidelines for the ordering of nodes in verbal groups apply (if verbs or adjectives are connected; see Section 10.3.2, "Ordering of nodes in verbal groups (verb phrases)"), or the guidelines for the ordering of nodes in nominal groups apply (if nouns are connected; see Section 10.3.3, "Ordering of nodes in nominal groups (noun phrases)").

Figure 10.19. Topic-focus articulation of paratactic structures


Ten nůž má nerezovou čepel i rukojet'. (=lit. That knife has stainless_steel blade and_also grip.)

### 10.4.3.2.1. Topic-focus articulation of paratactically connected dependent modifications and clauses

A paratactic connection of dependent modifications or clauses is a single unit in the topic-focus articulation of the sentence. As a single unit, it is either contextually bound or non-bound. With the only exceptions stated below, the terminal members of a paratactic structure have the same $t f a$ value.

Exceptions. The only exceptions are the cases when the governing node of a paratactically connected modification (represented as a terminal member of the paratactic structure) is repeated verbatim and cases of ellipsis in paratactic structures (see Section 6.12.1, "Ellipsis of the governing element"). In these cases, the second governing node of a paratactically connected modification (and possible further governing nodes) is always contextually bound (even if the first member is elided).

## Compare:

- Chci bydlet $[\mathrm{tfa} \mathrm{f}]$ ve státním [tfa=f] bytě $[\mathrm{tfa} \mathrm{f}]$, nebo $\underline{v}$ družstevním [tfa=f] bytě $[\mathrm{t} \mathrm{f} \mathrm{a}=\mathrm{t}]$ (=lit. (I) want to_live in (a) state flat or in (an) associated flat.)

The node representing the second governing member of the paratactically connected modification has the $t f a$ value $t$ because it is the verbatim repetition of the first governing node of the paratactically connected modification.

Different values of the $t$ fa attribute for the terminal nodes of a paratactic structure means different contextual boundness within the paratactic structure. The contextual boundness of the paratactic structure as a whole is represented by the $t f a$ value of the node representing the first governing member of the paratactically connected modification (i.e. the first terminal member). If the first (even non-expressed) governing member of a paratactically connected modification is contextually nonbound, we consider the whole paratactic structure to be contextually non-bound etc.

### 10.4.3.2.2. Topic-focus articulation of paratactically connected independent clauses

Paratactically connected independent clauses are considered to have separate topic-focus articulations. Expressions in the second clause may be contextually bound with respect to the preceding clause (if they are repeated or connect to expressions in the first clause).

The effective roots of paratactically connected independent clauses can have differing tfa values.
Examples:
Tom [ $\mathrm{tfa}=\mathrm{c}]$ přinesl $[\mathrm{tfa} \mathrm{f}]$ knihy [ tfa f$]$ ] pak [ tfa f t$]$ Jirka [ ffa f ] odnesl [ tfa f f$]$ noviny $[\mathrm{tfa}=\mathrm{f}]$ (=lit. Tom brought books and then George carried_away newspapers.) Fig. 10.20

Knihy $[\mathrm{tfa}=\mathrm{c}]$ odnesl $[\mathrm{tfa}=\mathrm{f}]$ a noviny [tfa=c] přinesl [tfa=f] (=lit. Books.ACC (he) carried_away and newspapers.ACC (he) brought.) Fig. 10.21

Chodil [tfa=f] sem [tfa=f] a chodil [tfa=t] tam [tfa=f], ale nenašel [tfa=f] nic $[\mathrm{tfa}=\mathrm{f}]$ (=lit. (He) walked hence and (he) walked forth but (he) did_not_find anything.) Fig. 10.22

Figure 10.20. Topic-focus articulation of paratactically connected independent clauses


Tom přinesl knihy a pak Jirka odnesl noviny. (=lit. Tom brought books and then George carried_away newspapers.)

Figure 10.21. Topic-focus articulation of paratactically connected independent clauses


Knihy odnesl a noviny přinesl. (=lit. Books.ACC (he) carried_away and newspapers.ACC (he) brought.)

Figure 10.22. Topic-focus articulation of paratactically connected independent clauses


Chodil sem a chodil tam, ale nenašel nic. (=lit. (He) walked hence and (he) walked forth but (he) did_not_find anything.)

### 10.4.3.3. Topic-focus articulation of dependent verbal clauses

Clauses in the relationship of dependency (hypotactic, complex sentence) are usually annotated according to the surface word order (see Section 10.1.1, "Surface word order"): if the dependent clause stands to the left from its governing verb, the node representing the governing predicate of the dependent clause is assigned the value $t$ and the whole subtree stays on the left; if the dependent clause stands to the right from its governing verb, the node representing the governing predicate of the dependent clause is assigned the value $f$ and the whole subtree stays on the right.

Dependent adverbial clause. However, during the process of annotation we discovered that certain complex sentences with adverbial dependent clauses, especially causal and temporal, behave as paratactically connected compound sentences from the point of view of topic-focus articulation. The information contained in a dependent clause (especially when it is to the left from the main clause) introduces an event so independent from the event of the governing clause from the point of view of their contextual boundness that it can very hardly be interpreted as a bound or non-bound part of the main clause (see also Section 6.6.2, "Coordination and apposition"). For this reason, we introduced more detailed guidelines for the annotation of topic-focus articulation for dependent adverbial clauses:

- if a dependent adverbial clause introduces a relatively independent event and it comes before the governing clause for semantic reasons (temporal or causal succession), the subtree of the dependent clause stays to the left from its governing node and the effective root of the dependent clause is assigned the $t f a$ value $f$. Compare:
- Jestliže se nám podaří $[\mathrm{ffa}=\mathrm{f}]$ zasadit strom, můžeme se těšit [ $\mathrm{t} \mathrm{f} \mathrm{a}=\mathrm{f}]$ na jablka. (=lit. If _ we manage to plant (a) tree, we can look_forward to apples.)

The effective root of the dependent adverbial clause is placed to the left from its governing node, even though its $t f a$ value is $f$. Cf. Fig. 10.23.

This is one of the exceptions from the basic guidelines for the ordering of nodes at the tectogrammatical level (see Section 10.3.1, "Basic guidelines for the ordering of nodes in a tectogrammatical tree").

- if a dependent adverbial clause comes before the governing clause and it is in a contrastive position (it carries a contrastive stress; see Section 10.1.2.2, "Contrastive stress"), the effective root of the dependent clause is assigned the $t f a$ value $c$ and stays to the left from its governing node in the tectogrammatical tree. Compare:
- Protože se program osvědčil $[\mathrm{t} \mathrm{f} \mathrm{a}=\mathrm{c}]$ v zahraničí, použili $[\mathrm{tfa}=\mathrm{f}] h o .(=$ lit. Because _(the) program proved_good _abroad, (they) used it.)

The effective root of the dependent adverbial clause is assigned the $t f a$ value $c$ and is placed to the left from its governing node. Cf. Fig. 10.24.

In case of doubt the latter guideline has precedence over the former one.
!!! There remains as an unresolved issue the problem of determining a well defined borderline between annotating dependent clauses as modifications of the main clause and annotating them as stand-alone communicative units.

Figure 10.23. Topic-focus articulation of dependent adverbial clauses


Jestliže se nám podaří zasadit strom, můžeme se těšit na jablka. (=lit. If _ we manage to_ plant (a) tree, we can look_ forward to apples.)

Figure 10.24. Topic-focus articulation of dependent adverbial clauses


Protože se program osvědčil v zahraničí, použili ho. (=lit. Because _ (the) program proved good _ abroad, (they) used it.)

Direct speech introduced by a verb . The following guidelines apply to constructions with direct speech introduced by a verb (see Section 8.3.1.1, "Direct speech as the argument of a verb"):

- direct speech is usually more communicatively dynamic than the reporting clause (except in cases where the reporting clause contains the focus proper).

Examples:
Jirka [tfa=c/t] řekl [tfa=f/t] "Je [tfa=f] dobře [tfa=f]." (=lit. George said,"(It) is good. ") Fig. 10.25
"Je [tfa=f] dobře [tfa=f]," reekl [tfa=f/t] Jirka [tfa=c/t] (=lit. "(It) is good," said George.)

Taky [tfa=f] JIRKA [tfa=f] řekl [tfa=t] :"Je [tfa=t] dobře [tfa=f] ." (=lit. Also George said, "(It) is good.")

Figure 10.25. Topic-focus articulation of direct speech introduced by a verb


Jirka řekl: "Je dobře." (=lit. George said,"(It) is good.")

### 10.4.4. Topic-focus articulation of questions

The guidelines for the annotation of questions are almost the same as for the annotation of declarative clauses, nevertheless the surface word order of questions is often different.

In subsequent sections we describe separately guidelines for yes-no questions (see Section 10.4.4.1, "Topic-focus articulation of yes-no questions"), wh-questions (see Section 10.4.4.2, "Topic-focus articulation of wh-questions") and for indirect questions (see Section 10.4.4.3, "Topic-focus articulation of indirect questions").

### 10.4.4.1. Topic-focus articulation of yes-no questions

In Czech, there are two ways to form yes-no questions: using intonation or inverse word order.
Questions formed using intonation. If a question is formed using intonation, the word order of the corresponding declarative clause is preserved and so is its topic-focus articulation. Contextually bound expressions are usually placed before the governing node of the question, contextually non-bound expressions to the right from it, with the focus proper placed rightmost.

## Examples:

Letos $[\mathrm{tfa}=\mathrm{t}]$ v létě $[\mathrm{tfa} \mathrm{f}]$ pojedeš $[\mathrm{tfa}=\mathrm{f} / \mathrm{t}]$ NA HORY [ $\mathrm{f} \mathrm{f}=\mathrm{f}]$ ? (=lit. This_year in summer (you) will_go to mountains?) Fig. 10.26

Na hory [ $\mathrm{tfa}=\mathrm{c}]$ pojedeš $[\mathrm{tfa}=\mathrm{f}]$ letos $[\mathrm{tfa}=\mathrm{f}]$ V LÉTĚ $[\mathrm{tfa}=\mathrm{f}]$ ? (=lit. To mountains (you) will_go this_year in summer?)

Na hory [ $\mathrm{ffa=c]} \mathrm{letos} \mathrm{[tfa=t]} \mathrm{pojedeš} \mathrm{[tfa=t]} \mathrm{~V} \mathrm{LÉTĚ} \mathrm{[tfa=f]} \mathrm{?} \mathrm{(=lit}$. this_year (you) will_go in summer?)

Na hory [ $\mathrm{ffa=c]} \mathrm{letos} \mathrm{[ } \mathrm{ffa=t]}$ v létě [ $\mathrm{ffa=t]} \mathrm{POJEDEŠ} \mathrm{[tfa=f]} \mathrm{?} \mathrm{(=lit}$. this_year in summer (you) will_go?)

Even in the case of yes-no questions formed using intonation, the verb can apper on the second position in the sentence (for that see Section 10.1.1, "Surface word order").

Example:
Letos $[\mathrm{tfa}=\mathrm{c}]$ pojedeš [ $\mathrm{tfa}=\mathrm{t}]$ v létě [tfa=t] NA HORY [tfa=f] ? (=lit. This_year (you) will_go in summer to mountains?)

Questions formed using inverse word order. If a question is formed using inverse word order, the situation is more complex:

- the node representing the expression carrying the intonation centre of the question is assigned the $t f a$ value $f$ and moved (with respect to the surface word order) to the rightmost position (on the rightmost path) as the focus proper of the question.
- the governing verb (even though it is in the initial position in the question) is considered (if not repeated from the preceding context) to be the least communicatively dynamic contextually nonbound expression. The node representing the governing verb is therefore assigned the $t f a$ value $f$, and if it does not constitute the focus proper, all its contextually bound dependent nodes are placed to the left from it and all its contextually non-bound dependent nodes to the right from it.

As the verb occupies the initial position, it cannot signal the division between contextually bound and non-bound expressions as usual. The only clue apart from the semantics is a violation of the systemic ordering.

Example:
Pojede [tfa=f] Jirka [tfa=c] letos [tfa=t] vlétě [tfa=t] NA HORY [tfa=f] ? (=lit. Will_go George this_year in summer to mountains?) Fig. 10.27

- nodes representing contextually non-bound expressions have the same order as in the surface word order if they are between the node for the verb and the focus proper.
- nodes representing (contrastive or non-contrastive) contextually bound direct modifications of the verb have the values $t$ or $c$ and are ordered according to the guidelines for the ordering of nodes in verbal groups, which are described in Section 10.3.2.2, "Ordering of contextually bound nodes in verbal groups".


## Examples:

(Postmodernismus.) Nastane [ $\mathrm{tfa}=\mathrm{f}$ ] nyní [ $\mathrm{tfa}=\mathrm{t}$ ] na Zábradlí [ $\mathrm{tfa}=\mathrm{t}$ ] postmodernistická [ $\mathrm{tfa}=\mathrm{t}]$ éra $[\mathrm{tfa}=\mathrm{f}]$ ? (=lit. (Postmodernism.) Will_there_be now at Zábradlí (a) postmodern era?) Fig. 10.28

Odnesl jsi [ $\mathrm{ffa}=\mathrm{f}]$ ten [ $\mathrm{ffa}=\mathrm{t}]$ kufr [ $\mathrm{tfa}=\mathrm{t}]$ ? (=lit. Did_you_carry_away_the suitcase?) Fig. 10.29

A yes-no question can also exhibit the subjective order (see Section 10.1.1, "Surface word order"). In such cases nodes are reordered according to the same guidelines as in unmarked cases.

Example:
NA DOVOLENOU [ $\mathrm{tfa}=\mathrm{f}]$ Jirka [ $\mathrm{ffa}=\mathrm{t}]$ pojede [ $\mathrm{tfa}=\mathrm{t}]$ ? (=lit. On holiday George will_go?) Fig. 10.30

Figure 10.26. Topic-focus articulation of yes-no questions


Letos v létě pojedeš na hory? (=lit. This_year in summer (you) will_go to mountains?)
Figure 10.27. Topic-focus articulation of yes-no questions


Pojede Jirka letos v létě na hory? (=lit. Will_go George this_year in summer to mountains?)

Figure 10.28. Topic-focus articulation of yes-no questions

(Postmodernismus.) Nastane nyní na Zábradlí postmodernistická éra? (=lit. (Postmodernism.) Will_there_be now at Zábradlí (a) postmodern era?)

Figure 10.29. Topic-focus articulation of yes-no questions


Odnesl jsi ten kufr? (=lit. Did_you_carry_away _the suitcase?)

Figure 10.30. Topic-focus articulation of yes-no questions


Na dovolenou Jirka pojede? (=lit. On holiday George will_go?)

### 10.4.4.2. Topic-focus articulation of wh-questions

Wh-questions are formed using interrogative words. Since the interrogative expression represents what the speaker is asking, it usually constitutes the focus proper (see Section 10.3.1.1, "Focus proper"), but it need not be so. In examples such as Kam pojedeš NA DOVOLENOU? (=lit. Where (you) will_go on holiday?), the focus proper is constituted by the last expression in the sentence, which at the same time carries the intonation centre (see Section 10.1.2.1, "Intonation centre").

Here are the guidelines for the annotation of wh-questions:

- the node representing the interrogative expression is assigned the $t f a$ value $f$, and provided it does not constitute the focus proper, it is placed right after the governing verb.
- the node representing the expression carrying the intonation centre in the spoken form of the sentence is assigned the $t$ fa value $f$ and is moved to the rightmost position (on the rightmost path) as the focus proper of the question.

If the intonation cannot be determined unambiguously, we consider the interrogative expression to constitute the focus proper.

- the node representing the governing verb is usually assigned the $t$ fa value $f$ and signals as usual the division between contextually bound and non-bound nodes: all its contextually bound dependent nodes are placed to the left from it and all its contextually non-bound dependent nodes to the right from it. In wh-questions, the verb quite often stands in the second position in the sentence (see Section 10.1.1, "Surface word order").
- a node representing an expression standing between the interrogative expression and the verb which can be pronounced with a contrastive stress and which is not directly deducible from the preceding context is assigned the $t f a$ value $c$ and moved to the left. This applies also to expressions standing to the right from the verb.

Example:
Kam [tfa=f] Jirka [tfa=t] pojede [tfa=f] NA DOVOLENOU [tfa=f] ? (=lit. Where George will_go on holiday?) Fig. 10.31

- nodes representing contextually bound direct modifications of the verb are assigned the $t$ fa value $t$ and are placed to the left from the node for the governing verb according to the guidelines for the ordering of nodes in verbal groups, described in Section 10.3.2.2, "Ordering of contextually bound nodes in verbal groups".

Examples:
Jakým [ $\mathrm{tfa}=\mathrm{f}$ ] zpuisobem [ $\mathrm{ffa}=\mathrm{t}$ ] peněžni $[\mathrm{tfa}=\mathrm{t}]$ ústavy [ $\mathrm{tfa}=\mathrm{t}]$, které [ $\mathrm{tfa}=\mathrm{t}$ ] chcete na ocenění $[\mathrm{tfa}=\mathrm{t}]$ nominovat $[\mathrm{t} \mathrm{fa}=\mathrm{t}]$, vybiráte $[\mathrm{tfa} \mathrm{f}]$ ? (=lit. In_what way bank houses.ACC that (you) want to_nominate for (the) prize (you) select?) Fig. 10.32

Na dovolenou $[\mathrm{tfa}=\mathrm{c}]$ pojedeš $[\mathrm{tfa}=\mathrm{t}]$ KAM $[\mathrm{tfa}=\mathrm{f}]$ ? (=lit. On holiday (you) will_go where?) Fig. 10.33

Kdy [tfa=f] pošlete [tfa=f] i [tfa=t] Karlovi [tfa=c] jeho [tfa=t] penize [tfa=t] ? (=lit. When (you) will_send also to_Charles his money?) Fig. 10.34

Also wh-questions can exhibit the subjective order (see Section 10.1.1, "Surface word order"). In such cases nodes are reordered according to the same guidelines as in unmarked cases.

Example:
KOLIK [tfa=f] bank [tfa=t] jste v letošním [tfa=c] roce [tfa=t] na cenu [tfa=t] nominovali $[\mathrm{f} \mathrm{fa}=\mathrm{f}]$ ? (=lit. How_many banks (you) did in this year for (the) prize nominate?) Fig. 10.35

Figure 10.31. Topic-focus annotation of wh-questions


Kam Jirka pojede na dovolenou? (=lit. Where George will_go on holiday?)

Figure 10.32. Topic-focus annotation of wh-questions


Jakým zpuisobem peněžní ústavy, které chcete na ocenění nominovat, vybiráte? (=lit. In_what way bank houses.ACC that (you) want for (the) prize to_nominate (you) select?)

Figure 10.33. Topic-focus annotation of wh-questions


Na dovolenou pojedeš kam? (=lit. On holiday (you) will_go where?)

Figure 10.34. Topic-focus annotation of wh-questions


Kdy pošlete i Karlovi jeho penize? (=lit. When (you) will_send also to_Charles his money?)
Figure 10.35. Topic-focus annotation of wh-questions


Kolik bank jste v letošním roce na cenu nominovali? (=lit. How_many banks (you) did in this year for (the) prize nominate?)

### 10.4.4.3. Topic-focus articulation of indirect questions

From the point of view of the topic-focus articulation, indirect questions behave similarly to direct questions.

The annotation of the topic-focus articulation of most indirect questions follows the guidelines for the annotation of wh-questions (see Section 10.4.4.2, "Topic-focus articulation of wh-questions").

Example:
Nevím [tfa=f], jak [tfa=f] tomu [tfa=t] zabránite [tfa=f] (=lit. (I) do_not_know how it.ACC (you) will_prevent.) Fig. 10.36

Indirect questions introduced by the expressions $z d a$ ( $=$ whether), jestli ( $=i f$ ) are annotated according to the guidelines for wh-queations (see Section 10.4.4.1, "Topic-focus articulation of yes-no questions").

Figure 10.36. Topic-focus articulation of indirect questions


Nevím, jak tomu zabránite. (=lit. (I) don't_know, how (you) it prevent)

### 10.5. Topic and focus

We assume that each complete sentence divides from the point of view into two complex categories:

- topic (see Section 10.5.1, "Topic"),
- focus (see Section 10.5.2, "Focus").

The complex categories of topic and focus are not annotated explicitly in the tectogrammatical trees, we however suppose that they can be deduced from them. Below we describe a hypothesized procedure for determining the topic and focus based on annotated tectogrammatical trees.

### 10.5.1. Topic

Topic consists of that part of the sentence that connects it to the preceding context - its meaning connects to expressions that have already appeared in the text, to facts deducible from them or to facts assumed to be known to the addressee.

We assume that in a tectogrammatical tree, the topic consists of the following nodes:

- the effective root of the sentence (the node representing the governing verb) if its $t f a$ value is t ;
- nodes with the value $t$ in the attribute $t$ fa dependent on the effective root of the sentence which are not ancestors of the focus proper (see Section 10.3.1.1, "Focus proper"), and all their descendant nodes.
- nodes with the value $c$ in the attribute $t f a$ dependent on the effective root of the sentence and all their descendant nodes.

In the tectogrammatical trees, the topic is placed on the left.
We consider the contrastive topic to be part of the topic - see Section 10.5.1.1, "Contrastive topic".

### 10.5.1.1. Contrastive topic

Connecting into the context using contrast is a specific type of contextual boundness. A certain part of a new sentence is put into contrast with some fact known from the preceding context.

We call the contrastive contextually bound part of the topic contrastive topic .
We assume that in a tectogrammatical tree, a contrastive topic consists of the following nodes:

- nodes with the value c in the attribute tfa and all their descendant nodes.


### 10.5.2. Focus

Focus consists of that part of the sentence that introduces new information not deducible from the context, which is more communicatively important than topic and cannot be omitted from the sentence.

We assume that the focus is necessarily present in each sentence.
We assume that in a tectogrammatical tree, the focus consists of the following nodes:

- the effective root of the sentence (the node representing the governing verb) its tfa value is $f$;
- nodes with the value f in the attribute $\mathrm{t} f$ a dependent on the effective root and all their descendant nodes;
- those more deeply embedded nodes with the value $f$ in the attribute $t f a$ that depend on a node with the value $t$ provided one of them is the focus proper (see Section 10.3.1.1, "Focus proper").

In the tectogrammatical trees, the focus is placed on the right.

### 10.6. Rhematizers

Rhematizers are expressions whose function is to signal the topic-focus articulation categories in the sentence, namely the communicatively most important categories - the focus (see Section 10.5.2, "Focus") and contrastive topic (see Section 10.5.1.1, "Contrastive topic").

The position of rhematizers in the surface word order is quite loose, however they almost always stand right before the expressions they rhematize, i.e. the expressions whose being in the focus or contrastive topic they signal. We say about the part of the sentence that is rhematized that it is in the scope of the rhematizer . A rhematizer's scope can comprise one or more expressions.

Different word-order positions of a rhematizer lead to different interpretations of the sentence. Compare:

- Jen KAREL šel domů. (=lit. Only Charles went home.)
= Nikdo jiný než Karel nešel domů. (=No one apart from Charles went home.)
- Karel jen šel domů. (=lit. Charles only went home.)
= Karel nedělal nic jiného, než že šel domů. (=Charles did nothing else than going home.)
- Karel šel jen domů. (=lit. Charles went only home.)
= Karel nešel nikam jinam, než domů. (=Charles did not go anywhere else than home.)
If the meaning of a sentence does not change when an expression is moved to a different position in the surface word order, the expression does not have the function of a rhematizer in the sentence. Compare:
- Honza se tam třeba bude zitra nudit. (=lit. Johnny _ there mayby will tomorrow be_bored.) = Třeba se tam Honza bude zitra nudit. (=lit. Maybe _there Johnny will tomorrow be_bored.)

Třeba (=maybe) is not (in this case) a rhematizer.

### 10.6.1. Expressions with the function of a rhematizer

The function of rhematizers is performed mostly by particles and certain adverbs. Most expresstions that fulfill the function of a rhematizer are functionally homonymous (they fulfill also other functions). The function of a rhematizer is often fulfilled by particles and adverbs that primarily express adverbial modifications (see Section 10.6.1.1, "Homonymy: rhematizer - adverbial modifications" and Section 10.6.1.2, "Homonymy: rhematizer - modal expressions (ATT and MOD)"). Rhematizers are also homonymous with some conjunction modifiers (see Section 10.6.1.3, "Homonymy: rhematizer - conjunction modifier").

Prototypical rhematizers. Prototypical rhematizers are expressions whose primary function is to be a rhematizer i.e. those expressions that most often fulfill the function of a rhematizer. Prototypical rhematizers can rhematize one or more parts of a sentence (constituents), i.e. have a narrower or wider scope. They can appear both in the focus (where they rhematize the whole focus) and in the topic (where they rhematize the contrastive topic). Their meaning usually encompasses emphasis or fronting. Other expressions with the function of a rhematizer can lack some of these features.

Prototypical rhematizers include: pouze (=only), jen (=only), jenom (=only), zejména (=in_particular), zvláště (=especially), předevšim (=primarily), obzvlášt' (=especially), hlavně (=mainly), jedině (=only), napřiklad (=for example), toliko (=just), ne (=no), ano (=yes), výhradně (=exclusively), výlučně (=exclusively) etc.

Expressions for negation and affirmation. Also expressions for syntactic negation and affirmation usually fulfill the role of rhematizers (see Section 6.13, "Modality and negation"). They comprise two types of expressions:

- negative and affirmative particles ano (=yes), ne (=no), nikoli/v (=nay) .
- negative morpheme ne- at negative forms of verbs.

We interpret these expressions as rhematizers in two cases:

- negative expressions negate the validity of the content of the whole utterance or one of its parts.

Examples:
Stalo se to ne mou vinou. (=lit. Happened _it not through_my fault.)
Nestalo se to mou vinou. (=lit. Did_not_happen _it through_my fault.)

- negative or affirmative expressions (only the particles ne (=no), nikoli/v (=nay) or ano (=yes)) stand for a non-expressed verb and express its positive or negative meaning.

Examples:
My se máme dobře, ale vy ne. (=lit. We _are well but you not.)
My se nemáme dobře, ale vy ano. (=lit. We _are_not well but you yes.)

For guidelines for the annotation of such constructions see Section 8.13.1, "Negating and affirmative expressions as rhematizers".

### 10.6.1.1. Homonymy: rhematizer - adverbial modifications

The function of a rhematizer is often fulfilled by expressions with the primary function of an adverbial modification. It is crucial to distinguish the cases where an adverb or a particle has its original adverbial meaning from the cases where it has the function of a rhematizer. Table Table 10.3, "Functional homonymy: rhematizer - adverbial modification" presents the most common cases of the functional homonymy rhematizer - adverbial modification.

Table 10.3. Functional homonymy: rhematizer - adverbial modification

| Expression | Example of the expression used as a rhematizer | Adverbial meanings of the expression (functors) | Example of the expression used as an adverbial modification |
| :---: | :---: | :---: | :---: |
| nejvýše <br> (=at_most) <br> nanejvýs <br> (=at_most) <br> nejméně <br> (=at_least) <br> minimálně <br> (=at_least) <br> maximálně <br> (=at_most) <br> aspoň (=at_least) <br> alespoñ <br> (=at_least) <br> akorát (=exactly) | Dal bych mu nejméně.RHEM domácí vězení. (=lit. (I) give would to_him at_least home imprisonment.) <br> Nejméně. RHEM Jirka o tom věděl. (=lit. At_least. George about it knew.) | EXT - specification of a numeral | Stálo to nejméně.EXT sto korun. (=lit. Was_worth it hundred crowns.) |
| $u z ̌$ (=already) <br> jizz (=already) | Už.RHEM Komenský to hlásal. (=lit. Already Komenský it.ACC propagated.) <br> UZZ.RHEM to(hle) Komenský hlásal. (=lit. Already this.ACC Komenský propagated.) | $\begin{aligned} & \text { TWHEN - "nyní } \\ & \text { (=now)" } \end{aligned}$ | Nastává už.TWHEN doba, $k d y . .$. (=lit. Comes already (the) time when...) <br> Jirka je uzz.TWHEN po večeři. (=lit. George is already after dinner.) |
| zrovna (=just) <br> právě (=just) <br> teprve (=only) | Právé.RHEM jemu jsem to řekl. (=lit. Just to_him (I) have it.Acc said.) <br> Právě.RHEM tohle jsem mu řekl. (=lit. Just this.ACC (I) have to_him said.) | $\begin{aligned} & \text { TWHEN - "nyní } \\ & (=\text { now }) " \\ & \text { EXT - "přesně (=ex- } \\ & \text { actly)" } \end{aligned}$ | Právé.TWHEN vystoupil z auta. (=lit. (He) right_now got_out of (the) car.) <br> Právě.TWHEN se chystám ven. (=lit. (I) right_now _ am_going out.) <br> Pozvěte právě.EXT sto lidí. (=lit. Invite just hundred persons.) |
| až (=almost, at_most) | Působilo to až.RHEM děsivě. (=lit. Looked it.NOM almost horribly.) <br> Přijde azz.RHEM zitra. (=lit. (He) will_come only tomorrow) | $\begin{aligned} & \text { EXT - "nejvýše } \\ & \text { (=at_most)" } \end{aligned}$ | Protestovat přijde azz.EXT dvacet tisic lidí. (=lit. To _protest will_come at_most twenty thousand persons.) |
| zase <br> (=on_the_other_hand, again) | Já to mám špatně a Jirka zase.RHEM dobře. (=lit. I it.ACC have wrong and George on_the_other_hand right.) | TWHEN | Přijdu zase.TWHEN (=lit. <br> (I) will_come again.) |


| Expression | Example of the expression used as a rhematizer | Adverbial meanings of the expression (functors) | Example of the expression used as an adverbial modification |
| :---: | :---: | :---: | :---: |
| přimo (=just, directly) | Byl přimo. RHEM okouzlující. (=lit. (He) was just enchanting.) <br> Přimo.RHEM Jirkovi jsem to řikal. (=lit. Just to_George (I) have it.Acc said.) | DIR2 - "rovně <br> (=straight)" <br> MANN | Cesta vedla přímo.DIR2 (=lit. (The) road led straight.) <br> Řekni mi to přímo.MANN (=lit. Tell to_me it.Acc directly.) |
| zvlášt' (=especially, separately) | Dejte si pozor zvlástı’.RHEM na komplexní sloučeniny. (=lit. Pay _attention especially to complex compounds.) | MANN | Zaplatíme zvlášt’.MANN (=lit. (We) will_pay separately.) |
| hned (=right_away, immediately) | Vzal si hned.RHEM tři krajíce. (=lit. (He) took_right_away three slices.) | TWHEN | Přijdu hned.TWHEN (=lit. <br> (I) will_come immediately.) <br> Udělej to hned.TWHEN (=lit. Do it immediately.) |
| naopak <br> (=on_the_contrary, contrariwise) | Přišel naopak.RHEM Jirka. (=lit. Came on the_contrary George.) <br> Jirka naopak.RHEM vstal. (=lit. George on_the_contrary got_up.) | MANN - "obráceně (contrariwise)" | Všechno dělal naopak.MANN, než ти řekli. (=lit. Everything.ACC (he) did contrariwise than to_him (they) told.) |
| převážně <br> (=mainly) <br> většinou <br> (=mostly) <br> vesměs (=largely) | Převážně.RHEM hoši si na to stěžují. (=lit. Mainly boys _ about that complain.) | THO - "většinu času (=most_of_the_time)" | Převážně.THO jsme chodili <br> běhat. (=lit. <br> Most_of_the_time (we) <br> were going running.) |

### 10.6.1.2. Homonymy: rhematizer - modal expressions (ATT and MOD)

As rhematizers function also expressions that in addition to the their emphasizing function (i.e. rhematizer) can have a modal function, which we annotate as modifications with the functors ATT or MOD (see Section 7.7.3, "MOD" and Section 7.7.1, "ATT").

These homonymous expressions are analyzed as rhematizers in those cases where they have only the emphasizing function, the meaning of the sentence depends on their position, and they have scope only over a part of the sentence. These expressions are annotated as modifications with the functors ATT or MOD in they have a modal meaning, especially when they apply to the sentence as a whole and their position in the surface word order does not matter. Compare:

- Třeba.ATT se tam budu nudit. (=lit. Maybe _there (I) will be_bored.)
= Já se tam třeba budu nudit. (=lit. (I) _there maybe will be_bored.) = Já se tam budu nudit, třeba. (=lit. (I) _there will be_bored, maybe.)
- Třeba.RHEM já se tam budu nudit. (=lit. For_instance I_there will be_bored.)
$\neq$ Já se tam třeba budu nudit. (=lit. (I) _ there maybe will be_bored.)

Homonymous expressions of this type include: to (=that), leda (=only), též (=also), rovněz (=also), take (=also), taktéž (=also), zároveň (=at_the_same_time), prakticky (=practically), spiše (=rather), třeba (=maybe) etc.
!!! Adjuncts with the functors MOD and ATT behave similarly to rhematizers. Their meaning of a degree of probability or an attitude affects a part of the statement, a subtree, or the whole statement. See Section 6.11.1.3, "The semantic scope of modifications with the functors MOD and ATT". In the future, nodes with the functors MOD and ATT should be annotated analogously to rhematizers.

### 10.6.1.3. Homonymy: rhematizer - conjunction modifier

Most expressions that can have the function of a rhematizer (including the prototypical ones) can also fulfill the function of an expression modifying a paratactic connective (i.e. conjunction modifier; see Section 8.16.1.2, "Conjunction modifiers").

These include: alespoň (=at_least), aspoň (=at_least), hlavně (=mainly), jen (=only), jenom (=only), jmenovitě (=namely), konkrétně (=concretely), maximálně (=at_most), napřiklad (=for_example), nejméně (=at_least), nejen (=not_only), nejenom (=not_only), pouze (=only), právě (=just), předevšim (=primarily), převážně (=mainly), přimo (=just), přinejmenšim (=at_least), spiše (=rather), takřka (=almost), třeba (=for_instance), třebas (=for_instance), vétšinou (=mostly), vlastně (=actually), vůbec (=at_all), výhradně (=exclusively), výlučně (=exclusively), vysloveně (=utterly), zejména (=in_particular), zvlášt' (=especially), zvláště (=especially) etc.

Also expressions of negation can be part of complex paratactic connectives (i.e. they can be conjunction modifiers; see Section 8.13.3, "Negating expressions as conjunction modifiers").

A homonymous expression is analyzed as a conjunction modifier if it is placed between the individual members of a paratactic connection (parataxis of sentence parts) - such a paratactic structure constitutes a single unit in the topic-focus articulation of the sentence (see Section 10.4.3.2.1, "Topic-focus articulation of paratactically connected dependent modifications and clauses"), so there cannot be the borderline between the topic and focus inside it; therefore the expression in the middle of a paratactic connection does not signal the focus (it does note have a rhematizing function), it merely modifies the paratactic connection. Compare:

- Kritika se vztahuje zejména.RHEM na Pavla. (=lit. (The) critique _applies in_particular to Paul.)

The expression zejména (=in_particular) rhematizes the Patient na Pavla (=lit. to Paul) .

- Kritika se vztahuje na Pavla a zejména.CM na Janu. (=lit. (The) critique _applies to Paul and in_particular to Jane.)

The expression zejména (=in_particular) is a part of the complex paratactic connective a zejména (=and in_particular) .

In case of clausal parataxis, a homonymous expression can behave both as a rhematizer and as a conjunction modifier. We decide according to the presence of a scope of the expression over a part of one of the paratactically connected clauses. If there is scope, it is a rhematizer.

For more examples see Section 8.16.1.2, "Conjunction modifiers".
For guidelines for the annotation of paratactic structures with a rhematizer see Section 10.6.4.1, "Rhematizers in paratactic structures".

### 10.6.2. Basic guidelines regarding the position of rhematizers in tectogrammatical trees

Nodes representing rhematizers are assigned the functor RHEM (see Section 7.7.5, "RHEM").

The guidelines for positioning of rhematizers in tectogrammatical trees are simple:

- a rhematizer (i.e. the node representing the rhematizer) is placed as the closest left sister (in the underlying word order) of the first node of the expression that is in its scope.
- if the scope of a rhematizer includes the governing predicate, the rhematizer is placed as the closest left daughter of the node representing the governing predicate.
- if a rhematizer constitutes the focus proper, it is placed according to the guidelines for the position of the focus proper (see Section 10.3.1.1, "Focus proper") - i.e. on the rightmost path leading from the effective root of the tectogrammatical tree.

Scope of a rhematizer. Thus, the position of a rhematizer in the tectogrammatical tree is determined according to over which part of the sentence it has scope. A rhematizer signaling the focus has in principle in its scope all contextually non-bound modifications (including their further modifications) standing to the right from it in the surface structure of the sentence. A rhematizer signaling a contrastive topic has in principle in its scope the first contrastive contextually bound modification (including its further modifications) standing to the right from it. There are, however, complex constructions, mainly within nominal groups (see Section 10.6.4.2, "Rhematizers in nominal groups"), where the scope of a rhematizer over further modifications (contextually non-bound or contrastive contextually bound) is questionable. It seems that the "strength" of a scope diminishes downwards in the structure of the sentence. These phenomena, however, have not been studied thoroughly.

In the surface structure of the sentence, a rhematizer can be followed by:

- contextually non-bound expressions (nodes representing such expressions are assigned the tfa value $f$; see Section 10.2.2.3, "Contextually non-bound expression (value $f$ in attribute $t f a$ )").

The rhematizer signals that the contextually non-bound expressions belong to the focus. The scope of the rhematizers usually covers the whole part of the sentence after the rhematizer.

- a contrastive contextually bound expression (a node representing such an expression is assigned the $t f a$ value $c$; see Section 10.2.2.2, "Contrastive contextually bound expression (value $c$ in attribute $t f a$ )").

The rhematizer signals that the contrastive contextually non-bound expression belongs to the contrastive topic. The scope of the rhematizer usually includes just this expression, possibly its modifications (i.e. its subtree).

- non-contrastive contextually bound expressions (nodes representing such expressions are assigned the $t f a$ value $t$; see Section 10.2.2.1, "Non-contrastive contextually bound expression (value $t$ in the attribute $t f a$ )").

When the rhematizer is followed by non-contrastive contextually bound expressions, the following cases arise:

- if the rhematizer is followed only by non-contrastive contextually bound expressions and then contextually non-bound expressions, it is probably the case of a non-contact position of the rhematizer: the rhematizer signals the focus (contrastive topic) and its scope begins at the first contextually non-bound (contrastive contextually bound) expression appearing to the right from it.

This case arises mainly in nominal groups. For more information see Section 10.6.4.2, "Rhematizers in nominal groups".

- if the rhematizer is followed by non-contrastive contextually bound expressions, it could be the case of a so-called second-instance sentence. In such cases is loses its rhematizing function, it is no more relevant for the topic-focus articulation of the sentence. Usually a whole construction comprising a rhematizer is repeated from the preceding text and the rematizer retains the scope from its first occurrence.
- no expression.

When the rhematizer is not followed by any expression in the surface structure of the sentence (the rhematizer is the last expression of the sentence), it is a special case where the rhematizer constitutes the focus proper.

For the scope of syntactic negation with the function of a rhematizer see Section 8.13.1, "Negating and affirmative expressions as rhematizers".

## Compare:

- Jenom.RHEM JIRKA to viděl. (=lit. Only George it.ACC saw.)
$=$ Neviděl to nikdo jiný než Jirka. (=No one else than George saw it.)
The scope of the rhematizer is constituted by the Actor Jirka (=George). The node representing the rhematizer is placed as the closest left sister of the Actor Jirka. Cf. Fig. 10.37.
- Odmítl jsem jenom.RHEM sedět. (=lit. (I) refused_only to_sit.)
= Hodlal jsem dělat cokoli jiného, než sedět. (=I intended to do anything else than sitting.)
The scope of the rhematizer is constituted by the Patient sedět (=to_sit). The node representing the rhematizer is placed as the closest left sister of the Patient sedět (=to_sit) . Cf. Fig. 10.38.
- Udělali by to pouze.RHEM , kdybych se stavbou souhlasil. (=lit. (They) would do it.Acc only if with (the) construction (I) agreed.)
$=$ Neudělali by to v žádném jiném připadě, než kdybych souhlasil. (=They would not do it in any other case except if I agreed.)

The scope of the rhematizer is constituted by the dependent clause kdybych se stavbou souhlasil (=lit. if with (the) construction (I) agreed). The node representing the rhematizer is placed as the closest left sister (in the underlying word order) of the node representing the expression that is in its scope, i.e. as the closest left sister of the node for the verb souhlasit (=to_agree). Cf. Fig. 10.39.

- Udělali by to, kdybych souhlasil pouze.RHEM se stavbou. (=lit. (They) would do it.Acc if(I) agreed only with (the) construction.)
$=$ Udělali by to, kdybych nesouhlasil s ničím jiným než se stavbou. (=They would do it if I did not agree with anything else than the construction.)

The scope of the rhematizer is constituted by the Patient of the verb souhlasit (=to_agree). The node representing the rhematizer is placed as the closest left sister of the Patient node se stavbou (=lit. with (the) construction). Cf. Fig. 10.40.

- Chtěl bych jedině.RHEM auto na dálkové ovládání. (=lit. (I) would like only (a) car with remote control.)
= Nechci nic jiného než auto na dálkové ovládání. (=I do not want anything else than a car with remote control.)

The scope of the rhematizer comprises the Patient of the verb auto na dálkové ovládání (=lit. (a) car with remote control). The node representing the rhematizer is placed as the closest left sister of the node representing the expression that is in its scope, i.e. as the closest left sister of the node for the noun auto (=car) . Cf. Fig. 10.41.

- Chtěl bych auto jedině.RHEM na dálkové ovládání. (=lit. (I) would like (a) car only with remote control.)
= Nechci jiné auto než na dálkové ovládání. (=I do not want another car than a car with remote control.)

The scope of the rhematizer is constituted only by the modification na dálkové ovládání (=lit. with remote control). The node representing the rhematizer is placed as the closest left sister of the first node representing the expression that is in its scope, i.e. as the closest left sister of the node for the noun ovládání (=control). Cf. Fig. 10.42.

- Karel výklad přimo.RHEM hltal. (=lit. Charles (the) exposition.Acc just devoured.)

The scope of the rhematizer is constituted by the governing predicate hltat (to_devour). The node representing the rhematizer is placed as the closest left daughter of the node representing the governing predicate. Cf. Fig. 10.43.

- Karel především.RHEM chtěl, abych odešel. (=lit. Charles primarily wanted _ (me) to_leave)

The scope of the rhematizer is comprises both the governing predicate and the whole subordinate clause chtěl, abych odešel (=lit. (he) wanted _ (me) to_leave.) The node representing the rhematizer is placed as the closest left daughter of the node representing the governing predicate chtit (=to_want). Cf. Fig. 10.44.

Figure 10.37. Position of rhematizers in tectogrammatical trees


Jenom Jirka to viděl. (=lit. Only George it.ACC saw.)

Figure 10.38. Position of rhematizers in tectogrammatical trees


Odmitl jsem jenom sedět. (=lit. (I) refused _only to_sit.)
Figure 10.39. Position of rhematizers in tectogrammatical trees


Udělali by to pouze, kdybych se stavbou souhlasil. (=lit. (They) would do it.ACC only if with (the) construction (I) agreed.)

Figure 10.40. Position of rhematizers in tectogrammatical trees


Udělali by to, kdybych souhlasil pouze se stavbou. (=lit. (They) would do it.ACC if (I) agreed only with (the) construction.)

Figure 10.41. Position of rhematizers in tectogrammatical trees


Chtèl bych jedině auto na dálkové ovládání. (=lit. (I) would like only (a) car with remote control.)

Figure 10.42. Position of rhematizers in tectogrammatical trees


Chtēl bych auto jedině na dálkové ovládáni. (=lit. (I) would like (a) car only with remote control.)
Figure 10.43. Position of rhematizers in tectogrammatical trees


Karel výklad přimo hltal. (=lit. Charles (the) exposition.ACC just devoured.)

Figure 10.44. Position of rhematizers in tectogrammatical trees


Karel předevšim chtěl, abych odešel. (=lit. Charles primarily wanted _ (me) to_leave)

### 10.6.3. Contextual boundness of rhematizers

This section contains guidelines for assigning the $t$ fa values (see Section 10.2, "Contextual boundness") to nodes representing rhematizers. For rhematizers, the value of the attribute $t$ fa is determined according to the function of the rhematizer, i.e. according to which topic-focus articulation category (topic or focus) it signals. The value of the attribute $t$ fa is therefore closely related to the position of a rhematizer in the tectogrammatical tree.

A node representing a rhematizer can be assigned either the $t f a$ value $t$ or $f$. A rhematizer cannot be assigned the value c .

We suppose the following possible $t$ fa values and positions for rhematizers in tectogrammatical trees:

- if the rhematizer signals the focus and the governing predicate is not in its scope (i.e. the rhematizer is placed as the closest left sister of the first node representing the expression in the scope of the rhematizer), the node representing the rhematizer is assigned the value $f$. Compare:
- Petra si umyla také.RHEM $[\mathrm{t} \mathrm{f} \mathrm{a}=\mathrm{f}]$ boty $[\mathrm{t} \mathrm{f} \mathrm{a}=\mathrm{f}]$ (=lit. Petra_washed also (her) shoes.)

The rhematizer signals the contextually non-bound modification boty (=shoes). The node representing the rhematizer is placed as the closest left sister of the node representing the noun boty (=shoes) and is assigned the tfa value f. Cf. Fig. 10.45.

- Petra si umyla také.RHEM $[\mathrm{tfa} \mathrm{f}]$ červené $[\mathrm{tfa} \mathrm{f}]$ boty $[\mathrm{tfa}=\mathrm{t}]$ (=lit. Petra_ washed also (her) red shoes.)

The rhematizer signals the contextually non-bound modification červený (=red). The node representing the rhematizer is placed as the closest left sister of the node representing the adjective červený (=red) and is assigned the tfa value f. Cf. Fig. 10.46.

- if the rhematizer signals the focus and the governing predicate is in its scope (i.e. the rhematizer is placed as the closest left daughter of the node representing the predicate), the node representing the rhematizer is assigned the value $f$.

NB! In this case a contextually non-bound node (i.e. the rhematizer) is exceptionally placed to the left from its governing node (see also Section 10.3.1, "Basic guidelines for the ordering of nodes in a tectogrammatical tree").

Compare:
 shoes.)

The rhematizer signals the contextually non-bound part umyla si boty (=lit. (she) washed (her) shoes). The node representing the rhematizer is placed as the closest left daughter of the node representing the predicate umýt si (=to_wash) and is assigned the tfa value f. Cf. Fig. 10.47 .

- if the rhematizer signals a contrastive topic (i.e. it is placed as the closest left sister of the node representing a contrastive contextually bound modification), the node representing the rhematizer is assigned the $t$ fa value $t$. Compare:
- Také.RHEM [ $\mathrm{tfa}=\mathrm{t}]$ Petra $[\mathrm{tfa}=\mathrm{c}]$ si umyla boty. (=lit. Also Petra _ washed (her) shoes.)

The rhematizer signals the contrastive contextually bound modification Petra. The node representing the rhematizer is placed as the closest left sister of the node representing the noun Petra and is assigned the $t f a$ value $t$. Cf. Fig. 10.48.
!!! It turns out that assigning the value $t$ to a node representing a rhematizer signaling a contrastive contextually bound modification (and not the value c) will have to be reconsidered.

- if the scope of the rhematizer comprises non-contrastive contextually bound expressions and it does not include the governing predicate (i.e. the rhematizer is placed as the closest left sister of the first node representing the expression in the scope of the rhematizer), the node representing the rhematizer is assigned the $t f a$ value $t$. Compare:
- (Karel si umyl také boty. Spletl ses.) PETRA si umyla také.RHEM [ $\mathrm{t} \mathrm{fa} \mathrm{a}=\mathrm{t}$ ] boty [ $\mathrm{tfa} \mathrm{f}=\mathrm{t}$ ] (=lit. (Charles _ washed also (his) shoes. (You) are_wrong _.) Petra _ washed (her) shoes.)

Both the rhematizer and the expression in its scope (the noun boty (=shoes) ) are non-contrastive contextually bound. The node representing the rhematizer is placed as the closest left sister of the node representing the node boty (=shoes) and is assigned the $t$ fa value t. Cf. Fig. 10.49.

- if the scope of the rhematizer comprises a non-contrastive contextually bound governing predicate (i.e. the rhematizer is placed as the closest left daughter of the first node representing the predicate), the node representing the rhematizer is assigned the tfa value $t$.

This applies to constructions with a negated non-contrastive contextually bound verb (which may be e.g. repeated from the preceding context). If a negated verb is non-contrastive contextually bound, so is its negation represented as a rhematizer (see Section 10.6.1, "Expressions with the function of a rhematizer"). Compare:

- (Petr neodešel domů.) Hanka neodešla do školy. (=lit. (Peter did_not_go home.) Hanka did_not_go to school.)

The negated predicate is non-contrastive contextually bound. The node representing the rhematizer is assigned the $t f a$ value $t$. The node for the syntactic negation ( $t$ _lemma=\#Neg) is placed as the closest left daughter of the node representing the governing predicate and is likewise assigned the $t$ fa value $t$.

- if the rhematizer constitutes the focus proper (see Section 10.3.1.1, "Focus proper"), the node representing the rhematizer is assigned the $t f a$ value $f$ and is placed on the rightmost path leading from the effective root of the tectogrammatical tree. All the other expressions need to be contextually bound.
- Petra si umyla boty také.RHEM [tfa=f] (=lit. Petra _ washed (her) shoes also.)

The rhematizer constitutes the focus proper. The node representing the rhematizer is assigned the $t f a$ value $f$ and is placed rightmost in the textogrammatical tree. Cf. Fig. 10.50.

## Figure 10.45. Contextual boundness of rhematizers



Petra si umyla také boty. (=lit. Petra _ washed also (her) shoes.)
Figure 10.46. Contextual boundness of rhematizers


Petra si umyla také červené boty. (=lit. Petra_ washed also (her) red shoes.)

Figure 10.47. Contextual boundness of rhematizers


Petra si také umyla boty. (=lit. Petra _ also washed (her) shoes.)
Figure 10.48. Contextual boundness of rhematizers


Také Petra si umyla boty. (=lit. Also Petra _ washed (her) shoes.)

Figure 10.49. Contextual boundness of rhematizers

(Karel si umyl také boty. Spletl ses.) Petra si umyla také boty. (=lit. (Charles _ washed also (his) shoes. (You) are_wrong _.) Petra _ washed (her) shoes.)

## Figure 10.50. Contextual boundness of rhematizers



Petra si umyla boty také. (=lit. Petra _ washed (her) shoes also.)

### 10.6.4. Specific constructions with rhematizers

The annotation of constructions with rhematizers generally follows the basic guidelines (see Section 10.6.2, "Basic guidelines regarding the position of rhematizers in tectogrammatical trees" and Section 10.6.3, "Contextual boundness of rhematizers"). Here are some additional instructions for certain specific cases. These specific constructions include:

- rhematizers in paratactic structures (see Section 10.6.4.1, "Rhematizers in paratactic structures"),
- rhematizers in nominal groups (noun phrases; see Section 10.6.4.2, "Rhematizers in nominal groups"),

NB! There are also specific guidelines for constructions with negative and affirmative rhematizers, which are described in Section 8.13.1, "Negating and affirmative expressions as rhematizers".

### 10.6.4.1. Rhematizers in paratactic structures

The scope of a rhematizer can comprise a whole paratactic structure (which is either a clausal connection or a connection of sentence parts).

If the scope of the rhematizer comprises the whole paratactic structure, the node representing the rhematizer is placed as the closest left sister of the root of the paratactic structure. Compare:

- Byli tam jenom.RHEM Petr a Pavel. (=lit. Were there only Peter and Paul.)

The scope of the rhematizer comprises the whole paratactic structure Petr a Pavel (=Peter and Paul). The node representing the rhematizer is placed as the closest left sister of the root of the paratactic structure, i.e. the node for the connective $a(=a n d$ ). Cf. Fig. 10.51.

- Přijde jen.RHEM tehdy, když mu zavolají nebo mu napiší. (=lit. (He/She) will_come only _ when to_him/her (they) will_call or to_him/her (they) will_write.)

The scope of the rhematizer comprises the whole paratactic structure $k d y z$ z $m u$ zavolají nebo $m u$ napiší (=lit. when to_him/her (they) will_call or to_him/her (they) will_write.). The node representing the rhematizer is placed as the closest left sister of the root of the paratactic structure, i.e. the node for the connective nebo ( $=o r$ ) .

Figure 10.51. Rhematizers in paratactic structures


Byli tam jenom Petr a Pavel. (=lit. Were there only Peter and Paul.)
For more information on homonymy between rhematizers and conjunction modifiers see Section 10.6.1.3, "Homonymy: rhematizer - conjunction modifier".

### 10.6.4.2. Rhematizers in nominal groups

In nominal groups, rhematizers can appear in non-contact positions with respect to the contextually non-bound expressions (parts of the sentence) in their scope because attributes, especially the genitive onec, stand usually in contact positions with their governing nodes; inserting a rhematizer is possible only in some marked cases. Compare:

Chtěl jsem sklenici jen vody. (=lit. (I) wanted _ (a) glass only of_water.)

Chtěl jsem červené jen auto. (=lit. (I) wanted _red only (a) car.)
Therefore, contextually bound expressions can appear between a rhematizer and contextually nonbound expressions. In yhe tectogrammatical tree, the node representing a rhematizer is always the closest left sister of the first node representing the expression in its scope, even if the rhematizer is in a non-contact position with the expression at the surface structure of the sentence. Compare:

- (Nerozšlápl jsem sklenici.) Rozšlápl jsem jen.RHEM[tfa=f] brýle [ $\mathrm{t} \mathrm{f} \mathrm{a}=\mathrm{f}$ ] náměstka [ $\mathrm{t} \mathrm{f} a=\mathrm{f}]$ ministra $[\mathrm{tfa} \mathrm{f}]$ vnitra $[\mathrm{tfa} \mathrm{f} \mathrm{f}]$ (=lit. ((I) did_not_tread_on_(a)drinking_glass.) (I) trod_on _ only (the) glasses of_deputy minister of_interior.)

The scope of the rhematizer comprises the whole constituent brýle náméstka ministra vnitra (=lit. (the) glasses of_deputy minister of_interior.). The node representing the rhematizer is placed as the closest left sister of the first node representing the expression in its scope, i.e. as the closest left sister of the node for the noun brýle (=glasses). Cf. Fig. 10.52.

- (Nerozšlápl jsem brýle náměstka ministra spravedlnosti.) Rozšlápl jsem jen.RHEM [tfa=f] brýle [ $\mathrm{tfa}=\mathrm{t}$ ] náméstka [ $\mathrm{ffa}=\mathrm{t}]$ ministra [ tfa f ] vnitra [ $\mathrm{ffa}=\mathrm{f}]$ (=lit. ( $(\mathrm{I})$ did_not_tread_on _ (the) glasses of_deputy minister of_justice.) (I) trod_on_only (the) glasses of_deputy minister of_interior.)

The scope of the rhematizer comprises only the attribute vnitra (=of_interior). The node representing the rhematizer is placed as the closest left sister of the first node representing the expression in its scope, i.e. as the closest left sister of the node for the noun vnitro (=interior). Cf. Fig. 10.53.

- (Nerozšlápl jsem brýle prezidenta.) Rozšlápl jsem jen.RHEM [ $\mathrm{tfa}=\mathrm{f}$ ] brýle [ $\mathrm{f} \mathrm{f} \mathrm{a}=\mathrm{t}$ ] náměstka $[\mathrm{tfa}=\mathrm{f}]$ ministra $[\mathrm{tfa}=\mathrm{f}]$ vnitra $[\mathrm{tfa}=\mathrm{f}]$ (=lit. ((I) did_not_tread_on_(the) glasses of_president.) (I) trod_on_only (the) glasses of_deputy minister of_interior.)

The scope of the rhematizer comprises the attribute náměstka ministra vnitra ( $=o f$ _deputy minister of_interior) . The node representing the rhematizer is placed as the closest left sister of the first node representing the expression in its scope, i.e. as the closest left sister of the node for the noun náméstek (=deputy). Cf. Fig. 10.54.

- (Nerozšlápl jsem brýle ministra vnitra.) Rozšlápl jsem jen.RHEM [tfa=f] brýle [ $\mathrm{tf} \mathrm{f}=\mathrm{t}$ ] náměstka $[\mathrm{tfa}=\mathrm{f}]$ ministra $[\mathrm{tfa}=\mathrm{t}]$ vnitra $[\mathrm{tfa} \mathrm{t}]$ (=lit. ( $(\mathrm{I})$ did_not_tread_on_(the) glasses of_minister of_interior.) (I) trod_on_only (the) glasses of_deputy minister of_interior.)

The scope of the rhematizer comprises the attribute náměstka (=of_deputy). It is unclear whether the rhematizer has scope also over any other dependent modifications (the assumption that contextual boundness of a node excludes dependent nodes from the scope of a a rhematizer is still to be verified). The node representing the rhematizer is placed as the closest left sister of the first node representing the expression in its scope, i.e. as the closest left sister of the node for the noun náméstek (=deputy). Cf. Fig. 10.55.

Figure 10.52. Rhematizers in nominal groups

(Nerozšlápl jsem sklenici.) Rozšlápl jsem jen brýle náměstka ministra vnitra. (=lit. ((I) did_not_tread_on _ (a) drinking_glass.) (I) trod_on _only (the) glasses of_deputy minister of_interior.)

Figure 10.53. Rhematizers in nominal groups

(Nerozšlápl jsem brýle náměstka ministra spravedlnosti.) Rozšlápl jsem jen brýle náměstka ministra vnitra. (=lit. ((I) did_not_tread_on _ (the) glasses of_deputy minister of_justice.) (I) trod_on_only (the) glasses of_deputy minister of_interior.)

Figure 10.54. Rhematizers in nominal groups

(Nerozšlápl jsem brýle prezidenta.) Rozšlápl jsem jen brýle náměstka ministra vnitra. (=lit. ((I) did_not_tread_on _ (the) glasses of_president.) (I) trod_on _only (the) glasses of_deputy minister of_interior.)

Figure 10.55. Rhematizers in nominal groups

(Nerozšlápl jsem brýle ministra vnitra.) Rozšlápl jsem jen brýle náměstka ministra vnitra. (=lit. ((I) did_not_tread_on _ (the) glasses of_minister of_interior.) (I) trod_on_only (the) glasses of_deputy minister of_interior.)

## Chapter 11. Data format

### 11.1. PDT 2.0 data format

The basic data format of PDT 2.0 is PML ("Prague Markup Language"), which is based on XML. Formerly two other formats were used to analyze and save PDT data. The format FS ("Feature Structure") was developed for the programme Netgraph (or rather for its predecesssor, i.e. programme Graph). The basic format of PDT 1.0 was CSTS ("Czech Sentence Tree Structure"), based on SGML. Nowadays, this format is used only as a work format for older NLP tools (e.g. parsery and tagery).

For details on individual formats see Prague Dependency Treebank 2.0, CDROM, doc/pdt-guide/ and doc/data-formats/.

For more on the programme Netgraph see Prague Dependency Treebank 2.0, CDROM, doc/tools/netgraph/.

### 11.2. A node and types of attribute values

If we ignore the data representation of a tree structure, the node of the tectogrammatical tree in PDT 2.0 is technically represented by a structure with a fixed set of attributes in which an attribute is a pair consisiting of a name and a value, and which is uniquely determined by its name within the structure. Attributes are further divided into obligatory and optional. An optional attribute does not have to be present in the structure, which can also be expressed by an empty value of the attribute. An obligatory attribute is always present in the structure and its value must not be empty. The data representation in PDT 2.0 distinguishes between attribute values of the following types:

Atomic values Atomic attribute value is represented by a literal string. The type of an atomic attribute value differentiates semantically between an identifier, reference (see Section 11.3, "References in PDT 2.0"), enumerated type, constant, Boolean type, integer type, and string type. An identifier is a string which conforms to the NCName production of the W3C specification Namespaces in XML published on http://www.w3.org/TR/1999/REC-xml-names-19990114/\#NT-NCName (PDT 2.0 uses only strings of letters of English alphabet, numbers, a dash, a colon or a hyphen, and strings beginning with a letter). The attribute value of enumerated type is represented by a string constituted by a list of the particular type. A constant is a special type of enumerated type that allows only one possible value. A Boolean type is an enumerated type with values 1 (true) or 0 (false). The integer type is a non-negative whole number in the decimal system.

Lists A value of a list type aggregates one or more values of a certain attribute type, This type may be arbitrary attribute type except for the list type (i.e. lists cannot be nested). Lists are further divided into ordered and unordered lists.

Alternatives Alternative type is used to allow aggregation one or more alternative (parallel) values of a particular type. Alternative values are arranged in an unordered list in which each value should not occur more than once.
!!! In the annotated data each attribute which allows alternatives is always assigned only one value of a particular type.

Structure The attribute value is represented by a structure (as described in the first paragraph) with a fixed set of attributes and their types.

### 11.3. References in PDT 2.0

Three types of references occur in the annotation of PDT 2.0: references within one layer (e.g. between nodes of a tectogrammatical tree), references to objects (nodes or elements) of lower layers, and references to other sources (valency lexicon). All these references are realized in the same manner as described below.

The referred object is assigned an identifying attribute the value of which functions as an unique identifier of the object within PDT 2.0. The reference itself is realized by an attribute (atomic attribute of the type reference) containing the unique identifier of the referred object. If the referred object does not belong to the same file as the referring object, the identifier reference is prefixed with a prefix symbolic\#, in which symbolic is a symbolic name associated with the filename containing the referred object. The association between symbolic names and filenames is to be found in the header of the referring file. This mapping is unambiguous and file-specific.

By a convention, in PDT 2.0, the names of all attributes containing references or lists of references bear the suffix .rf. Attributes carrying unique identifiers are usually named id (however, there are exceptions e.g. in the PDT Valency Lexicon vallex.xml the identifiers are contained in attributes word_ID and frame_ID for historical reasons).

### 11.4. Attributes of nodes in a tectogrammatical tree

Table 11.1. Attributes of the technical root node of a tectogrammatical tree
$\left.\begin{array}{|l|l|l|}\hline \text { Attribute } & \begin{array}{l}\text { Obligat- } \\ \text { ory }\end{array} & \text { Value } \\ \hline \text { atree.rf } & \text { NO } & \begin{array}{l}\text { Permissible values: PML reference. } \\ \text { This attribute links the tectogrammatical leayer with the } \\ \text { analytical layer through a reference to an analytical tree. See } \\ \text { Section 2.1, "Relation between the tectogrammatical level } \\ \text { and the lower levels". }\end{array} \\ \hline \text { deepord } & \text { NO } & \begin{array}{l}\text { Permissible values: a non-negative whole number. } \\ \text { This attribute determines the position of a node in terms of } \\ \text { horizontal ordering of the nodes within a tree. A root node } \\ \text { is always assigned value } 0 \text { and unlike other nodes it bears } \\ \text { no linguistically conditioned information. }\end{array} \\ \hline \text { id } & \text { YES } & \begin{array}{l}\text { Permissible values: identifier. } \\ \text { The value is represented by a unique tree identifier within } \\ \text { PDT 2.0. }\end{array} \\ \hline \text { nodetype } & \text { NO } & \begin{array}{l}\text { Permissible values: constant: root. } \\ \text { This attribute is present at the root node of a tree only for the }\end{array} \\ \text { sake of the user } \square \text { ?s comfort. Its value is always root, which } \\ \text { distinguishes the root node of a tectogrammatical tree from } \\ \text { other nodes within the tree. }\end{array}\right\}$

Table 11.2. Attributes of other nodes

| Attribute | Obligatory | Value |
| :---: | :---: | :---: |
| a | NO | The value is represented by a structure with attributeslex.rf, aux.rf. <br> This attribute links nodes of the tectogrammatical layer with items on lower layers. It does not contain any identifier, or it contains one or several identifiers of the analytical layer; these identifiers influence the attributes $t$ _lemma, functor, subfunctor, val_frame.rf, or gram. This attribute consists of two parts: lex.rf and aux.rf. See Section 2.1, "Relation between the tectogrammatical level and the lower levels". |
| a/aux.rf | NO | Permissible values: a list each element of which is a PML reference. <br> This attribute contains a list of references to nodes of the analytical layer. These nodes frequently carry grammatical words (i.e. prepositions, subordinating conjuctions, auxiliary verbs, deictic words etc.) and together with the node referred to in the attribute a/lex.rf they constitute one autosemantic expression. A value that can possibly appear in the attribute a/lex.rf is not recorded in the list a/aux.rf. See Section 2.1, "Relation between the tectogrammatical level and the lower levels". |
| a/lex.rf | NO | Permissible values: PML reference. <br> This attribute refers to a node on the analytical layer. It is usually the node from which the particular tectogrammatical tree acquired its lexical meaning. See Section 2.1, "Relation between the tectogrammatical level and the lower levels". |
| compl.rf | NO | Permissible values: PML reference. <br> This attribute is used to record second dependency of predicative complements. It occurs only by the nodes with functor COMPL. It contains an identifier of the node of a tectogrammatical tree which the particular node also depends on (apart from the dependency expressed by an edge). See Section 6.10, "Predicative complement (dual dependency)". |
| coref_gram.rf | NO | Permissible values: a list each element of which is a PML reference. <br> This attribute is used to record grammatical coreference. It contains the identifier of the node of (usually the same) tectogrammatical tree that the particular node grammatically corefers to. See Section 9.1, "Representing coreference in the tectogrammatical trees". |


| Attribute | Obligatory | Value |
| :---: | :---: | :---: |
| coref_special | NO | Permissible values: segm , exoph. <br> This attribute is used to mark special types of textual coreference in which the coreferred element is not represented by a node or a subtree of a tectogrammatical tree. The value segm indicates that the coreferred element is a segment, a larger section of a text. The value exoph indicates exophoric reference, i.e. coreference in which the coreferred element is represented by a extratextual situation which is not closer specified. See Section 9.1, "Representing coreference in the tectogrammatical trees". |
| coref_text.rf | NO | Permissible values: a list each element of which is a PML reference. <br> The attribute is used to record textual coreference. It contains the identifier of the node of a tectogrammatical tree which represents the explicit coreferred element of the particular node. See Section 9.1, "Representing coreference in the tectogrammatical trees". |
| deepord | YES | Permissible values: a non-negative whole number. <br> This attribute numbers nodes in a tectogrammatical tree and it provides them with non-negative whole numbers in the sequence which reflects the deep structure word order. In the sequence given by the attributedeepord nodes of a tree are recorded in graphic applications (from left to right in the direction of increasing values of the attribute deepord). See Section 10.3, "Communicative dynamism". |
| functor | YES | Permissible values: a value from the following list: ACT , AUTH, PAT, ADDR, EFF, ORIG, ACMP, ADVS, AIM, APP, APPS, ATT, BEN, CAUS, CNCS, CM, COMPL, CONJ, COND, CONFR, CONTRA, CONTRD, CPHR, CPR, CRIT, CSQ, DENOM, DIFF, DIR1, DIR2, DIR3, DISJ, DPHR, EXT, FPHR, GRAD, HER, ID, INTF, INTT, LOC, MANN, MAT, MEANS, MOD, OPER, PAR, PARTL, PREC, PRED, REAS, REG, RESL, RESTR, RHEM, RSTR, SUBS, TFHL, TFRWH, THL, THO, TOWH, TPAR, TSIN, TTILL, TWHEN, VOCAT (the attribute allows alternatives). <br> The value is represented by a functor of the node. See Chapter 7, Functors and subfunctors. |
| gram | NO | The value is represented by a structure with attributes sempos, gender, number, degcmp, verbmod, deontmod, tense, aspect, resultative, dispmod, iterativeness, indeftype, person, numertype, politeness, negation. <br> This structure occurs only with complex nodes, i.e. nodes that have the attribute value nodetype complex. <br> SeeChapter 5, Complex nodes and grammatemes. |
| gram/aspect | NO | Permissible values: proc, cpl, nr. <br> Gender grammateme - see Section 5.5.12, "The aspect grammateme" |


| Attribute | Obligatory | Value |
| :---: | :---: | :---: |
| gram/degcmp | NO | Permissible values: pos, comp, acomp, sup, nr. <br> Grade grammateme - see Section 5.5.8, "The degcmp grammateme (degree)". |
| gram/deontmod | NO | Permissible values: deb, hrt, vol, poss, perm, fac, decl, nr. <br> Deontic modality grammateme - see Section 5.5.10, "The deontmod grammateme (deontic modality)" |
| gram/dispmod | NO | Permissible values: disp1, disp0, nr, nil. <br> Dispositional modality grammateme - see Section 5.5.11, "The dispmod grammateme (dispositional modality)" |
| gram/gender | NO | Permissible values: anim, inan, fem, neut, inher, nr. <br> Gender grammateme - see Section 5.5.2, "The gender grammateme". |
| gram/indeftype | NO | Permissible values: relat, indef1, indef2, indef3, indef4, indef5, indef6, inter, negat, total1, total2, nr. <br> The type of indefiniteness grammateme- see Section 5.5.6, "The indeftype grammateme". |
| gram/iterativeness | NO | Permissible values: it1, it0, nr. <br> Iterativeness grammateme - see Section 5.5.15, "The iterativeness grammateme" |
| gram/negation | NO | Permissible values: neg0, neg1, nr. <br> Negation grammateme - see Section 5.5.7, "The negation grammateme". |
| gram/number | NO | Permissible values: sg, pl, inher, nr. <br> Number grammateme - see Section 5.5.1, "The number grammateme". |
| gram/numertype | NO | Permissible values: basic, set, kind, ord, frac, nr. <br> The type of a numeral grammateme - see Section 5.5.5, "The numertype grammateme". |
| gram/person | NO | Permissible values: 1, 2, 3, inher, nr. <br> Person grammateme - see Section 5.5.3, "The person grammateme". |
| gram/politeness | NO | Permissible values: polite, basic, inher, nr. <br> Politeness - see Section 5.5.4, "The politeness grammateme". |
| gram/resultative | NO | Permissible values: res1, res $0, \mathrm{nr}$. <br> Resultativeness grammateme - see Section 5.5.14, "The resultative grammateme (resultative aspect)" |


| Attribute | Obligatory | Value |
| :---: | :---: | :---: |
| gram/sempos | YES | Permissible values: n . denot, n . denot. neg, n.pron.def.demon, n.pron.def.pers, n.pron.indef, n.quant.def, adj.denot, adj.pron.def.demon, adj.pron.indef, adj.quant.def, adj.quant.indef, <br> adj. quant.grad, adv. denot.grad.nneg, adv.denot.ngrad.nneg, adv.denot.grad.neg, adv. denot.ngrad.neg, adv.pron.def, adv.pron.indef, v. <br> The attribute sempos carries the information on the subgroup of which semantic part of speech a complex node belongs to. See Section 5.3.1, "The sempos attribute". |
| gram/tense | NO | Permissible values: sim, ant, post, nr, nil. <br> Tense grammateme - see Section 5.5.13, "The tense grammateme" |
| gram/verbmod | NO | Permissible values: ind, imp, cdn, nr, nil. <br> Verbal modality grammateme - see Section 5.5.9, "The verbmod grammateme (verbal modality)" |
| id | YES | Permisisble values: identifier. <br> The value is represented by a unique identifier of a node within PDT 2.0. |
| is_dsp_root | NO | Permissible values: 0,1 . <br> The value 1 occurs with the nodes which represent a root node of a subtree that records a direct speech (even in the case in which the direct speech is not marked in graphics within the text). If no value is filled, the value 0 is assumed. See Section 8.3, "Direct speech". |
| is_generated | NO | Permissible values: 0, 1 . <br> The value 1 indicates newly established or copied nodes. If no value is filled, the value 0 is assumed. See Section 6.12, "Ellipsis". |


| Attribute | Obligat-- <br> ory | Value <br> is_member |
| :--- | :--- | :--- |
|  | NO | Permissible values: 0, 1. <br> The attribute is meaningful only for direct daughter nodes <br> of paratactic structures (nodetype=coap). No attribute <br> value is filled for other nodes. The attribute is assigned value <br> 1 by direct daughter nodes of the paratactic structure root <br> nodes which represent direct elements of the paratactic <br> structure. Nodes (except for nodes with functor CM and <br> RHEM) which are direct daughter nodes of paratactic structure <br> root nodes and which have no is_member=1, represent a <br> shared modifier of terminal elements of the particular para- <br> tactic structure. Nodes with functor CM (Section 7.12.4, <br> "Functor for conjunction modifiers (CM)") have no attribute <br> value is member filled and they are considered a part of <br> a coordinating connective. Nodes with functor RHEM (Sec- |
| tion 7.7.5, "RHEM") are recorded according to special rules |  |  |
| of hanging nodes(Section 10.6.2,"Basic guidelines regarding |  |  |
| the position of rhematizers in tectogrammatical trees") and |  |  |
| the description stated ablove does not apply to them. If no |  |  |
| attribute value is filled, the value0 is assumed. See Sec- |  |  |
| tion 6.6.1, "Representing parataxis in a tectogrammatical |  |  |
| tree". |  |  |


| Attribute | Obligatory | Value |
| :---: | :---: | :---: |
| nodetype | YES | Permissible values: atom, coap, complex, dphr, fphr,list, qcomplex.The attribute value nodetype indicates a type of a node.atomcoapcomplemic node paratactic structure root node <br> dphr dependent part of an idiomatic expression <br> fphr a part of a foreign-language expression <br> list root node of a list structure <br> qcomplex quasicomplex node |
| quot | NO | Permissible values: a list each element of which is a structure with attributes type and set_id. <br> The attribute signals nodes which represent parts of a text which appear"within quoation marks". Each part of a text within quoation marks is assigned a unique identifier which is further used in the following way: A set of nodes which represent a part of a text within quotation marks is marked by its each element having an element with set_id (corresponding to the identifier of the part within quotation marks) among the values of attribute quot. Therefore one node can belong to no, to one or to more sets which are marked in this way (embedded quotation marks). See Section 8.19.1, "Text within quotation marks". |
| quot/set_id | YES | Permissible values: arbitrary string. <br> A string attribute value is used to identify a set of nodes which represent a part of a text within qoatation marks. |
| quot/type | YES | Permissible values: citation, dsp, meta, other, title. <br> The attribute determines the type of use of quotation marks. The type dsp indicates a direct speech (formally independent citations), citation indicates a formally dependent citation, meta indicates meta-use, title indicates a proper name and other indicates another type of use of quotation marks. |
| sentmod | NO | Permissible values: enunc, excl, desid, imper, inter. <br> Sentence modality grammateme - see Section 5.7, "The sentmod attribute". |


| Attribute | Obligat- <br> ory | Value |
| :--- | :--- | :--- |
| subfunctor | NO <br> Permissible values: above, abstr, across, after, <br> agst, along, approx, around, basic, before, <br> begin, behind, below, betw, circ, elsew, end, <br> ext, flow, front, incl, in, less, mid, more, near, <br> opp, target, than, to, wout, wrt, nr. <br> The value is represented by the so-called subfunctor which <br> closer specifies the meaning of the assigned functor. See <br> Section 7.13.1, "Subfunctors". |  |
| t_lemma | YES | Permissible values: arbitrary string. <br> The value is represented by a t-lemma. See Chapter 4, Tecto- <br> grammatical lemma (t-lemma). |
| tfa | NO | Permissible values: t, f, c. <br> The attribute contains the annotation of context dependency. <br> The value $t$ occurs by the nodes which represent context <br> (non-contrastively) dependent expressions; the valuec occurs <br> by the nodes which represent context (contrastively) depend- <br> ent expressions and the value $f$ occurs by the nodes which <br> represent a context independent expression. If no attribute <br> value is filled, the node does not have any of the qualities <br> described above (typically nodes the attribute value of which <br> is nodet ype directly coap and fphr).See Section 10.2, <br> "Contextual boundness". |
| val_frame.rf |  | Permissible values: PML reference (the attribute allows al- <br> ternatives). <br> The attribute is used to refer to the valency lexicon. The value |
| is represented by the identifier of a valency frame which is |  |  |
| realized by the particular node (and its subtree). See Sec- |  |  |
| tion 6.2.2,"Valency frames and the way they are recorded |  |  |
| in the valency lexicon". |  |  |$|$

### 11.5. The notation of valency frames and its semantics

In the following text we describe the way of writing valency frames of the PDT Valency Lexicon. The notation applies to the manual, some papers, and other written materials (Section 11.5.1, "The notation of valency frames"). The second part of the text provides a brief description of the semantics accompanying the way valency frames are recorded in the PDT Valency Lexicon. (Section 11.5.2, "Semantics of a valency frame record").

For improved clarity, we use a formal grammar productions to describe the notation of a valency frame. Note that some other constraints on the annotation (e.g. a rule acc. to which a functor name may not occur more than once in a frame notation) are not recorded in the formal grammar but dealt with only in the text. In the grammar productions, non-terminals are marked with lower case; terminals are either literals described in quotes, or special terminals FORM representing a token consisiting of letters and numbers, CHAR representing any character, and LEMMA representing a string which is the main part of a morphological lemma of PDT. A more detailed structure of the terminalLEMMA is not dealt with in this text. All characters except for letters, numbers, and a hyphen which match the occurences of the terminals CHAR, LEMMA, and FORM in the productions must be in the notation of a frame introduced by a backslash character.

The notation of valency frames described herein can be further simplified by the use of abbreviations (see Section 11.5.5, "Abbreviated forms of realization records"). The notation of valency frames which contains abbreviations is valid if it conforms to the grammar discussed below after all abbreviations have been expanded.

### 11.5.1. The notation of valency frames

Every valency frame consists of one or more frame members. A member is either a frame element of the frame or an alternation of frame elements, where alternations are denoted by a $\mid$-separated list of alternating frame elements. An alternation is used if an element of a frame can be assigned various functors although all the cases form the same valency frame. A frame element is either obligatory, or optional. It constitutes of a functor and a description of possible realizations. The formal description of a frame element realization corresponds to a continuous section of an analytical tree the attributes of which are not filled completely, or more like (if we consider an entirely general case) permissible combinations of values of these attributes are defined by any logical expression in which these values appear. Since it is not necessary to utilize the general case in PDT, the possible realizations can be decomposed in the following ways:

- each frame element contains "its" realization independently of other frame elements, and this realization corresponds to a subtree dependant on the root node of of a subtree corresponding to the realization of the whole frame.
- to restrict the number of possible combinations of attribute values it is only required to maintain equality of some of these attribute values (or their parts), the so-called incomplete analytical tree, instead of a general logical expression.
- the lemma of the realized subtree root node is the same for all realizations of the frame, and it is recorded separately.
- in special cases it is possible to describe a realization which involves a governing node (a parent node) of the realized frame root node, and it also involves the realization which contains at least one subtree of this root node, however, no frame member corresponds to such subtrees.

```
frame := [ root_real_spec ] element_list
root_real_spec := '(' realizations ')'
element_list := element|element_alternation [ ' ' element_list ]
element_alternation := oblig_elem '|' oblig_elem [ '|' element_alternation ]
```

The notation of a frame begins with an optional list of permissible realizations of the subtree root node (e.g. some frames with functor DPHR need a governing verb to appear in a negative form) which is recorded in round brackets. It is followed by a space-separated sequence of records of individual members of the frame. A member is either a frame element or an alternations of frame elements. Alternations are recorded as $\mid$-separated sequences of records of frame elements it consists of). The record of each frame element contains a functor. Every functor (including functors of non-arguments and alternations) must occur in the record no more than once. Members of a frame are recorded in the following canonical order based on their functors: ACT, CPHR, DPHR, PAT, ADDR, ORIG, EFF, BEN, LOC, DIR1, DIR2, DIR3, TWHEN, TFRWH, TTILL, TOWH, TSIN, TFHL, MANN, MEANS, ACMP, EXT, INTT, MAT, APP, CRIT, REG.

```
element := oblig_elem | facult_elem
oblig_elem := elem_spec
facult_elem := '?' elem_spec
```

Frame elements are either optional or obligatory. The record of an optional element is preceded by a question mark.

```
elem_spec := functor '(' realizations ')'
functor := 'ACT' | 'PAT' | 'ADDR' | 'EFF' | 'ORIG' | 'ACMP'
    | 'AIM' | 'APP' | 'ATT' | 'AUTH' | 'BEN' | 'CAUS' | 'CNCS'
```

```
' COMPL' | 'CONTRD' | 'COND' | 'CPHR' | 'CPR' | 'CRIT'
'DES' | 'DIFF' | 'DIR1' | 'DIR2' | 'DIR3' | 'DPHR'
'EXT' | 'HER' | 'INTF' | apos;INTT' | 'LOC' | 'MANN' | 'MAT'
'MEANS' | 'MOD' | 'PAR' | 'PARTL' | 'REG' | ' RESL'
'RESTR' | 'RSTR' | 'SUBS' | 'TFHL' | 'TFRWH' | 'THL'
'THO' | 'TOWH' | 'TPAR' | 'TSIN' | 'TTILL' | 'TWHEN'
'TOWH' | 'VOCAT'
```

A member of a frame is denoted by its functor followed by a bracket containing a list of permissible realizations.
realizations := real [ ';' realizations ]
The denotations of individual permissible realizations are separated by a semi-colon.

```
real := '*' | '!' | '=' | node_specs
node_specs := [ '^' ] node_spec_list [ '&' ] [ node_spec_list ]
node_spec_list := node_spec [ ',' node_spec_list ]
node_spec := ( lemma_spec [ sep ] [ moreph ] | sep morph ) [ dependants ]
sep := '.' | ':'
dependants := '[' node_spec_list ']'
```

A realization can be recorded in several ways: by an asterisk * generally representing all typical realizations of the particular functor, by! (exclamation mark) indicating that the frame is not (can never be) realized on the surface structure, i.e. the fact that it corresponds to an empty set of annalytical nodes, = idicating a state (attribute is_state), or by a a list of comma-or-\& separated denotations of sibling nodes of the incomplete analytical tree. The nodes are written in the order in which they occur in the incomplete analytical tree. In this list, the \& separator can be used no more than once to separate nodes occuring to the left of their common parent node from their sibling nodes occuring on the right of the parent node. The \& separator may also occur at the start or end of the list to indicate that all nodes in the list follow or precede their parent node respectively.

A node is recorded in the form of a lemma specification and/or its morphological features. Both parts do not have to be present at the same time but at least one of them must be present.

Moreover, as a special case, the record of the first node in the list may be introduced by the symbol ^, in which case it describes the parent node of the node governing the subtrees corresponding to the frame members (i.e. the parent node of the verb/noun the frame relates to) instead of describing a node realizing the particular member of the frame.

A node specification starts with an optional specification of the lemma separated from the rest of the node specification by a dot or a colon (see below). The remaining part of the node specification describes morphological constraints. If no morphological requiremetns are given it is not necessary to use a separating symbol. In such a case a separating symbol is considered to be a colon. A dot separator is used to mark the analytical node that will govern all analytical subtrees corresponding to the realization of the nodes governed by the tectogrammatical node represented by the particular frame member the record belongs to. Consequently, only one record with a dot should appear among the records of all nodes contained in the description of one realization.

```
lemma_spec := LEMMA | '{' lemma_set '}' | '"' FORM '"'
lemma_set := LEMMA [ ',' lemma__set ] | LEMMA ',' '...'
```

A lemma specification is recorded either as a literal lemma, or as a comma-separated list of literal lemmas enclosed in curly brackets, or as a token within double apostrophes representing directly the literal surface form. The record which uses a literal form instead of a lemma is usually used only if a specific surface realization is impossible to be recorded in any other way (e.g. in case of a specific dialectic or colloquial expression). The list of lemmas in curly brackets can further end with a comma followed by three dots indicating that the list of permissible lemmas is incomplete and contains only
lemmas that have been collected so far (this is typical for frame elements with the functor CPHR). A token representing a literal lemma identifies uniquely an item in morphological lexicon (in fact, it consists of a basic form of a word, in some cases followed by a hyphen and a number to distinguish homonyms). The token representing a literal lemma (or a literal form) can include only alphanumerical symbols and a hyphen, all other symbols must be introduced by a backslash $\backslash$. A lemma of a backslash is therefore recorded as $\backslash \backslash$.

```
morph := [ neg ] [ pos ] [ gender ] [ number ] [ case ] [ deg ]
    [ agreement ] [ tag_spec ]
```

The record of morphological constraints consists of the record of specification of part of speech, gender, number, case, grade of adjectives, agreement, and none of these items is obligatory but one of them at least should always be present. If any of these items is not given, no constraint is imposed on the particular category (i.e. all attribute values are permissible on the corresponding node). If a lemma occurs in the record of a realization, a morphological constraint on the part of speech need not be given since it is determined unambiguously by the lemma.

```
neg := '~'
```

The $\sim$ character indicates a constraint on the presence of negation in a morphological tag.

```
pos := 'a' | 'd' | 'i' | 'n' | 'u' | 'j' | 'v' | 's' | 'f' | 'c'
```

A part of speech is written in lower case:
a adjective
d adverb
i particle
n noun
j subordinating conjunction
v verb
f verb in infinitive form
u possessive pronoun or adjective
s root node of a direct speech subtree
c root node of a subtree corresponding to an (asyndetic) dependent content clause (i.e. a clause introduced by a relative pronoun or adverb)
gender := 'F' | 'M' | 'I' | 'N'
Gender is written in upper case:
F feminine
M masculine animate
I masculine inanimate
N neuter
number := 'S' | 'P'
Number is written in upper case:

```
S singular
P plural
case := '1' | '2' | '3' | '4' | '5' | '6' | '7'
```

Case is recorded by its number.

```
deg := '@1' | '@2' | '@3'
```

A grade of an adjective is introduced by symbol @ distinguishing it from the case number.

```
agreement := '#'
```

Agreement with the governing node in case, number and gender (only if this category exists by both nodes and it is not specified by the record of morphological constraints by the dependent node).

```
tag_spec := tag_pos '<' tag_values '>' [ tag_spec ]
tag_pos := [ '$1' | '$2' | '$3' | '$4' | '$5' | '$6' | '$7' | '$8'
| '$9' | '$10' | '$11' | '$12' | '$13' | '$14' | '$15' ]
tag_values := CHAR [ tag_values ]
```

If the records stated above are not sufficient to describe the constraints on a morphological tag, it is possible to give other constraints in the form of enumerated values that are permissible for particular positions of the morphological tag. The record of a constraint on the value of a particular morphological tag begins with the symbol \$, followed by the number of position ( 1 to 15 ), and by a string within pointed brackets $<>$ this string consists of all symbols that are allowed to occur in the particular position of a morphological tag. All symbols except letters, numbers and a hyphen that occur within pointed brackets must be introduced by a backslash.

A valency frame can be empty. Such valency frame is recorded in the folowing way: EMPTY.

### 11.5.2. Semantics of a valency frame record

This section deals with a brief explanation of how a valency frame recorded in PDT Valency Lexicon complies with a set of nodes (in the form of a subtree) of a tectogrammatical tree.

A node of a tectogrammatical tree corresponds to a node of the annaytical tree if it refers to that node through identifiers in attributes a/lex.rf and a/aux.rf (or in another way) and at the same time if it does not refer to any other of the superior nodes.

Realization (of a frame member) $R_{N}$ is a record of an incomplete analytical subtree $N$. Each node of an incomplete analytical tree may carry some constraints on the values following categories: lemma, agreement, part of speech (usually only if a lemma is not permissible), gender, number, case and grade, where the last five items correspond to the values in particular positions of a morphological tag and agreement indicates a grammatical agreement between the node and its parent node.

We say that the node $U$ of an analytical tree $S$ meets the conditions of realization $R_{N}$ (i.e. of the incomplete analytical tree $N$ ), if the following conditions are met: There is a homomorphism H between the nodes of the incomplete analytical tree $N$ and the analytical tree $S$, such that the root node of $N$ is mapped to $U$, where by a homomorphism of trees we mean a mapping preserving the 'node to parentnode' relation. Moreover, if a node $S$ of $N$ contains an agreement constraint, the values of number, gender and case assigned to the node $H(S)$ must be either unassigned (in which case a dash occurs on the corresponding position of the morphological tag in PDT), equal to those implied by the corresponding constraints on node $S$, or (if not constrained by $S$ ), equal to those of the parent node of $H(S)$. (Note: since in a morphological tag of a preposition rection is on the same position as case, agreement can be used to constraint case based on parent node's rection, too.)

A record of a realization complies with a node $T$ of a tectogrammatical tree if: the realization is recorded as $=$ and the attribute is_state of $T$ is 1 , or the record of the realization is ! and $T$ corresponds to no annalytical node, or the record consists of a list of realizations $R_{N_{1}}, \ldots, R_{N_{n}}$ of sibling incomplete analytical trees and there are $n$ subtrees $U_{1}, \ldots, U_{n}$ of the analytical node corresponding to $T$ meating the conditions $R_{N_{1}}, \ldots, R_{N_{n}}$ respectively, or the record of the realization is * and $T$ complies with a typical realization of its functor (we do not discuss this case in detail in this text; in brief, * is to be translated to a list of alternative realizations of other types whose compliance is verified as described above).

A frame element complies with a node $T$ of a tectogrammatical tree if it has the functor recorded in the frame element and at the same time and at the same time the node at least one of the alternative realizations recorded in the frame element complies with $T$.

Alternation of frame members complies with a node $T$ of a tectogrammatical tree if the node complies with any of the alternated frame members.

A frame complies with a subtree of a tectogrammatical tree, if the lemma of this frame is the attribute lemma (of at least one) node of the analytical tree that corresponds to the root node of this subtree and each obligatory frame member (or an alternation) complies with a node or several nodes depending on the root node of this subtree. Moreover, arguments may not comply to more then one node and all nodes with functors ACT, PAT, EFF, ORIG, ADDR depending on the root node of the subtree comply with some frame member (element or alternation).

### 11.5.3. Realizations

## Example 11.1. Specification of case (only) <br> .4

Example 11.2. Preposition and case
s[.7]

## Example 11.3. Preposition and case or only case

```
pro[.4];.3
```

Example 11.4. A dependent clause (the root node is a verb) introduced by the subordinating conjuction že or aby

```
že[.v];aby[.v]
```


## Example 11.5. Asyndetic dependent clause

Example 11.6. Infinitive

.f
Example 11.7. Possessive pronoun or adjective
. u

## Example 11.8. Dependent clause introduced by a subordinating conjunction

:j[.v]

Example 11.9. Complex preposition na rozdíl od
od-1[na-1,rozdíl,.2]

## Example 11.10. The idiomatic expression (balit) fidlátka

fidlátko.P4
Example 11.11. The idiomatic expression (běhá mi) mráz po zádech
mráz.S1,po-1[záda:P6]
Example 11.12. The idiomatic expression (jit) po krku
po-1[krk.S6]
Example 11.13. State
$=$

### 11.5.4. Frames

## Example 11.14. Transitive verb

```
ACT(.1) PAT(.4)
```

Example 11.15. Infinitive

ACT(.1) PAT(.f)

## Example 11.16. Idiomatic expression

```
ACT(.3) DPHR(mráz.S1,po-1[záda:P6])
```

Example 11.17. Frame with an optional member

```
ACT(.1) PAT(.4) ?ORIG(z-1[.2]) ?EFF(na-1[.4])
```


### 11.5.5. Abbreviated forms of realization records

To simplify the record, prepositional phrases in realization record of valency frame members can use certain enumerated abbreviations. The frame records that contain the particular abbreviations correspond to the described grammar up to the substitution of all abbreviations by their non-abbreviated forms. The following list includes permissible abbreviated forms. There is a complete form following each abbreaviation after the symbol $\rightarrow$.

```
do+2 }->\mathrm{ do-1[.2]
k+3 -> k-1[.3]
mezi+4 -> mezi-1[.4]
mezi+7 -> mezi-1[.7]
místo+2 -> místo-2[.2]
na+4 -> na-1[.4]
na+6 -> na-1[.6]
nad+7 -> nad-1[.7]
o+4 -> o-1[.4]
0+6 -> o-1[.6]
```

```
od+2 -> od-1[.2]
okolo+2 -> okolo-1[.2]
oproti+3 -> oproti[.3]
po+6 -> po-1[.6]
pod+4 -> pod-1[.4]
pod+7 -> pod-1[.7]
podle+2 -> podle-2[.2]
pro+4 -> pro-1[.4]
proti+3 -> proti-1[.3]
před+7 -> před-1[.7]
přes+4 -> přes-1[.4]
při+6 -> při-1[.6]
s+7 -> s-1[.7]
u+2 -> u-1[.2]
v+4 -> v-1[.4]
v+6 -> v-1[.6]
včetně+2 -> včetně-2[.2]
vůči+3 -> vůči[.3]
z+2 -> z-1[.2]
za+4 -> za-1[.4]
za+7 -> za-1[.7]
```


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of cause, 518
of concession, 521
of condition, 523
of extent, 543
of intent, 526
of manner, 529, 546
of means, 550
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of regard, 553
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dependent, 10
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with adverbial meanings, 866
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right, 10
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# Appendix 1. Functional possibilities of selected means of expression 

The lists in this appendix are based on the PDT2.0 data. They match various formal means (prepositions, subordinating conjunctions, adverbs and particles) with the functors that were assigned to free modifications realized by these forms. Only the forms which have more than 50 occurrences in PDT2.0 are listed, each of the forms is assigned only the functors which have more than 30 occurrences (with the particular form).

Table 1.1. Prepositions and subordinating conjunctions

| form | functor | number of occurrences |
| :---: | :---: | :---: |
| aby |  | 456 |
|  | AIM | 392 |
|  | RESL | 39 |
| ačkoliv |  | 96 |
|  | CNCS | 95 |
| bez+2 |  | 560 |
|  | ACMP | 543 |
| během+2 |  | 252 |
|  | TPAR | 248 |
| do+2 |  | 3837 |
|  | DIR3 | 2922 |
|  | TTILL | 677 |
|  | EXT | 91 |
|  | RSTR | 45 |
| díky+3 |  | 178 |
|  | CAUS | 176 |
| i když |  | 174 |
|  | CNCS | 170 |
| jako |  | 77 |
|  | CPR | 69 |
| jako+1 |  | 616 |
|  | COMPL | 602 |
| jako+4 |  | 207 |
|  | COMPL | 204 |
| jestliže |  | 110 |
|  | COND | 110 |
| k+3 |  | 1661 |
|  | DIR3 | 771 |
|  | AIM | 529 |
|  | REG | 169 |
|  | TWHEN | 59 |
|  | RESL | 34 |
|  | RSTR | 31 |
| kdyby |  | 175 |
|  | COND | 172 |
| když |  | 684 |
|  | TWHEN | 402 |
|  | COND | 266 |
| kolem+2 |  | 181 |
|  | LOC | 111 |


| form | functor | number of occurrences |
| :---: | :---: | :---: |
| koncem+2 |  | 97 |
|  | TWHEN | 97 |
| kromě+2 |  | 289 |
|  | RESTR | 289 |
| kvůli+3 |  | 128 |
|  | CAUS | 127 |
| -li |  | 314 |
|  | COND | 309 |
| mezi+4 |  | 96 |
|  | DIR3 | 96 |
| mezi+7 |  | 653 |
|  | LOC | 594 |
| mimo +4 |  | 177 |
|  | RESTR | 100 |
|  | LOC | 53 |
| místo +2 |  | 81 |
|  | SUBS | 80 |
| na+2 |  | 132 |
|  | TFHL | 48 |
| na+4 |  | 2851 |
|  | DIR3 | 1098 |
|  | AIM | 640 |
|  | TFHL | 208 |
|  | REG | 178 |
|  | TOWH | 129 |
|  | MANN | 108 |
|  | TWHEN | 92 |
|  | RSTR | 84 |
|  | CAUS | 81 |
|  | INTT | 73 |
|  | BEN | 34 |
| na rozdíl od +2 |  | 82 |
|  | CPR | 82 |
| na+6 |  | 4416 |
|  | LOC | 3920 |
|  | TWHEN | 179 |
|  | REG | 103 |
|  | RSTR | 66 |
|  | MANN | 59 |
|  | MEANS | 36 |


| form | functor | number of occurrences |
| :---: | :---: | :---: |
| na základě+2 |  | 136 |
|  | CRIT | 123 |
| nad+7 |  | 265 |
|  | RSTR | 147 |
|  | LOC | 86 |
| než |  | 255 |
|  | CPR | 154 |
|  | RESTR | 35 |
| než+2 |  | 123 |
|  | CPR | 122 |
| o+4 |  | 636 |
|  | DIFF | 615 |
| o+6 |  | 170 |
|  | RSTR | 71 |
|  | TWHEN | 48 |
| od +2 |  | 990 |
|  | TSIN | 727 |
|  | DIR1 | 203 |
| po+4 |  | 101 |
|  | THL | 48 |
| po+6 |  | 1786 |
|  | TWHEN | 1488 |
|  | DIR2 | 71 |
|  | LOC | 68 |
|  | MANN | 32 |
|  | HER | 30 |
| pod+4 |  | 63 |
|  | DIR3 | 58 |
| pod+7 |  | 314 |
|  | LOC | 133 |
|  | MANN | 82 |
|  | COND | 47 |
| podle +2 |  | 2113 |
|  | CRIT | 2089 |
| pokud |  | 524 |
|  | COND | 505 |
| poté,co |  | 114 |
|  | TWHEN | 112 |


| form | functor | number of occurrences |
| :---: | :---: | :---: |
| pro+4 |  | 3130 |
|  | BEN | 2237 |
|  | AIM | 604 |
|  | CAUS | 165 |
|  | REG | 41 |
| prostřednictvím+2 |  | 93 |
|  | MEANS | 93 |
| proti+3 |  | 429 |
|  | BEN | 323 |
|  | CPR | 64 |
| proto, že |  | 132 |
|  | CAUS | 132 |
| protože |  | 599 |
|  | CAUS | 597 |
| před +7 |  | 886 |
|  | TWHEN | 661 |
|  | LOC | 201 |
| přes+4 |  | 267 |
|  | DIR2 | 96 |
|  | CNCS | 91 |
| přestože |  | 107 |
|  | CNCS | 107 |
| při ${ }^{\text {+ }}$ 6 |  | 1233 |
|  | TWHEN | 768 |
|  | COND | 350 |
|  | LOC | 55 |
|  | TPAR | 37 |
| s+7 |  | 2689 |
|  | ACMP | 2518 |
|  | MANN | 49 |
|  | REG | 33 |
| spolu s+7 |  | 154 |
|  | ACMP | 154 |
| u+2 |  | 1272 |
|  | LOC | 1074 |
|  | REG | 130 |
|  | RSTR | 39 |
| $\mathrm{v}+4$ |  | 640 |
|  | TWHEN | 616 |


| form | functor | number of occurrences |
| :---: | :---: | :---: |
| v+6 |  | 17407 |
|  | LOC | 11947 |
|  | TWHEN | 3417 |
|  | REG | 532 |
|  | MANN | 491 |
|  | RSTR | 375 |
|  | COND | 268 |
|  | ATT | 127 |
|  | EXT | 102 |
|  | MEANS | 31 |
| v době+2 |  | 58 |
|  | TWHEN | 58 |
| v oblasti+2 |  | 94 |
|  | LOC | 94 |
| v průběhu+2 |  | 74 |
|  | TPAR | 64 |
| v prípadě+2 |  | 166 |
|  | COND | 89 |
|  | REG | 77 |
| v rámci+2 |  | 158 |
|  | REG | 129 |
| v souvislosti s+7 |  | 94 |
|  | ACMP | 61 |
| ve srovnání ${ }^{+}+7$ |  | 56 |
|  | CPR | 56 |
| vedle +2 |  | 120 |
|  | RESTR | 98 |
| vzhledem k+3 |  | 128 |
|  | REG | 90 |
|  | CAUS | 37 |
| včetně +2 |  | 194 |
|  | ACMP | 194 |
| vůči+3 |  | 177 |
|  | REG | 174 |


| form | functor | number of occurrences |
| :---: | :---: | :---: |
| z+2 |  | 5086 |
|  | DIR1 | 4356 |
|  | CAUS | 234 |
|  | TFRWH | 144 |
|  | TSIN | 124 |
|  | REG | 79 |
|  | RSTR | 43 |
|  | MEANS | 31 |
| z hlediska+2 |  | 56 |
|  | REG | 55 |
| za+2 |  | 295 |
|  | COND | 175 |
|  | TWHEN | 75 |
|  | TPAR | 36 |
| za+4 |  | 1320 |
|  | CAUS | 347 |
|  | THL | 251 |
|  | SUBS | 136 |
|  | MEANS | 82 |
|  | REG | 63 |
|  | EXT | 110 |
|  | RSTR | 55 |
|  | DIR3 | 42 |
|  | TWHEN | 39 |
|  | MANN | 32 |
| za+7 |  | 260 |
|  | LOC | 142 |
|  | DIR3 | 57 |
| zatímco |  | 220 |
|  | CONTRD | 166 |
|  | TPAR | 54 |
| že |  | 359 |
|  | RSTR | 148 |
|  | RESL | 120 |
|  | CAUS | 43 |

Table 1.2. Adverbs and particles

| Lemma | functor | number of occurrences |
| :---: | :---: | :---: |
| asi |  | 511 |
|  | EXT | 341 |
|  | MOD | 169 |
| až |  | 81 |
|  | EXT | 81 |
| brzy |  | 70 |
|  | TWHEN | 69 |
| bohužel |  | 84 |
|  | ATT | 84 |
| celkem |  | 144 |
|  | EXT | 140 |
| co |  | 87 |
|  | EXT | 84 |
| daleko |  | 68 |
|  | EXT | 55 |
| denně |  | 65 |
|  | THO | 56 |
| dlouho |  | 106 |
|  | THL | 106 |
| dnes |  | 661 |
|  | TWHEN | 647 |
| dobře |  | 191 |
|  | MANN | 191 |
| dodnes |  | 55 |
|  | TTILL | 49 |
| doma |  | 93 |
|  | LOC | 93 |
| doslova |  | 50 |
|  | ATT | 46 |
| dost |  | 120 |
|  | EXT | 60 |
|  | RSTR | 50 |
| dosud |  | 264 |
|  | TTILL | 263 |
| dál |  | 56 |
|  | THL | 41 |
| dále |  | 112 |
|  | THL | 111 |
| dř̌ive |  | 155 |
|  | TWHEN | 155 |


| Lemma | functor | number of occurrences |
| :---: | :---: | :---: |
| hodně |  | 105 |
|  | EXT | 64 |
|  | RSTR | 39 |
| jak |  | 611 |
|  | MANN | 523 |
|  | EXT | 88 |
| jasně |  | 56 |
|  | MANN | 50 |
| jednou |  | 55 |
|  | THO | 31 |
| jednoznačně |  | 60 |
|  | ATT | 39 |
| ještě |  | 306 |
|  | THL | 140 |
|  | TWHEN | 131 |
| jinak |  | 129 |
|  | MANN | 121 |
| jistě |  | 119 |
|  | MOD | 116 |
| již |  | 169 |
|  | TWHEN | 169 |
| kam |  | 95 |
|  | DIR3 | 95 |
| kde |  | 596 |
|  | LOC | 595 |
| kdy |  | 601 |
|  | TWHEN | 601 |
| konečně |  | 60 |
|  | TWHEN | 51 |
| krátce |  | 114 |
|  | MANN | 88 |
| letos |  | 335 |
|  | TWHEN | 334 |
| loni |  | 212 |
|  | TWHEN | 212 |
| lépe |  | 100 |
|  | MANN | 99 |
| maximálně |  | 52 |
|  | EXT | 50 |
| mj |  | 91 |
|  | RESTR | 89 |


| Lemma | functor | number of occurrences |
| :---: | :---: | :---: |
| mnohem |  | 118 |
|  | EXT | 118 |
| moc |  | 55 |
|  | EXT | 53 |
| možná |  | 147 |
|  | MOD | 145 |
| méně |  | 165 |
|  | EXT | 122 |
|  | RSTR | 40 |
| nadále |  | 135 |
|  | THL | 132 |
| nakonec |  | 170 |
|  | TWHEN | 161 |
| naprosto |  | 81 |
|  | EXT | 81 |
| nedávno |  | 105 |
|  | TWHEN | 105 |
| nejdříve |  | 60 |
|  | TWHEN | 60 |
| nejméně |  | 96 |
|  | EXT | 91 |
| nejprve |  | 62 |
|  | TWHEN | 62 |
| nejvíce |  | 102 |
|  | EXT | 68 |
|  | RSTR | 34 |
| nijak |  | 58 |
|  | MANN | 33 |
| nikdy |  | 180 |
|  | TWHEN | 180 |
| nově |  | 71 |
|  | MANN | 71 |
| nyní |  | 408 |
|  | TWHEN | 408 |
| někdy |  | 114 |
|  | TWHEN | 106 |
| občas |  | 59 |
|  | THO | 57 |
| oficiálně |  | 60 |
|  | MANN | 60 |


| Lemma | functor | number of occurrences |
| :---: | :---: | :---: |
| okamžitě |  | 72 |
|  | TWHEN | 72 |
| opravdu |  | 113 |
|  | ATT | 92 |
| opět |  | 194 |
|  | TWHEN | 194 |
| osobně |  | 62 |
|  | MANN | 33 |
| ostatně |  | 59 |
|  | ATT | 59 |
| pak |  | 367 |
|  | TWHEN | 367 |
| patrně |  | 60 |
|  | MOD | 59 |
| plně |  | 50 |
|  | EXT | 49 |
| pochopitelně |  | 52 |
|  | ATT | 47 |
| podobně |  | 84 |
|  | MANN | 83 |
| podstatně |  | 74 |
|  | EXT | 69 |
| poměrně |  | 88 |
|  | EXT | 88 |
| poněkud |  | 79 |
|  | EXT | 79 |
| postupně |  | 105 |
|  | MANN | 104 |
| potom |  | 53 |
|  | TWHEN | 53 |
| poté |  | 72 |
|  | TWHEN | 72 |
| později |  | 191 |
|  | TWHEN | 191 |
| prakticky |  | 95 |
|  | ATT | 70 |
| pravděpodobně |  | 84 |
|  | MOD | 84 |
| prostě |  | 77 |
|  | ATT | 74 |


| Lemma | functor | number of occurrences |
| :---: | :---: | :---: |
| proč |  | 195 |
|  | CAUS | 192 |
| prý |  | 323 |
|  | MOD | 318 |
| přece |  | 113 |
|  | ATT | 104 |
| předem |  | 68 |
|  | TWHEN | 65 |
| předtím |  | 54 |
|  | TWHEN | 54 |
| přesně |  | 75 |
|  | MANN | 54 |
| přibližně |  | 84 |
|  | EXT | 83 |
| příliš |  | 225 |
|  | EXT | 216 |
| původně |  | 73 |
|  | TWHEN | 73 |
| raději |  | 53 |
|  | ATT | 46 |
| rozhodně |  | 84 |
|  | MOD | 60 |
| ročně |  | 130 |
|  | THO | 83 |
|  | THL | 40 |
| rychle |  | 96 |
|  | MANN | 96 |
| samozřejmě |  | 161 |
|  | ATT | 159 |
| sem |  | 58 |
|  | DIR3 | 57 |
| skoro |  | 56 |
|  | EXT | 56 |
| skutečně |  | 146 |
|  | ATT | 109 |
|  | MOD | 30 |
| snad |  | 191 |
|  | MOD | 185 |
| současně |  | 61 |
|  | TWHEN | 59 |


| Lemma | functor | number of occurrences |
| :---: | :---: | :---: |
| stejně |  | 228 |
|  | MANN | 212 |
| stále |  | 265 |
|  | THL | 253 |
| stále |  | 72 |
|  | THL | 70 |
| tady |  | 97 |
|  | LOC | 96 |
| tak |  | 622 |
|  | MANN | 334 |
|  | EXT | 267 |
| takto |  | 81 |
|  | MANN | 78 |
| tam |  | 256 |
|  | LOC | 216 |
|  | DIR3 | 39 |
| tehdy |  | 154 |
|  | TWHEN | 154 |
| tentokrát |  | 79 |
|  | TWHEN | 79 |
| ted' |  | 140 |
|  | TWHEN | 139 |
| trochu |  | 101 |
|  | EXT | 101 |
| tu |  | 204 |
|  | LOC | 197 |
| téměř |  | 321 |
|  | EXT | 321 |
| těžko |  | 60 |
|  | MANN | 39 |
| určitě |  | 77 |
|  | MOD | 77 |
| už |  | 230 |
|  | TWHEN | 230 |
| velice |  | 106 |
|  | EXT | 106 |
| velmi |  | 445 |
|  | EXT | 445 |
| večer |  | 74 |
|  | TWHEN | 74 |


| Lemma | functor | number of occurrences |
| :---: | :---: | :---: |
| vlastně |  | 137 |
|  | ATT | 137 |
| vloni |  | 54 |
|  | TWHEN | 54 |
| vždy |  | 220 |
|  | TWHEN | 201 |
| vždycky |  | 51 |
|  | TWHEN | 46 |
| včera |  | 991 |
|  | TWHEN | 991 |
| většinou |  | 95 |
|  | EXT | 90 |
| víc |  | 111 |
|  | RSTR | 59 |
|  | EXT | 46 |
| více |  | 424 |
|  | EXT | 214 |
|  | RSTR | 183 |
| vůbec |  | 247 |
|  | EXT | 242 |
| výrazně |  | 97 |
|  | EXT | 66 |
|  | MANN | 31 |
| zase |  | 53 |
|  | TWHEN | 53 |
| zatím |  | 452 |
|  | TWHEN | 445 |
| zcela |  | 266 |
|  | EXT | 266 |
| zde |  | 251 |
|  | LOC | 250 |
| zhruba |  | 219 |
|  | EXT | 219 |
| značně |  | 71 |
|  | EXT | 71 |
| znovu |  | 177 |
|  | TWHEN | 173 |
| zpět |  | 70 |
|  | DIR3 | 67 |
| zároveň |  | 107 |
|  | TWHEN | 105 |


| Lemma | functor | number of occurrences |
| :---: | :---: | :---: |
| zítra | 65 |  |
|  | TWHEN | 65 |
| zřejmě | 234 |  |
|  | MOD | 232 |
| často | 190 |  |
|  | THO | 188 |
| údajně | 128 |  |
|  | ATT | 94 |
|  | MOD | 33 |
| úplně | 64 |  |
|  | EXT | 64 |

## Appendix 2. Coordinating connectives and operators

The list includes all coordinating connectives (incl. the so-called complex connectives) and operators that occur in the PDT 2.0 data.

For annotation rules regarding coordinating connectives and operators see Section 8.16, "Co-ordinating connectives and operators".

The first column of the following table lists the t-lemmas of individual nodes that represent an entire (complex) connective or operator, i.e. the t-lemmas of paratactic structure root nodes and perhaps also the $t$-lemmas of the nodes that represent conjunction modifiers (functor=CM). T-lemmas of paratactic structure root nodes are always printed in bold.

The list is ordered alphabetically, firstly according to the t-lemma of a paratactic structure root node (acc. to the coordinating conjunction that forms the core of the whole connective), secondly according to the whole connective (or operator), and thirdly according to the functor.

Table 2.1. Coordinating connectives and operators

| coordinating connective or operator | functor of a paratactic structure root node | number of occurrences |
| :---: | :---: | :---: |
| a | ADVS | 4 |
| a | APPS | 3 |
| a | CONJ | 16032 |
| a | CSQ | 5 |
| a | DISJ | 3 |
| a | GRAD | 2 |
| a | OPER | 20 |
| a abc | APPS | 1 |
| a ani | CONJ | 6 |
| a ani | GRAD | 1 |
| a dále | CONJ | 4 |
| a dále například | CONJ | 1 |
| a dokonce ani | GRAD | 3 |
| a dokonce | GRAD | 7 |
| a dokonce i | GRAD | 9 |
| a dokonce též | GRAD | 1 |
| a eventuálně i | DIS J | 1 |
| a hlavně | GRAD | 23 |
| a i | CONJ | 23 |
| a i | GRAD | 6 |
| a i proto | CSQ | 1 |
| a jen | GRAD | 1 |
| a ještě | CONJ | 2 |
| a ještě | GRAD | 7 |
| a konečně | CONJ | 1 |
| a konkrétně | GRAD | 1 |
| a nakonec i | GRAD | 1 |
| a naopak | CONFR | 3 |
| a navíc | GRAD | 5 |
| a ne | ADVS | 22 |
| a ne pouze | GRAD | 1 |
| a ne zdaleka jen | ADVS | 1 |
| a nejen | GRAD | 4 |
| a nikoliv | ADVS | 13 |
| a nikoliv pouze | GRAD | 1 |
| a pak | CONJ | 2 |
| a pak především | GRAD | 1 |
| a potažmo | CSQ | 5 |
| a potom | CSQ | 1 |


| coordinating connective or operator | functor of a paratactic structure root node | number of occurrences |
| :---: | :---: | :---: |
| a právě | CONJ | 2 |
| a právě proto | CSQ | 1 |
| a proto | CSQ | 85 |
| a prece | ADVS | 3 |
| a především | CONJ | 13 |
| a především | GRAD | 11 |
| a přesto | ADVS | 3 |
| a přesto ne | ADVS | 1 |
| a přímo | CONJ | 1 |
| a prrípadně | CONJ | 1 |
| a případně | DISJ | 2 |
| a případně i | CONJ | 2 |
| a prritom | CONJ | 6 |
| a rovněž | CONJ | 8 |
| a rovněž i | CONJ | 1 |
| a řada poslední | CONJ | 2 |
| a řada poslední i | CONJ | 1 |
| a sice | APPS | 4 |
| a současně | CONJ | 5 |
| a současně i | CONJ | 3 |
| a současně i | GRAD | 1 |
| a spíse | ADVS | 1 |
| a spíse | GRAD | 2 |
| a spíše ten | GRAD | 1 |
| a stejně tak | CONJ | 5 |
| a tak | CSQ | 104 |
| a tak i | CSQ | 2 |
| a také | CONJ | 78 |
| a také proto | CSQ | 1 |
| a tedy | CSQ | 24 |
| a tedy i | APPS | 1 |
| a tedy i | CSQ | 14 |
| a ten | GRAD | 1 |
| a ten i | CSQ | 3 |
| a též | CONJ | 2 |
| a třeba | GRAD | 1 |
| a třeba i | GRAD | 2 |
| a tudiž ani | CSQ | 1 |
| a tudíž | CSQ | 23 |
| a tudiž i | CSQ | 3 |


| coordinating connective or operator | functor of a paratactic structure root node | number of occurrences |
| :---: | :---: | :---: |
| a tudíž také | CSQ | 1 |
| a vlastně | GRAD | 3 |
| a vlastně i | GRAD | 1 |
| a zároveñ | CONJ | 23 |
| a zároveň i | CONJ | 3 |
| a zejména | GRAD | 12 |
| a zejména pak | GRAD | 1 |
| a zrovna tak | DIS J | 1 |
| a zvlášt' | GRAD | 4 |
| a zvláště | APPS | 1 |
| a zvláště | GRAD | 3 |
| a zvláště pak | GRAD | 1 |
| dále a | CONJ | 1 |
| dále a nakonec | CONJ | 1 |
| jednak a | CONJ | 3 |
| jednak a dále | CONJ | 2 |
| jednak a druhý | CONJ | 1 |
| jednak a hlavně | GRAD | 1 |
| jednak a jednak | CONJ | 4 |
| jen a ne | ADVS | 1 |
| jen a \#Neg | ADVS | 1 |
| ale | ADVS | 1090 |
| ale | GRAD | 2 |
| ale ani | ADVS | 1 |
| ale ani | GRAD | 4 |
| ale hlavně | GRAD | 1 |
| ale i | GRAD | 53 |
| ale i například | GRAD | 1 |
| ale jen | ADVS | 1 |
| ale například i | GRAD | 1 |
| ale například také | GRAD | 1 |
| ale ne | ADVS | 3 |
| ale přece jen | GRAD | 1 |
| ale především | GRAD | 4 |
| ale přesto | ADVS | 6 |
| ale případně i | GRAD | 1 |
| ale přitom | ADVS | 1 |
| ale spíše | GRAD | 1 |
| ale stejně tak | CONJ | 1 |
| ale také | GRAD | 24 |


| coordinating connective or operator | functor of a paratactic structure root node | number of occurrences |
| :---: | :---: | :---: |
| ale také třeba | GRAD | 1 |
| ale též | GRAD | 1 |
| ale třeba i | GRAD | 4 |
| ale zároveň | ADVS | 8 |
| ale zároveň i | GRAD | 1 |
| ale zato | ADVS | 5 |
| ale zejména | GRAD | 3 |
| ani ale ani | ADVS | 2 |
| ani ne ale spíše | ADVS | 1 |
| i ale i | GRAD | 1 |
| jednak ale hlavně | GRAD | 1 |
| ne ale | ADVS | 9 |
| ne ale právě | ADVS | 1 |
| ne ale spíse | ADVS | 1 |
| ne pouze ale | GRAD | 1 |
| \#Neg ale | ADVS | 1 |
| \#Neg ale | GRAD | 1 |
| \#Neg ale i | GRAD | 1 |
| \#Neg ale jen | GRAD | 2 |
| \#Neg ale pouze | ADVS | 1 |
| \#Neg ale především | GRAD | 1 |
| \#Neg ale také ani | GRAD | 1 |
| \#Neg ale také | GRAD | 1 |
| \#Neg jen ale | GRAD | 4 |
| \#Neg jen ale hlavně | GRAD | 1 |
| \#Neg jen ale i | GRAD | 12 |
| \#Neg jen ale především | GRAD | 3 |
| \#Neg jen ale také | GRAD | 6 |
| \#Neg jen ale též | GRAD | 1 |
| \#Neg jenom ale | GRAD | 1 |
| \#Neg jenom ale i | GRAD | 3 |
| \#Neg pouze ale | GRAD | 5 |
| \#Neg pouze ale i | GRAD | 2 |
| \#Neg pouze ale například | GRAD | 1 |
| \#Neg pouze ale především | GRAD | 2 |
| \#Neg pouze ale také | GRAD | 1 |
| \#Neg výhradně ale i | GRAD | 1 |
| nejen ale ani | GRAD | 6 |
| nejen ale dokonce | GRAD | 7 |
| nejen ale dokonce i | GRAD | 1 |


| coordinating connective or operator | functor of a paratactic structure root node | number of occurrences |
| :---: | :---: | :---: |
| nejen ale | GRAD | 23 |
| nejen ale hlavně | GRAD | 4 |
| nejen ale i | GRAD | 111 |
| nejen ale i prímo | GRAD | 1 |
| nejen ale ještě | GRAD | 1 |
| nejen ale naopak | GRAD | 1 |
| nejen ale především | GRAD | 7 |
| nejen ale přímo | GRAD | 1 |
| nejen ale rovněž | GRAD | 3 |
| nejen ale rovnou | GRAD | 1 |
| nejen ale také | GRAD | 28 |
| nejen ale taktéž | GRAD | 1 |
| nejen ale též | GRAD | 2 |
| nejen ale třeba také | GRAD | 1 |
| nejen ale většinou ani | GRAD | 1 |
| nejen ale zároveň | GRAD | 1 |
| nejen ale zejména | GRAD | 2 |
| nejen že ale zejména | GRAD | 1 |
| nejenom ale i | GRAD | 7 |
| nejenom ale také | GRAD | 2 |
| nejenom ale zejména | GRAD | 1 |
| nejenomže ale | GRAD | 1 |
| nejenže ale ani | GRAD | 1 |
| nejenže ale | GRAD | 2 |
| nejenže ale i | GRAD | 3 |
| nejenže ale také | GRAD | 2 |
| nikoliv ale | ADVS | 20 |
| nikoliv ale naopak | CONFR | 1 |
| nikoliv ale pouze | GRAD | 1 |
| nikoliv ale právěže jen | GRAD | 1 |
| nikoliv ale spíše | ADVS | 1 |
| nikoliv jen ale hlavně | GRAD | 1 |
| nikoliv pouze ale | GRAD | 1 |
| především ale nejen | GRAD | 1 |
| především ale také | GRAD | 1 |
| sice ale | ADVS | 181 |
| sice ale aspoň | ADVS | 1 |
| sice ale i tak | ADVS | 1 |
| sice ale přesto | ADVS | 1 |
| sice ale také | ADVS | 1 |


| coordinating connective or operator | functor of a paratactic structure root node | number of occurrences |
| :---: | :---: | :---: |
| sice ale zároveň | ADVS | 1 |
| sice ale zato | ADVS | 4 |
| třeba ale jen | ADVS | 1 |
| zejména ale i | GRAD | 1 |
| alias | APPS | 3 |
| aneb | APPS | 10 |
| a_nebo | DIS J | 6 |
| \#Neg a | ADVS | 1 |
| ani | CONJ | 151 |
| ani | GRAD | 21 |
| dokonce ani | GRAD | 1 |
| aniž | ADVS | 27 |
| aniž | CONJ | 28 |
| aniž tak | ADVS | 1 |
| dokonce aniž | GRAD | 1 |
| převážně a také | CONJ | 1 |
| sice a | CONJ | 1 |
| stejně a tak | CONJ | 1 |
| také a | CONJ | 1 |
| at’_či | CONJ | 1 |
| $\mathbf{a t}^{\prime}$ _či | DIS J | 3 |
| již at'_či | DIS J | 1 |
| už at'_či | DIS J | 2 |
| již at' tak také | DIS J | 1 |
| at'_nebo | DISJ | 7 |
| již at'_nebo | DISJ | 2 |
| už at'_nebo | DIS J | 9 |
| a_to | APPS | 156 |
| a_to | CONJ | 1 |
| a_to | CSQ | 3 |
| a_to dokonce | APPS | 1 |
| a_to i | APPS | 7 |
| a_to ještě | APPS | 4 |
| a_to nejen | APPS | 2 |
| a_to př̌edevším | APPS | 2 |
| avšak | ADVS | 47 |
| avšak i | GRAD | 2 |
| sice avšak | ADVS | 2 |
| zaprvé a druhý | CONJ | 1 |
| zejména a nikoliv | ADVS | 1 |


| coordinating connective or operator | functor of a paratactic structure root node | number of occurrences |
| :---: | :---: | :---: |
| až | OPER | 374 |
| ba | GRAD | 7 |
| ba dokonce | GRAD | 2 |
| ba dokonce i | GRAD | 1 |
| ba i | GRAD | 2 |
| bud'_či | DIS J | 2 |
| bud'_nebo | DISJ | 68 |
| bud'_nebo alespoň | DIS J | 1 |
| bud'_nebo prímo | DIS J | 1 |
| bud'_nebo prípadně | DISJ | 1 |
| přímo bud'_nebo | DISJ | 1 |
| coby | APPS | 1 |
| či | CONJ | 426 |
| či | DIS J | 240 |
| či alespoň | GRAD | 1 |
| či dokonce | GRAD | 11 |
| či i | GRAD | 1 |
| čí jen | DIS J | 1 |
| či jenom | GRAD | 1 |
| či naopak | CONFR | 2 |
| či například | GRAD | 1 |
| či presně | APPS | 1 |
| či přesně | GRAD | 1 |
| či rovnou | GRAD | 1 |
| či spíše | GRAD | 2 |
| či vlastně | DISJ | 1 |
| či vlastně | GRAD | 1 |
| čili | APPS | 19 |
| čili | CSQ | 1 |
| de_facto | APPS | 1 |
| i | CONJ | 950 |
| i | GRAD | 8 |
| i třeba | CONJ | 1 |
| jako | APPS | 98 |
| ani tak jako | ADVS | 1 |
| jako například | APPS | 23 |
| jako třeba | APPS | 2 |
| ne tak jako | GRAD | 1 |
| podobně jako | CONJ | 2 |
| stejně jako | CONJ | 23 |


| coordinating connective or operator | functor of a paratactic structure root node | number of occurrences |
| :---: | :---: | :---: |
| stejně tak jako | CONJ | 2 |
| stejně tak jako tak i | CONJ | 1 |
| tak jako | ADVS | 1 |
| i jakož i | CONJ | 1 |
| jakož ani | CONJ | 1 |
| jakož i | CONJ | 11 |
| jakožto | APPS | 1 |
| jakožto i | CONJ | 1 |
| jak_tak | CONJ | 90 |
| jak_tak ani | CONJ | 1 |
| jak_tak i | CONJ | 20 |
| jak_tak i | GRAD | 10 |
| jak_tak prípadně | CONJ | 1 |
| jak_tak také | CONJ | 1 |
| už jak_tak | CONJ | 1 |
| jenže | ADVS | 23 |
| sice jenže | ADVS | 1 |
| sice jenže také | ADVS | 1 |
| jinak | APPS | 1 |
| jinak | CSQ | 1 |
| jinak | DISJ | 4 |
| jinak též | APPS | 1 |
| kdežto | CONFR | 9 |
| kdežto naopak | CONFR | 1 |
| kontra | CONTRA | 5 |
| krát | OPER | 1 |
| ku | OPER | 13 |
| leč | ADVS | 12 |
| na | OPER | 2 |
| natož | GRAD | 7 |
| ani natož | GRAD | 2 |
| i natož | GRAD | 1 |
| natož pak | GRAD | 3 |
| nebo | APPS | 1 |
| nebo | CONJ | 104 |
| nebo | DIS J | 800 |
| neboli | APPS | 15 |
| nebo alespoň | DISJ | 11 |
| nebo aspon̆ | GRAD | 1 |
| nebo dokonce | GRAD | 12 |


| coordinating connective or operator | functor of a paratactic structure root node | number of occurrences |
| :---: | :---: | :---: |
| nebo dokonce i | GRAD | 1 |
| nebo i | CONJ | 3 |
| nebo i | GRAD | 9 |
| nebo jen | GRAD | 2 |
| nebo ještě | DIS J | 1 |
| nebo naopak | CONFR | 3 |
| nebo například | GRAD | 1 |
| nebo pouze | GRAD | 1 |
| nebo prímo | GRAD | 1 |
| nebo přinejmenším | GRAD | 2 |
| nebo spíše | GRAD | 1 |
| nebo také | CONJ | 6 |
| nebo též | CONJ | 1 |
| nebo třeba | GRAD | 4 |
| nebo třeba jen | GRAD | 1 |
| nebo výlučně | GRAD | 1 |
| nebo zase | DISJ | 1 |
| nebot' | REAS | 222 |
| nicméně | ADVS | 19 |
| sice nicméně | ADVS | 3 |
| sice sice nicméně | ADVS | 1 |
| sice nicméně_však | ADVS | 1 |
| nýbrž | ADVS | 53 |
| \#Neg pouze nýbrž_a především | GRAD | 1 |
| \#Neg jen nýbrž | GRAD | 2 |
| \#Neg pouze nýbrž i | GRAD | 1 |
| nejen nýbrž | GRAD | 1 |
| nejen nýbrž i | GRAD | 5 |
| nikoliv nýbrž | ADVS | 7 |
| nikoliv nýbrž pouze | ADVS | 1 |
| od_do | OPER | 90 |
| až od_do | OPER | 2 |
| od_do až | OPER | 19 |
| od_přes_do | OPER | 3 |
| od_přes_do až | OPER | 8 |
| ovšem | ADVS | 55 |
| ovšem | CONJ | 1 |
| ovšem nikoliv | ADVS | 1 |
| sice ovšem | ADVS | 11 |
| plus | OPER | 8 |


| coordinating connective or operator | functor of a paratactic structure root node | number of occurrences |
| :---: | :---: | :---: |
| počínaje_konče | OPER | 4 |
| počínaje_přes_po až | OPER | 1 |
| přičemž | CONU | 87 |
| takže | CSQ | 127 |
| to_jest | APPS | 82 |
| to_jest například | APPS | 3 |
| to_jest rovněž | APPS | 1 |
| to_jest zejména | APPS | 1 |
| totiž | APPS | 14 |
| totiž | REAS | 6 |
| to_znamená | APPS | 8 |
| versus | CONTRA | 15 |
| však | ADVS | 233 |
| jednak však především | GRAD | 1 |
| přesto však | ADVS | 3 |
| sice však | ADVS | 48 |
| sice však přesto | ADVS | 2 |
| však ne | ADVS | 2 |
| však nikoliv | ADVS | 5 |
| však přece | ADVS | 1 |
| však především | GRAD | 1 |
| však zejména | GRAD | 1 |
| však zvláště | GRAD | 1 |
| zase však | ADVS | 1 |
| zato však | ADVS | 1 |
| vždyt' | REAS | 15 |
| + | CONJ | 17 |
| + | OPER | 19 |
| $\mathbf{x}$ | OPER | 27 |
| \#Amp | CONJ | 15 |
| \#Bracket | APPS | 709 |
| \#Bracket | CONJ | 2 |
| \#Bracket | DIS J | 4 |
| \#Bracket eventuálně | DIS J | 1 |
| \#Bracket hlavně | APPS | 1 |
| \#Bracket například | APPS | 21 |
| \#Bracket ne | ADVS | 1 |
| \#Bracket nikoliv | ADVS | 1 |
| \#Bracket nikoliv jen | GRAD | 1 |
| \#Bracket případně | DISJ | 1 |


| coordinating connective or operator | functor of a paratactic structure root node | number of occurrences |
| :---: | :---: | :---: |
| \#Bracket respektive | APPS | 2 |
| \#Bracket rovněž | APPS | 1 |
| \#Bracket rovněž i | CONJ | 1 |
| \#Bracket tedy | APPS | 11 |
| \#Bracket tedy | CSQ | 1 |
| \#Bracket tedy i | APPS | 1 |
| \#Bracket tedy ne | CSQ | 1 |
| \#Bracket třeba | APPS | 2 |
| \#Bracket třeba i | APPS | 1 |
| \#Bracket většinou | APPS | 2 |
| \#Bracket zejména | APPS | 1 |
| \#Bracket zejména též | APPS | 1 |
| tedy \#Bracket | APPS | 1 |
| \#Colon | APPS | 656 |
| \#Colon | CONJ | 488 |
| \#Colon | DIS J | 1 |
| \#Colon | OPER | 599 |
| \#Colon jednak | APPS | 1 |
| \#Colon například | APPS | 5 |
| \#Colon například | GRAD | 1 |
| \#Colon proto | CSQ | 1 |
| \#Colon prvý | APPS | 1 |
| \#Colon tedy | APPS | 1 |
| \#Colon totiž | APPS | 1 |
| \#Colon třeba | APPS | 2 |
| \#Comma | ADVS | 6 |
| \#Comma | APPS | 1423 |
| \#Comma | CONFR | 1 |
| \#Comma | CONJ | 4922 |
| \#Comma | DIS J | 3 |
| \#Comma | GRAD | 3 |
| \#Comma | OPER | 5 |
| a \#Comma b | CONJ | 1 |
| až \#Comma nikoliv | ADVS | 1 |
| \#Comma alespoñ | APPS | 2 |
| \#Comma ani | APPS | 2 |
| \#Comma až | GRAD | 2 |
| \#Comma dále | CONJ | 7 |
| \#Comma dokonce ani | GRAD | 1 |
| \#Comma dokonce | GRAD | 3 |


| coordinating connective or operator | functor of a paratactic structure root node | number of occurrences |
| :---: | :---: | :---: |
| \#Comma dokonce i | GRAD | 1 |
| \#Comma druhý | CONJ | 1 |
| \#Comma eventuálně | DISJ | 3 |
| \#Comma hlavně | APPS | 6 |
| \#Comma i | APPS | 1 |
| \#Comma i | GRAD | 2 |
| \#Comma jen | GRAD | 3 |
| \#Comma jen ne | ADVS | 1 |
| \#Comma ještě | APPS | 1 |
| \#Comma jiný | APPS | 1 |
| \#Comma jmenovitě | APPS | 1 |
| \#Comma konkrétně | APPS | 3 |
| \#Comma kupříkladu | APPS | 1 |
| \#Comma mj | APPS | 2 |
| \#Comma naopak | CONFR | 2 |
| \#Comma například | APPS | 71 |
| \#Comma napríklad i | APPS | 1 |
| \#Comma navíc | GRAD | 3 |
| \#Comma ne | ADVS | 8 |
| \#Comma ne_li | GRAD | 2 |
| \#Comma neřku | GRAD | 1 |
| \#Comma neřkuli | GRAD | 1 |
| \#Comma nikoliv | ADVS | 29 |
| \#Comma nikoliv jen | GRAD | 1 |
| \#Comma nota \#Forn bene | GRAD | 1 |
| \#Comma on | APPS | 1 |
| \#Comma pak | CONJ | 4 |
| \#Comma popřípadě | DISJ | 17 |
| \#Comma popřípadě i | GRAD | 1 |
| \#Comma potažmo | CSQ | 1 |
| \#Comma pouze | GRAD | 1 |
| \#Comma proto | CSQ | 41 |
| \#Comma především | APPS | 15 |
| \#Comma především | GRAD | 5 |
| \#Comma především pak | APPS | 2 |
| \#Comma především pak | GRAD | 1 |
| \#Comma především tedy | APPS | 1 |
| \#Comma přesně | APPS | 2 |
| \#Comma presně_ríci | APPS | 1 |
| \#Comma přesto | ADVS | 5 |


| coordinating connective or operator | functor of a paratactic structure root node | number of occurrences |
| :---: | :---: | :---: |
| \#Comma převážně | APPS | 5 |
| \#Comma případně | DISJ | 41 |
| \#Comma prípadně i | DISJ | 3 |
| \#Comma případně i | GRAD | 2 |
| \#Comma respektive | APPS | 23 |
| \#Comma respektive | CONJ | 13 |
| \#Comma respektive | DISJ | 9 |
| \#Comma rovněž | APPS | 2 |
| \#Comma řada jeden | APPS | 1 |
| \#Comma řada poslední | CONJ | 1 |
| \#Comma spíše | APPS | 1 |
| \#Comma stejně tak | CONJ | 1 |
| \#Comma stejně tak i | CONJ | 1 |
| \#Comma tak | CSQ | 7 |
| \#Comma také | CONJ | 2 |
| \#Comma tedy | APPS | 137 |
| \#Comma tedy | CSQ | 7 |
| \#Comma tedy i | APPS | 5 |
| \#Comma tedy i | CSQ | 3 |
| \#Comma tedy ještě | APPS | 1 |
| \#Comma tedy ne | APPS | 1 |
| \#Comma tedy především | APPS | 1 |
| \#Comma tentokrát | APPS | 1 |
| \#Comma třeba | APPS | 7 |
| \#Comma třeba | CONJ | 1 |
| \#Comma třeba i | APPS | 1 |
| \#Comma třeba i | GRAD | 1 |
| \#Comma třebas | APPS | 1 |
| \#Comma tudiž | APPS | 1 |
| \#Comma tudíž | CSQ | 1 |
| \#Comma většinou | APPS | 3 |
| \#Comma vlastně | APPS | 1 |
| \#Comma vlastně | GRAD | 1 |
| \#Comma zároveň | CONJ | 1 |
| \#Comma zas | ADVS | 1 |
| \#Comma zas | CONFR | 1 |
| \#Comma zato | ADVS | 17 |
| \#Comma zejména | APPS | 34 |
| \#Comma zejména | GRAD | 5 |
| \#Comma zejména pak | GRAD | 2 |


| coordinating connective or operator | functor of a paratactic structure root node | number of occurrences |
| :---: | :---: | :---: |
| \#Comma zvláště | APPS | 6 |
| dokonce \#Comma | GRAD | 1 |
| i \#Comma tedy i | APPS | 1 |
| jednak \#Comma druhý | CONJ | 1 |
| jednak \#Comma jednak | CONJ | 14 |
| jen \#Comma nikoliv | ADVS | 3 |
| jen \#Comma nikoliv také | ADVS | 1 |
| jen \#Comma případně | DIS J | 1 |
| například \#Comma | APPS | 1 |
| navíc \#Comma | GRAD | 1 |
| ne \#Comma | ADVS | 1 |
| ne \#Comma tak alespoň | ADVS | 1 |
| \#Neg \#Comma | ADVS | 1 |
| \#Neg \#Comma pouze | ADVS | 1 |
| \#Neg jen \#Comma | GRAD | 3 |
| \#Neg jen \#Comma i | GRAD | 2 |
| \#Neg jenom \#Comma | GRAD | 1 |
| nejen \#Comma navíc i | GRAD | 1 |
| nejen \#Comma také | GRAD | 1 |
| nejenom \#Comma i | GRAD | 1 |
| nejenže \#Comma | GRAD | 1 |
| nejenže \#Comma navíc | GRAD | 1 |
| ne_li \#Comma tedy | GRAD | 1 |
| nikoliv ne \#Comma ne | CONJ | 1 |
| pouze \#Comma ne_li jen | GRAD | 1 |
| pouze \#Comma nikoliv | ADVS | 3 |
| prvý \#Comma druhý třetí | CONJ | 1 |
| prvý dále \#Comma pak | CONJ | 1 |
| především \#Comma nikoliv | ADVS | 2 |
| rovněž \#Comma | CONJ | 1 |
| sice \#Comma | CONJ | 2 |
| sice \#Comma přesto | ADVS | 1 |
| sice \#Comma zato | ADVS | 3 |
| \#Dash | APPS | 761 |
| \#Dash | CONJ | 831 |
| \#Dash | CONTRA | 148 |
| \#Dash | OPER | 320 |
| \#Dash aspoň | APPS | 1 |
| \#Dash dobře | APPS | 1 |
| \#Dash dokonce | GRAD | 1 |


| coordinating connective or operator | functor of a paratactic structure root <br> node | number of occur- <br> rences |
| :--- | :--- | ---: |
| \#Dash dokonce i | GRAD | 1 |
| \#Dash konkrétně | APPS | 1 |
| \#Dash napřiklad | APPS | 14 |
| \#Dash nikoliv | ADVS | 1 |
| \#Dash proto | CSQ | 1 |
| \#Dash predevším | APPS | 1 |
| \#Dash př́padně i | GRAD | 1 |
| \#Dash tedy | APPS | 15 |
| \#Dash tedy ne | CSQ | 1 |
| \#Dash třeba | APPS | 4 |
| \#Dash zejména | APPS | 2 |
| \#Dash zvláš̌̌ | APPS | 1 |
| jedině \#Dash | APPS | 1 |
| nikoliv \#Dash | ADVS | 1 |
| \#Period3 | CONJ | 8 |
| \#Semicolon | APPS | 3 |
| \#Semicolon | CONJ | 1 |
| \#Separ | APPS | 15 |
| \#Separ | CONJ | 124 |
| \#Separ | CONTRA | 3 |
| \#Separ respektive | APPS | 1 |
| \#Separ respektive | CONJ | 2 |
| \#Slash | APPS | 1 |
| \#Slash | CONJ | 178 |
| \#Slash | DISJ | 25 |
| \#Slash | OPER | 1 |
|  |  | 1 |

## Appendix 3. Secondary prepositions

This appendix contains a list of expressions that can be used as secondary prepositions. However, the list is only auxiliary. The expressions in this list do not always represent a secondary preposition in the data (see also Section 8.17.1, "Secondary prepositions"), and at the same time also other expressions (not listed) can be found in the data that are represented as secondary prepositions; it is necessary to consider again whether such expressions are or are not secondary prepositions.

Table 3.1. List of secondary prepositions

| preposition | functor | example |
| :---: | :---: | :---: |
| bez ohledu na+4 | REG | Badatel pracuje s nadšením bez ohledu na plat. |
| bez zřetele k+3 | REG | Úkoly byly zadávány bez zřetele k věku. |
| blízko+2 | LOC | Jsou blizko nás. |
|  | DIR3 | Položil to blizko vázy. |
|  | DIR2 | Prošli blizko Chrudimi. |
| cestou+2 | MEANS | cestou experimentů |
| co do +2 | REG | heslo prázdné co do obsahu |
| do čela+2 | DIR3 | do čela kandidátky |
| doprostřed+2 | DIR3 | Pokutový kop proměnil dělovkou doprostřed branky. |
| dovnitř+2 | DIR3 | Soustředění na detail vtahuje posluchače dovnitř zvukového prostoru. |
| formou+2 | MANN | Doktorandský stupeň lze studovat na fakultě formou stipendia. |
| jménem+2 | SUBS | jménem naši firmy |
| koncem+2 | TWHEN | koncem roku |
| konče+7 | TTILL | konče večeří |
| končíc+7 | TTILL | končic večeří |
| ku prospěchu+2 | BEN | Bylo by to ku prospěchu věci. |
| na místo+2 | SUBS | Dělá to na misto žádouciho zdưrazňování kvality života. |
| namísto +2 | SUBS | Dělá to namisto žádoucího zdůrazňování kvality života. |
| na počest+2 | AIM | Slavili na počest vitězství. |
| na roveň+2 | DIR3 | Staví slovenské samoplátce na roveň ostatních cizinců. |
| naroveň+2 | DIR3 | Staví slovenské samoplátce naroveň ostatnich cizincư. |
| na rozdíl od+2 | CPR | Finanční úřady neočekávají letos na rozdíl od minulého roku návaly při podávání přiznání k dani z přijmů. |
| následkem+2 | CAUS | Přivolaný lékař konstatoval smrt, která nastala následkem mnohačetných zlomenin. |
| na téma+2 | REG | setkání básniků v belgickém Li na téma Poezie - láska |
| na účet+2 | BEN | Přijímají práci na účét domorodců. |
| na úkor+2 | BEN | Zvýhodňoval zaměstnance na úkor státní pokladny. |
| na úrovni+2 | LOC | na úrovni ministerstev |
|  | RSTR | dohoda na úrovni pražských organizací |
| na vrub+2 | BEN | Na vrub reformy lze přičist osm procent. |
| na základě+2 | CRIT | na základě dohody |
|  | CAUS | Ziskal medaili na základě vitězství. |
| na závěr+2 | TWHEN | Vystoupil na závěr diskuse. |
| nedaleko +2 | LOC | Jsou nedaleko nás. |
|  | DIR3 | Položil to nedaleko vázy. |
|  | DIR2 | Prošli nedaleko Chrudimi. |
| nezávisle na+6 | REG | Komunikační systém musí umožňovat využití všech součástí software nezávisle na umistění pracoviště. |
| ohledně+2 | REG | Obdobný pocit mám ohledně demonopolizovaného rozhlasu. |


| preposition | functor | example |
| :---: | :---: | :---: |
| oproti+3 | CPR | Oproti tobě je starý. |
|  | REG | imunní oproti žloutence |
|  | CNCS | oproti očekávání; oproti všem zásadám |
| poblíž+2 | LOC | Jsou pobliž nás. |
|  | DIR3 | Položil to pobliž vázy. |
|  | DIR2 | Prošli poblizz Chrudimi. |
| po boku+2 | LOC | Vystupuje často při reešení resortnich problémů po boku ministrů. |
| počátkem+2 | TWHEN | počătkem dvacátého století |
| počínaje+7 | TSIN | Počinaje dneškem přinese časopis popis několika hranic současného poznání. |
| počínajíc+7 | TSIN | Počinajíc dneškem přinese časopis popis několika hranic současného poznání. |
| po dobu+2 | THL | Zranění si vyžádá léčeni po dobu čtyř týdnů. |
| pomocí+2 | MEANS | Nejmenovaná firma provádí pod silnicí priraz pomocí vody. |
| po stránce +2 | REG | po stránce právnich predpisů |
| postupem+2 | TWHEN | postupem času |
| po vzoru+2 | CRIT | po vzoru Norů |
| pro případ+2 | AIM | pro př́pad potřeby |
| prostřed+2 | LOC | prostřed náměstí |
|  | TWHEN | prostřed léta |
| prostřednictvím+2 | MEANS | Označil podporu středniho podnikáni prostřednictvím Českomoravské záruční a rozvojové banky za neprůhlednou. |
| průběhem+2 | TPAR | Průběhem času (léta) nastaly změny. |
| přiměřeně+3 | CRIT | Poslancování se stalo placenou činností a nároky na jeho vykonávání přiměřeně tomu vzrostly. |
| při prríležitosti +2 | TWHEN | Papež by měl v přišstím roce navštívit Olomouc při přiležitosti svatořečeni blahoslaveného Jana Sarkandra. |
| ruku v ruce s+7 | ACMP | ODS řešila tento problém ruku v ruce s opozicí. |
| se zřetelem k+3 | REG | Pravidla pro volbu prezidenta ale nelze měnit se zřetelem k momentální politické situaci. |
| se zřetelem na+4 | REG | Pravidla pro volbu prezidenta ale nelze měnit se zřetelem na momentální politickou situaci. |
| směrem do +2 | DIR2 | Vydali se směrem do Prahy. |
|  | DIR3 | Postav se směrem do mistnosti. |
| směrem k+3 | DIR2 | Vydali se směrem ku Praze. |
|  | LOC | Leží směrem k oknu. |
|  | DIR3 | Odešel směrem ke dveřím. |
|  | MANN | Působi směrem k poklesu výroby. |
|  | REG | Reprezentovali ho směrem k centru. |
| směrem na+4 | DIR2 | Vydali se směrem na Prahu. |
|  | DIR3 | Podívej se směrem na východ. |
| směrem od +2 | DIR1 | směrem od Prahy |


| preposition | functor | example |
| :---: | :---: | :---: |
| směrem proti +3 | DIR3 | Postavil se směrem proti oknu. |
|  | DIR2 | Prošel směrem proti radnici. |
|  | LOC | Leži směrem proti oknu. |
| s ohledem k+3 | REG | Vars vyvijel od počátku s ohledem k zájmům jeho tří společniků různorodou činnost. |
| s ohledem na +4 | REG | To jsem jí nezaručil s ohledem na pochodující nervy. |
| souběžně s+7 | TPAR | Souběžně s přednáškou probihaly semináře. |
|  | DIR2 | Souběžně se železnicí vedla silnice. |
| současně s+7 | TPAR | Současně s pokračováním mírových jednáni však Palestinci chtějí zahájit velkou propagační kampaň. |
| společně s+7 | ACMP | Vodička přepadl společněs neznámým spolupachatelem jednu listonošku. |
| spolu s +7 | ACMP | Vodička přepadl spolu s neznámým spolupachatelem jednu listonošku. |
| s pomocí+2 | MEANS | Většinou fungují normálně s pomocí silných brýlí či dalšich speciálnich pomůcek. |
| s prrihlédnutím k+3 | REG | Žáci jsou na různé předměty různě přeskupeny s přihlédnutím ke schopnostem. |
| stran+2 | REG | Jednali stran dodávek. |
| s výjimkou+2 | RESTR | $S$ výjimkou Alžirska a Egypta dluhy takřka žádnýz dlužnikư nesplácí. |
| tváří v tvář+3 | DIR3 | Postavil se tváří v tvář Bohu. |
|  | LOC | Stojí tváří v tváŕr problému. |
| úměrně k+3 | CRIT | Hlad koupěchtivých sběratelů po nich roste úměrně k růstu bohatství ve společnosti. |
| úměrně s+7 | CRIT | Hlad koupěchtivých sběratelů po nich roste úměrně s růstem bohatství ve společnosti. |
| uprostřed+2 | LOC | uprostřed náměstí |
|  | TWHEN | uprostřed léta |
| u příležitosti+2 | TWHEN | Tiskovinu vydalo město u přiležitosti svého 850. výročí. |
| uvnitř+2 | LOC | Novináři jsou nezávislý kontrolní orgán uvnitř státu. |
|  | DIR2 | Hranice jdou uvnitř odvětví. |
| v blízkosti+2 | LOC | Nejméně dva minometné granáty vybuchly v neděli večer v blizkosti kostela. |
| v čele+2 | LOC | v čele priovodu |
| v čele s+7 | ACMP | připravený komisív čele s Uhdem |
| v době+2 | TWHEN | $v$ době konáni konference |
| v duchu+2 | CRIT | Pokud jim jde o to, zda budou patřit pod Hradec nebo Pardubice, pak je to myšlenív duchu národních výborui. |
| v důsledku+2 | CAUS | cirhóza jater v důsledku alkoholismu |
| ve formě+2 | MANN | Nepřipadá v úvahu vymáhat rozdil ve formě náhrady škody. |
|  | RSTR | výhra ve formě zájezdu |
| ve prospěch +2 | BEN | Očekává se rozsudek ve prospěch Škodovky |
| ve shodě s+7 | CRIT | Mečiarovo HZDS ve shodě s průzkumy minění ohlašuje svůj návrat $k$ moci. |
| ve smyslu +2 | CRIT | Nebylo tedy cilem vybrat dodavatele stavby ve smyslu bývalé vyhlášky. |


| preposition | functor | example |
| :---: | :---: | :---: |
| ve spojení s+7 | ACMP | Většina skvělých učitelů ve spojení se žvýkačkou ráda mluví o dobytku. |
| ve srovnání s+7 | CPR | V prvni půli letošního roku ve srovnání se stejným obdobím roku loňského stoupl o 47 procent počet útoků na policisty. |
| ve světle+2 | CRIT | Varovné hlasy se ve světle této zprávy zdaji být lichými. |
| ve věci+2 | REG | Homosexuálové nebudou ve věci odškodnění nikterak diskriminováni. |
| ve vztahu k+3 | REG | Ve vztahu k majetku se chovají jinak. |
| ve znamení+2 | MANN | Centrálni trh byl ve znamení akcií KB |
|  | RSTR | Berlinale ve znamení debutio oslovilo diváky. |
| vinou+2 | CAUS | Stává se to vinou odesilatele, který uvede špatnou adresu. |
| vlivem+2 | CAUS | Sochy jsou vlivem ovzduši silně poškozovány. |
| v neprospěch+2 | BEN | Jeho saldo momentálně znív neprospěch ČR. |
| v období 2 | TWHEN | $V$ obdobi deštio mohou zůstávat vysoko v horách. |
|  | LOC | Ocitl se v obdobi rozpadu. |
| v oblasti +2 | LOC | Společnost působí v oblasti kapitálových trhů zhruba rok. |
| v oboru+2 | LOC | Podnikal v oboru kovoprůmyslu. |
| v otázce+2 | REG | $v$ otázce vlastnictví |
| v podobě+2 | MANN | Dochovala se v podobě prekrásného iluminovaného rukopisu. |
|  | RSTR | bariéry v podobě státni správy |
| v poměru k+3 | REG | Částka vynakládaná na výplatu penzí prudce vzrostla v poměru k HDP. |
| v porovnání k+3 | CPR | Obchodní vztahy mezi Českou republikou a Kanadou patřily v minulosti v porovnání k ostatním primyslově vyspělým zemím k okrajovým. |
| v porovnání ${ }^{\text {+ }}$ 7 | CPR | Obchodní vztahy mezi Českou republikou a Kanadou patřily v minulosti v porovnánís ostatními průmyslové vyspélými zemémi k okrajovým. |
| v procesu+2 | TWHEN | Teprve v procesu legislativniho projednávání hledaly, čeho vlastně chtějí věcně docilit. |
|  | LOC | Nacházi se v procesu rozpadu. |
| vprostřed+2 | LOC | vprostřed náměstí |
|  | TWHEN | vprostřed léta |
| v protikladu k+3 | CPR | $v$ protikladu k zahraniční turistice |
| v průběhu+2 | TWHEN | Stalo se to v průběhu cesty. |
|  | TPAR | Dělo se to v průběhu cesty. |
| v případě +2 | REG | $v$ případě Národní galerie |
|  | COND | $v$ připadě nehody, nemoci |
| v rámci+2 | REG | Japonsko v rámci programu podpory telekomunikační infrastruktury vybuduje do roku 2010 celonárodní informační sit' z optických vláken. |
|  | LOC | Jde o ceny průměrné, které se začnou v rámci státu výrazně lišit podle druhu paliva. |
|  | TWHEN | Její privatizace proběhla v rámci 1. vlny. |
| v rozporu s+7 | CRIT | Tento svazek však nebyl v rozporu s platnými předpisy registrován. |
| v řadě+2 | TWHEN | $V$ řadě případio zapominají na jednu věc. |
|  | LOC | Působil v radě redakcí. |
| v souhlase $\mathrm{s}^{+} 7$ | CRIT | Česká televize bude v souhlase s tiskovým zákonem žalovat TV Nova. |


| preposition | functor | example |
| :---: | :---: | :---: |
| v souladu s+7 | CRIT | Česká televize bude v souladu s tiskovým zákonem žalovat TV Nova. |
| v souvislosti $\mathrm{s}+7$ | ACMP | Vyšetřovatelé si v souvislosti s korupčním skandálem přišli vyslechnout i dalšiho svědka. |
|  | REG | trestní oznámení podaná v souvislosti s osobou |
| výměnou za+4 | SUBS | Výměnou za srnku dostali několik bažantů. |
| v zájmu+2 | AIM | v zájmu čeho |
|  | BEN | v zájmu koho |
| v závěru+2 | TWHEN | Porada se konala v závěru roku. |
| v závislosti na+6 | CRIT | Budou sedět v závislosti na velikosti. kanceláře. |
| začátkem +2 | TWHEN | Podle jeho slov důvody k demisi, které začátkem týdne sdělil tisku, trvají. |
| za pomoci+2 | MEANS | Prostitutky v Čechách tak za pomoci hotelových recepčnich a taxikářů přežily režim nevlídných starců. |
| zároveň s+7 | ACMP | Vláda zároveň s růstem počitá... |
|  | TPAR | Zároveň s překladem pišu recenzi. |
| závěrem +2 | TWHEN | Závěrem srpna ziskal závod Pacovských strojiren certifikát německé zkušebny Tüf Bayern. |
| zprostřed+2 | DIR1 | Manželé Havlovi ji vitají u vrátek objetím, novináři zprostřed dvorku otázkami. |
| z titulu+2 | CRIT | Částku vrátí z titulu odpočtu daně. |

## Appendix 4. Non-verbal idiomatic expressions

The list of all non-verbal idiomatic expressions that occur in PDT 2.0.
The first column gives the t-lemma of the governing part of the idiomatic expression, the second column gives the $t$-lemma of the node which represents the dependent part of the idiomatic expression (functor=DPHR).

| bok | po_boku |
| :--- | :--- |
| cik | cak |
| co | bůhví |
| co | dál |
| co | dál_tím |
| čas | svého |
| dále | tak |
| dát | bože |
| dejme | tomu |
| dost | na_tom |
| druh | svého |
| duše | mou |
| hodně | méně |
| hodně | než |
| chtě | nechtě |
| chyba | lávky |
| jádro | pudla |
| jak | bůhví |
| jakž | takž |
| jinak | jak |
| jsoucí | na_štíru |
| kámen | úrazu |
| kdo | jak_pro |
| kladívko | ergo |
| konec | konců |
| nic | z_ničeho |
| pád | tím |
| pečený | vařený |
| pěst | vlastní |
| platný | málo |
| pouštění | žilou |
| pozdě | bycha_honit |
| přece | jen |
| přece | jenom |
| přicházející | v_úvahu |
| přitažený | za_vlasy |
| ruka | v_ruce |
| sám | od_sebe |
| sám | o_sobě |
| sám | pro_sebe |
| samý | pro_sebe |
| sem | tam |
| shoda | okolností |
| stejně | tak |
| široko | daleko |
| šitý | naíru |


| tak | jako_tak |
| :--- | :--- |
| tam | ty |
| trefa | do_černého |
| tvář | v_tvář |
| věk | věků |
| voda | na_mlýn |
| vpadnutí | do_zad |
| všechen | všudy |
| vzatý | na_slovo |
| vzetí | do_-vazby |
| způsob | svým |
| zub | nehty |

## Appendix 5. Verbs and nouns of control

This appendix provides the lists of control verbs and nouns (see Section 9.2.4, "Control"). The lists includes the verbs and nouns that have occurred so far in the annotated data. The verbs and nouns listed below are represented as participating in control relations in the data (if they enter into such relations). Control relations of the verbs and nouns (and also adjectives) that are not included in the lists below are represented inconsistently, or they are not represented at all.

### 5.1. Verbs of control

The list of control verbs (i.e. one-word control predicates) which are represented in the data as taking part in control relations of type 1, i.e. constructions verb + infinitive (see Section 9.2.4.3, "Types of control constructions and the issue of nominalizations").

NB! All modal verbs behave like control verbs if they are represented by a separate node according to the annotation rules described in Section 6.9.1.1, "Modal predicates". These verbs are not listed here.
bavit
bát_se
bránit
bránit_se
cítit_se
dařit_se
dát
dojít
dokázat
donutit
dopomáhat
dopomoci
doporučit
doporučovat
dopřát_si
dovolit
dovolit_si
dovolovat
dovolovat_si
hrozit
chodit
chtít
chystat_se
jet
jezdit
jít
koukat
lze
mínit
mít
motivovat
namáhat_se
napadnout
napomoci
nařídit
naučit
naučit_se
nechat

```
nutit
obtěžovat_se
obávat_se
odcházet
odejít
odhodlat_se
odlétat
odmítat
odmítnout
odnaučit_se
odvažovat _se
odvážit_se
opomenout
opravňovat
ostýchat_se
osvědčovat_se
plánovat
podařit_se
pokoušet_se
pokusit_se
pomoci
pomáhat
potěšit
povolit
povolovat
pověřit
pověřovat
požadovat
předepsat
předsevzít_si
přestat
přestávat
přesvědčit
přicházet
přijet
přijít
přijíždět
přikazovat
přikázat
přimět
přinutit
přislíbit
přát_si
přílušet
radit
rozhodnout_se
rozmyslit_si
rozpakovat_se
slibovat
slíbit
snažit_se
spěchat
stačit
stát
stihnout
stydět_se
svést
škodit
```

```
toužit
troufat_si
troufnout_si
učit_se
učit
ukládat
ukázat_se
uložit
umožnit
umožňovat
unavovat
určit
usilovat
uškodit
uvolit se
uznat
vadit
velet
vydržet
vyhýbat_se
vyplatit_se
vypomoci
vyžadovat
váhat
zabraňovat
zabránit
zajít
zakazovat
zakázat
zamýšlet
zapomenout
zapomínat
zapovídat
zasloužit
zasloužit_si
zatoužit
zavazovat
zavázat
zavázat_se
začínat
začít
zbýt
zbývat
zdráhat_se
zdát_se
zkoušet
zkusit
zmocnit
znamenat
znemožnit
znemožňovat
zvládnout
zvyknout_si
zůstat
zůstávat
```


### 5.2. Complex control predicates

The list of complex control predicates that are represented in the data as participating in control relations of type 1, i.e. complex predicate + infinitive (see Section 9.2.4.4.1, "Infinitive dependent on the nominal part of a complex control predicate").
cítit potřebu
dát možnost
dát právo
dát příležitost
dávat možnost
dávat naději
dávat právo
dávat šanci
dostat doporučení
dostat prostor
dostat rozkaz
dostat úkol
dostávat příležitost
mít cíl
mít čas
mít čest
mít důvod
mít chut'
mít mechanismus
mít motivaci
mít možnost
mít naději
mít obavu
mít odvahu
mít oprávnění
mít potěšení
mít potíž
mít potřebu
mít povinnost
mít povolení
mít pravomoc
mít právo
mít problém
mít předpoklad
mít příležitost
mít schopnost
mít sílu
mít sklon
mít snahu
mít šanci
mít tendenci
mít touhu
mít úkol
mít zájem
nabízet_se možnost
najít odvahu
náležet právo
naskýtat_se možnost
naskytnout_se možnost
otevírat možnost
otevřít možnost

```
padnout rozhodnutí
pocítit potřebu
pocit'ovat potřebu
podávat návod
poskytnout možnost
projevit nezájem
projevit prání
projevit zájem
přijít o možnost
přijít o právo
příslušet oprávnění
sbírat odvahu
učinit pokus
ukládat povinnost
vydat rozkaz
vyjádřit odhodlání
vyjádřit ochotu
vyjádřit přání
vyjádřit připravenost
vyjádřit vůli
vyslovit požadavek
vyvinout snahu
vzniknout povinnost
zanikat povinnost
získat možnost
ztratit chut'
ztratit možnost
A list of complex predicates that are recorded in the annotated data with control type 3, i.e. constructions predicate + nominalization of an infinitive (see Section 9.2.4.6.1.1, "A nominalized infinitive dependent on a complex control predicate").
```

Table 5.1. Control type 3 of complex predicates

| complex predicate | possible forms of nominalization of infinitive |
| :---: | :---: |
| cítit potřebu | (2) |
| dát možnost | (2) |
| dát příležitost | (k+3) |
| dávat možnost | (2) |
| dávat právo | (na+4) |
| dávat prríležitost | (k+3) |
| dostat možnost | (2) |
| dostat povolení | (k+3) |
| dostat zákaz | (2) |
| mít čas | (k+3, na+4) |
| mít důvod | (k+3) |
| mít chut' | (do+2) |
| mít možnost | (2, k+3, na+4) |
| mít naději | (na+4) |
| mít nárok | (na+4) |
| mít potíž | (s+7) |
| mít povolení | (k+3) |
| mít právo | (2, k+3, na+4) |
| mít problém | (s+7) |
| mít prostor | (na+4) |
| mít příležitost | (k+3) |
| mít sílu | (k+3, na+4) |
| mít sklon | (k+3) |
| mít šanci | (na+4) |
| mít tendenci | (k+3) |
| mít zájem | (o+4) |
| najít možnost | (2) |
| najít odvahu | (na+4) |
| otevírat prostor | (pro+4) |
| otevřít prostor | (pro+4) |
| podat pokyn | (k+3) |
| poskytovat možnost | (2) |
| projevit zájem | (o+4) |
| projevovat zájem | (o+4) |
| učinit pokus | (o+4) |
| vydat pokyn | (k+3) |
| vydat príkaz | (k+3) |
| vydat zákaz | (2) |
| vyjádřit ochotu | (k+3) |
| vyvíjet tlak | (k+3) |


| complex predicate | possible forms of nominalization of infinitive |
| :--- | :--- |
| vzniknout povinnost | $(2)$ |
| zanikat nárok | $(\mathrm{na}+4)$ |
| zanikat právo | $(2)$ |
| získat povolení | $(\mathrm{k}+3)$ |
| získat příslib | $(2)$ |
| získat slib | $(2)$ |
| získávat právo | $(\mathrm{na}+4)$ |
| ztrácet příležitost | $(\mathrm{k}+3)$ |

### 5.3. Control nouns

The list of control nouns (nominalized forms of control verbs) that are represented in the data as participating in control relations of type 2, i.e. constructions: noun + infinitive (see Section 9.2.4.5.1, "Infinitive dependent on a noun derived from a control verb").

Note: nodes representing these nouns are not assigned the functor CPHR, which means they are not part of complex predicates.

## cesta

cíl
čas
dar
dilema
důvod
hlas
choutka
chut'
konsens
krok
mánie
motivace
možnost
návod
nechut'
neochota
neschopnost
nevůle
nutnost
odhodlání
odvaha
ochota
oprávnění
plán
pokus
postup
potřeba
povinnost
povolení
požadavek
pravomoc
právo
problém
prostor

```
prostředek
přání
překážka
příležitost
připravenost
riziko
role
rozhodnutí
rozhodování
rozkaz
řešení
sen
schopnost
síla
sklon
slib
snaha
svoboda
šance
tendence
tlak
touha
tradice
úkol
umění
úmysl
úsilí
váhání
vhodnost
volba
vůle
výhoda
zájem
zákaz
záměr
záminka
zásada
závazek
zdatnost
způsobilost
způsob
```


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[^0]:    Slovo „šebah" znamená původně ,,sedm". (=lit. Word "shebah" means originally "seven".)

[^1]:    Ano, přijdeme. (=lit. Yes, we_will_come.)

