



# A Comprehensive Account of Reflexives in Czech: The Valency Perspective

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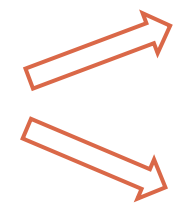
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# Motivation

*Sourozenci se obviňují z porážky.*  
 siblings REFLclitic accuse of defeat  
 'The siblings accused themselves // each other of the defeat.'



**reflexivity**

**reciprocity**

# Motivation

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**reflexivity**



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*V Národním divadle se hrála Prodaná nevěsta.*

in National theatre REFLclitic played Bartered Bride

'The Bartered Bride was played in the National Theatre.'



**diathesis**

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'The Bartered Bride was played in the National Theatre.'



**diathesis**

*Děti se vzbudily brzo ráno.*

children REFLclitic awoke early morning

'Children woke up early in the morning.'



**reflexive verb lemma**

**GOAL:** Systematic, comprehensive and economical account of Czech reflexives

# Introduction

- Ambiguity of reflexives
  - Faltz, 1985; Geniušienė, 1987; Kemmer, 1993; Frajzyngier – Walker, 2000a, 2000b; König – Kokutani, 2006; Nedjalkov, 2007; König – Gast, 2008; Evans et al., 2011;
  - for Czech: Havránek, 1928; Komárek et al., 1986; Karlík, 1999; Oliva, 2001; Medová, 2009; Veselý, 2018;
  - within FGD: Panevová, 1999, 2001, 2008
- Reflexives in Czech
  - Clitic forms: *se/si*
  - Long forms: *sebe/sobě/sebou*
- Problem with categorization
  - Pergler, 2015; Karlík, 2000; Oliva, 2000; Esvan, 1997; Veselý, 2018

# Reflexives in Czech

- Functional Generative Description (FGD)
  - Sgall et al., 1986; Panevová et al., 1994
- Classification of the reflexives in FGD based on their functions
  - ⇒ functionally equivalent reflexives have the same status
- Functions:
 

A. Reflexive pronoun	⇒	both clitic and long forms
B. Reflexive verb form	}	clitic forms
C. Reflexive verb lemma		
- Generation of well-formed constructions with reflexives, with respect to
 

lexicon and grammar

# A. Reflexive Pronoun

# Reflexive Pronoun

- It has clitic forms *se/si* and long forms: *sebe/sobě/sebou*
  - Clitic forms change into long forms when stressed
- It fills one valency position of a predicate (V, N, Adj, Adv)
- It marks referential identity btw the filled position and another expression

⇒ **reflexivity or reciprocity**

..., *jak je důležité naslouchat přírodě i **sobě** navzájem.* (syn v7)

..., how is important listen nature and **REFLlong.dat** mutually

'..., how important it is to listen to the nature as well as to each other.'

..., *jak je důležité naslouchat **si** navzájem.*

..., how is important listen **REFLclitic.dat** mutually

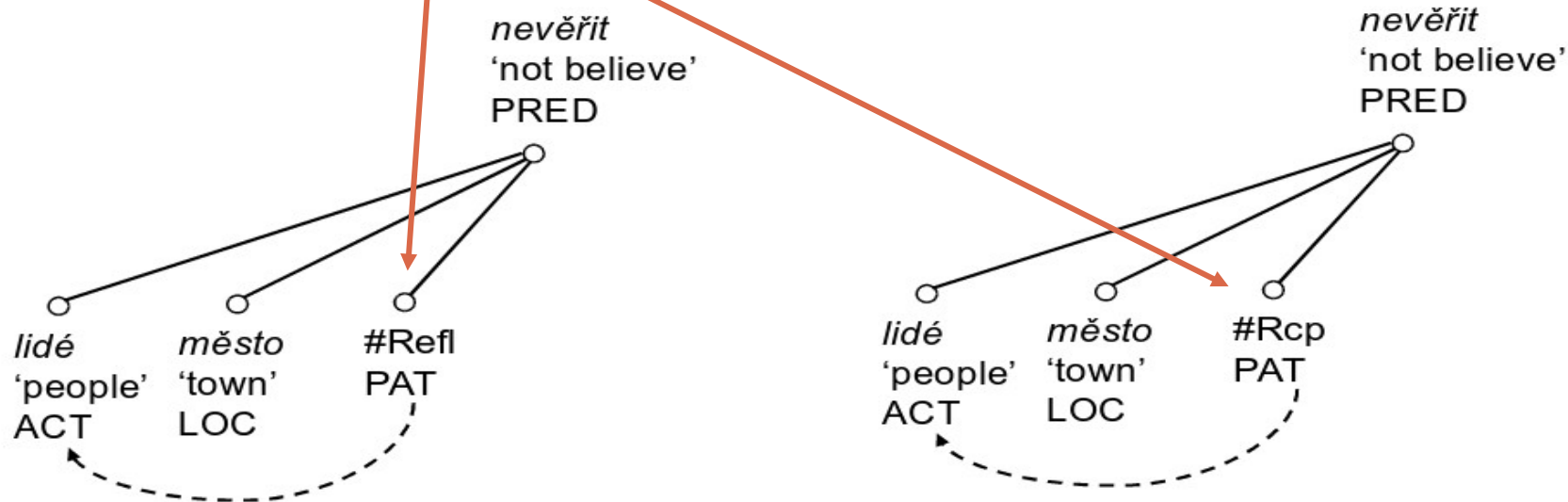
'..., how important it is to listen to each other.'



# Reflexive Pronoun

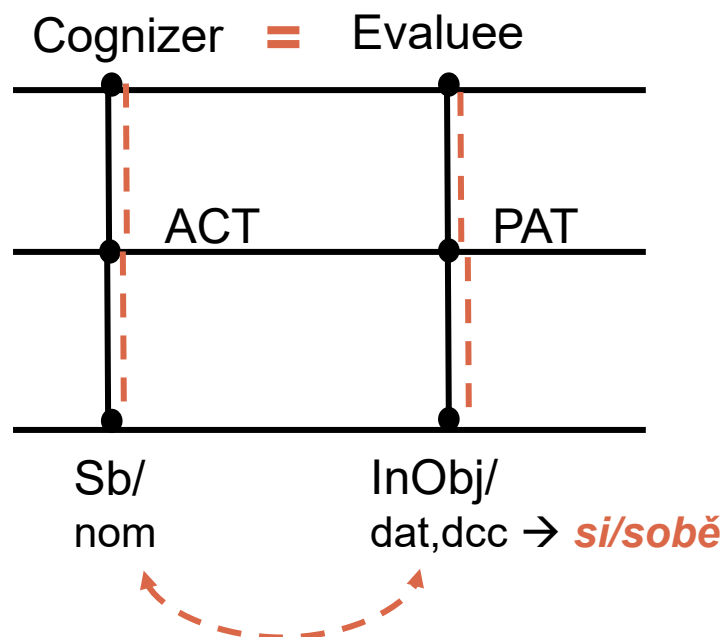
*věřit* 'to believe': ACT<sub>nom</sub> PAT<sub>dat,dcc</sub>

*Lidé ve městě si nevěří.*  
 people in town REFLclitic.dat not believe  
 'People in towns do not believe themselves // each other.'



# Reflexivity

- Number and type of valency complementations preserved
- Mapping of semantic participants onto valency complementations preserved
- Two semantic participants with a single referent  $\Rightarrow$  coreference



*Jan si věří.*  
 John REFLclitic.dat believe  
 'John does believe himself.'

*věřit* 'to believe':

$ACT_1 PAT_{3,dcc} \rightarrow ACT_1 PAT_{si/sobě}$

# Example: Rule for Reflexivity

- Morphosyntactic operation of **reflexivization** applied to a valency frame of a verb
  - regular morphosyntactic patterns captured by formal rules in grammar
  - applicability provided with each relevant verb in lexicon

Reflexivity of dative complementation	Basic rule
condition	reflex: coref3 X1 & Y3
Y	3 → <i>si/sobě</i> other forms → ∅
obligatoriness emphasizing/desambiguation	Y <i>sám</i>

*Jan si věří.*  
 John **REFLclitic.dat** believe  
 'John does believe himself.'

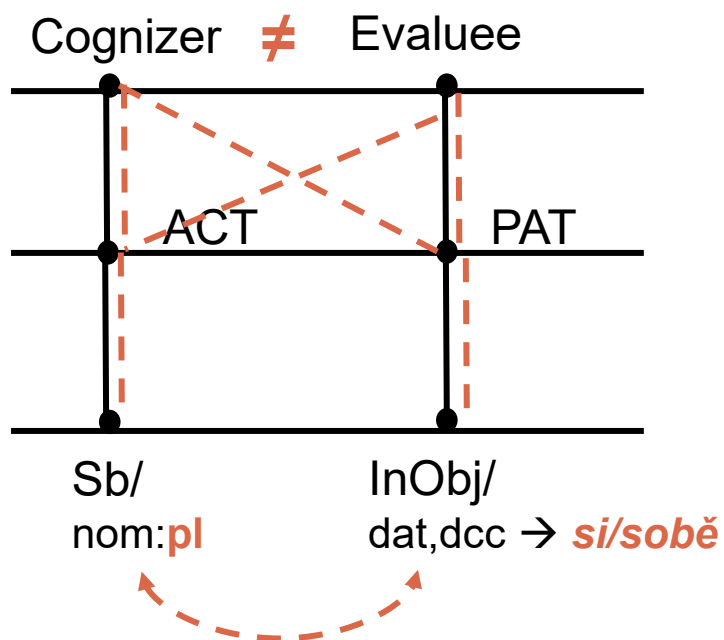
*věřit* 'to believe':

$ACT_1 PAT_{3,dcc} \rightarrow ACT_1 PAT_{si/sobě}$

# Reciprocity

- Semantic relation of mutuality btw two (sporadically three) semantic participants of a predicate (V, N, Adj, Adv)
- Reflexive pronoun (the expression *jeden druhý* 'each other') expressing mutuality

⇒ coreference



*Jan a Marie si navzájem věří.*  
 John and Mary REFLclitic.dat mutually believe  
 'John and Mary believe each other.'

*Jan věří Marii a zároveň Marie věří Janovi.*  
 'John believes Mary and Mary believes John.'

*věřit* 'to believe':

ACT<sub>1</sub> PAT<sub>3,dcc</sub> → ACT<sub>1:plural</sub> PAT<sub>si/sobě</sub>

# Reciprocity

- Morphosyntactic operation of reciprocalization applied to a frame of a predicate
  - regular morphosyntactic patterns captured by formal rules in grammar
  - applicability provided with each relevant verb in lexicon

# Example: Rule for Reciprocity

Reciprocity of nominative ACT	Basic rule
condition	recipr: ACT-Y ACT1 & Y
agreement ACT	number+gender+person, ACT * → 1:plural

Reciprocity of dative complementation	Supplementary rule
condition	recipr: ACT-Y ACT1 & Y3
Y  obligatoriness emphasizing/desambiguation	3 → <i>si/sobě</i> other forms → ∅ Y <i>navzájem, vzájemně</i> and/or <i>mezi sebou</i>

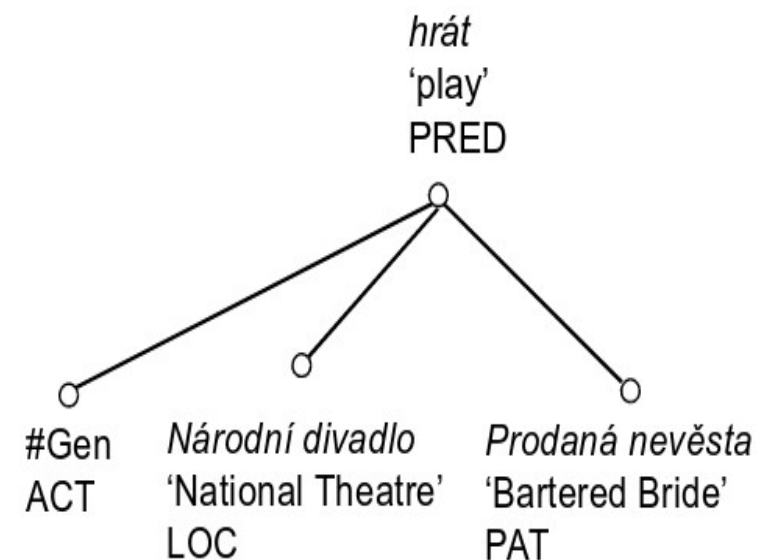
*věřit* 'to believe': ACT<sub>1</sub> PAT<sub>3,dcc</sub> → ACT<sub>1:plural</sub> PAT<sub>*si/sobě*</sub>

## B. Reflexive Verb Form

# Reflexive Verb Form

- Only clitic form *se*
- Voice marker: deagentive and dispositional diatheses (middle alternation)
  - Shift of ACT from subject of a verb

V Národním divadle *se* hrála Prodaná nevěsta.  
 in National theatre REFLclitic played Bartered Bride  
 'The Bartered Bride was played in the National Theatre.'



- Syntactic changes represented by formal rules in grammar
- Applicability captured in lexicon with individual verbs



# Example: Rule for Deagentive Diathesis

Deagentive diathesis		Basic rule
condition	diat: deagent ACT1	
verb form	<i>se, si</i> → ∅ → 3rd person, active voice + <i>se</i>	
agreement	number+gender, X	
ACT	* → ∅	

Deagentive diathesis of transitive verbs		Supplementary rule
condition	diat: deagent X4	
X	4 → 1	
Y	Jako+4 → jako+1, jako+adj4 → jako+adj1, adj4 → adj1	

*hrát* 'to play': ACT<sub>1</sub> PAT<sub>4</sub> → ACT<sub>∅</sub> PAT<sub>1</sub>

## C. Reflexive Verb Lemma

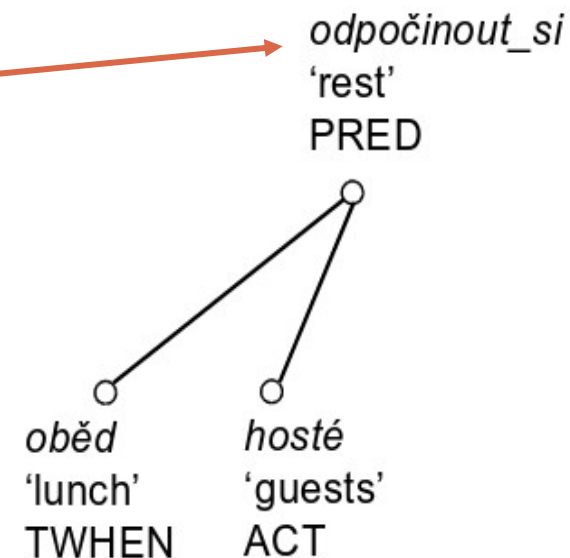
# Reflexive Verb Lemmas

- Only clitic forms *se/si*
- It does not fill a valency position of a verb
  - **Reflexive tantum verbs** (inherently reflexive verbs)  
*blížít se* 'to approach', *odpočínout si* 'to have a rest'
  - **Derived reflexive verbs**  
*budit se* 'to wake up' ← *budit* 'to wake',  
*pomáhat si* 'to help each other' ← *pomáhat* 'to help'
  - **Optional reflexive verbs**  
*myslet (si)* 'to think', *začínat (se)* 'to start'

# Reflexive Verb Lemmas

- Reflexives represented as a part of verb lemmas in lexicon

*Po obědě si hosté odpočinuli.*  
 after lunch REFLclitic guests rested  
 'Guests had a rest after the lunch.'



## VALLEX 3.5

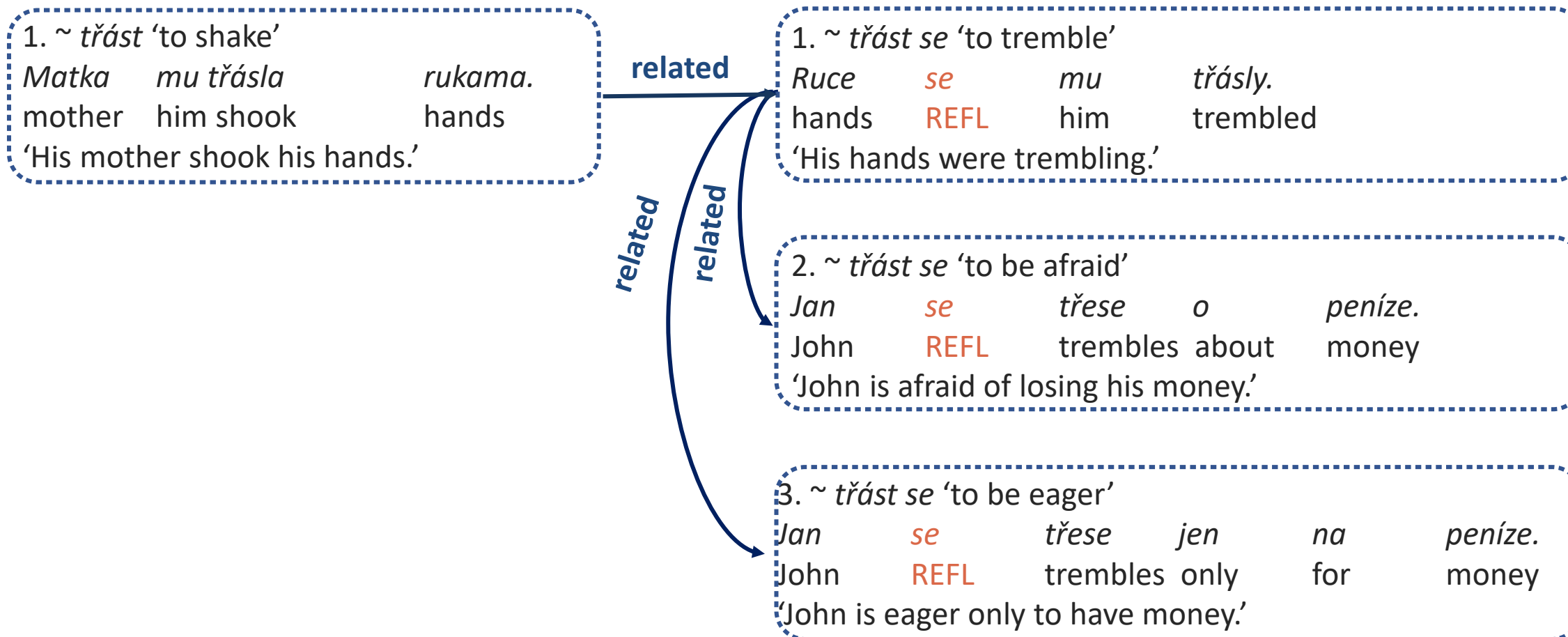
Reflexive verb	Lexical units	Lemmas
Obligatory <i>se</i>	1 396	1 332
Obligatory <i>si</i>	161	189
Optional <i>se</i>	20	18
Optional <i>si</i>	91	105

Reflexive verb	Lexical units	Lemmas
tantum	221	198
derived	1 336	1 323

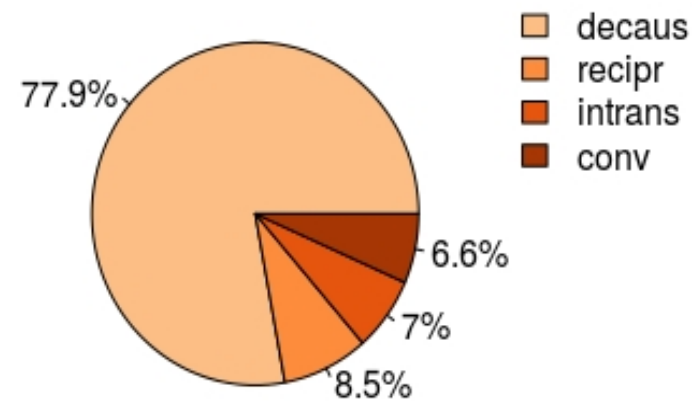
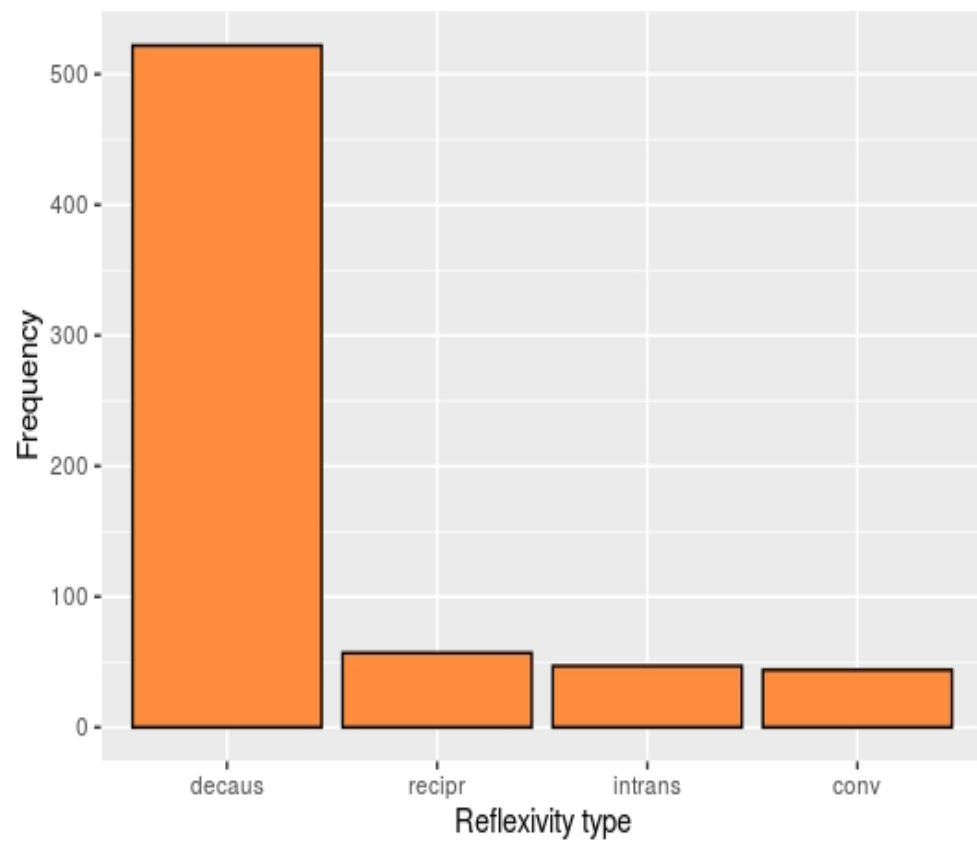
# Derived Reflexive Verb Lemmas

- Reflexives *se/si* as middle markers
  - Kemmer, 1993; König – Gast, 2008; for Czech Panevová 2008; Štícha et al. 2013
- Typically systemic changes in meaning and valency of verbs
- Four main types reflecting a relation btw. irreflexive and reflexive verb
  - **decausative, reciprocal, conversive, intransitive**
- Most of them represent metaphorical or metonymical shifts
  - related to reflexive verbs

# Example of the Reflexive Verb



# Frequency of Derived Reflexive Lemmas in VALLEX



# Decausative Type

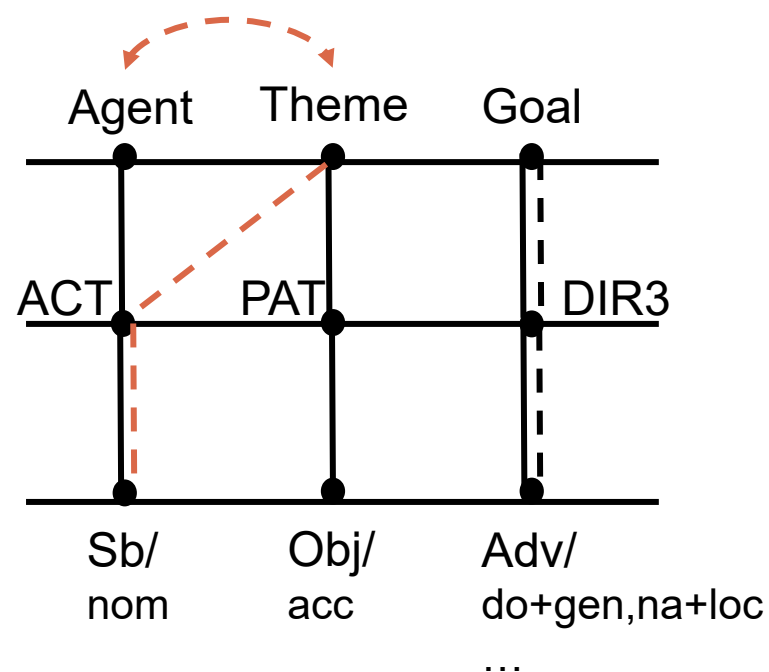
- Both reflexive derivational morphemes *se* and *si*
- An entity affected by an action of irreflexive verbs is shifted to subject
- Initiating and affected entities conflated
- The valency position of the affected entity is dropped from valency frames
  - ⇒ valency frames of reflexive verbs reduced by one position
- Other valency positions are preserved in valency frames



# Decausative Type with *se*

Type	decausative <i>se</i>
Action	Irreflexive verb lemma + <i>SE</i> $X_{\text{acc instr s+instr}} \rightarrow Y_{\text{nom}}$

X ... PAT, Y ... ACT



*nalepit* 'to stick': ACT<sub>1</sub> PAT<sub>4</sub> DIR3<sub>do+2,...</sub>

*Matk-a nalepovala fotk-y do alb-a.*  
 mother-NOM stuck photos-ACC to album-GEN  
 'Mother stuck photos to the album.'

*SE*

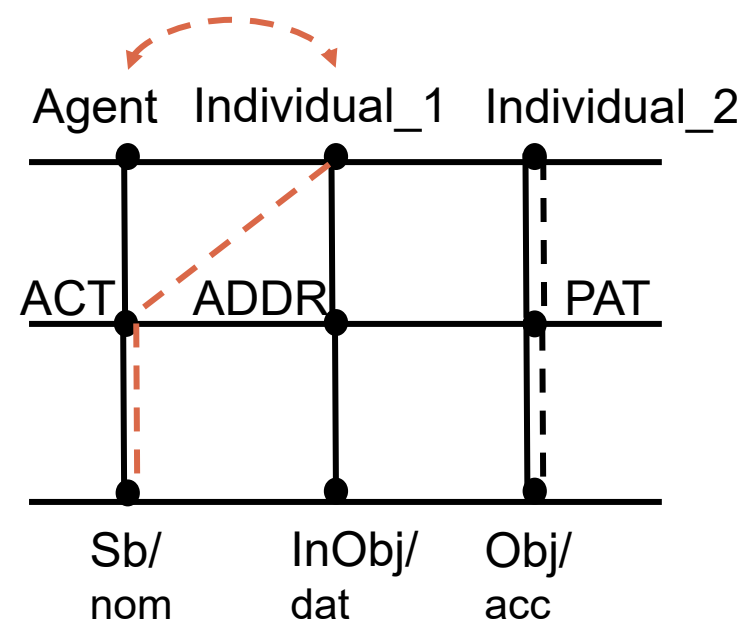
*nalepit se* 'to stick': ACT<sub>1</sub> DIR3<sub>na+4, ...</sub>

*Odstřížk-y se nalepily na kabát.*  
 clippings-NOM REFL stuck to coat-ACC  
 'Clippings stuck to his coat.'

# Decausative Type with *si*

Type	decausative <i>si</i>
Action	Irreflexive verb lemma + <i>SI</i> $X_{\text{dat}} \rightarrow Y_{\text{nom}}$

X ... ADDR | PAT,  
Y ... ACT



*namlouvat* 'to pair sb off with sb': ACT<sub>1</sub> ADDR<sub>3</sub> PAT<sub>4</sub>

*Rodič-e*                      *Petr-ovi*                      *namlouvali*                      *Mari-i.*  
parent-NOM                      Peter-DAT                      paired off                      Mary-ACC  
'Parents paired Peter off with Mary.'

*SI*

*namlouvat si* 'to pair off with sb': ACT<sub>1</sub> PAT<sub>4</sub>

*Petr-∅*                      *si*                      *namlouval*                      *Mari-i.*  
Peter-NOM                      REFL                      paired off                      Mary-ACC  
'Peter paired off with Mary.'

# Decausative Semantic Types

527 LUs represented by 730 verb lemmas, contained in 417 lexemes  
 150 out of them manually analyzed

Decausative type	Number of LUs	Example
Spontaneous events	85	<i>polepšit se</i> 'to change one's ways' ← <i>polepšit</i> 'to reform'
Translational motion	35	<i>hnát se</i> 'to hurry' ← <i>hnát</i> 'to rush sb into'
Nontranslational motion	17	<i>položít se</i> 'to lie down' ← <i>položít</i> 'put down'
Change in body posture	12	<i>opřít se</i> 'to lean' ← <i>opřít</i> 'to lean'
Grooming	1	<i>přípravit se</i> 'to get ready' ← <i>přípravit</i> 'to prepare'

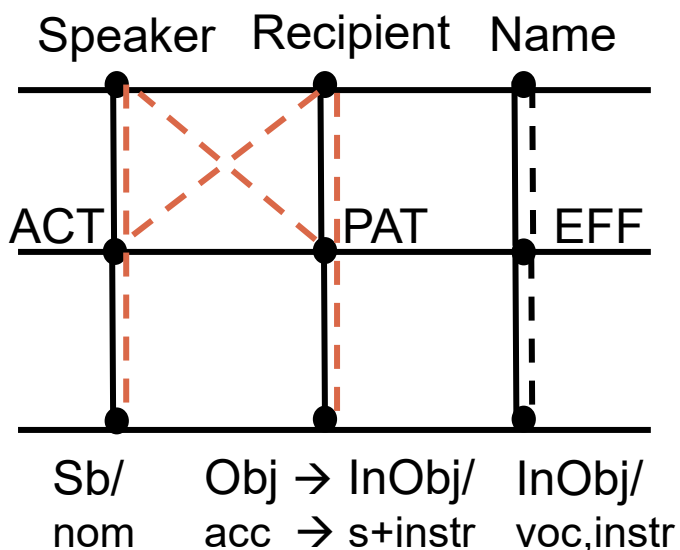
# Reciprocal Type

- Both reflexive derivational morphemes *se* and *si*
- They derive reflexive verbs with inherent reciprocal meaning from irreflexive verbs with asymmetrical meaning
- A less prominent valency position with irreflexive verbs changes  
 ⇒ into the **prepositional group *s+Instr***
- Number of valency positions is preserved

# Reciprocal Type with *se*

Type	reciprocal <i>se</i>
Action	Irreflexive verb lemma + <i>SE</i> $X_{acc} \rightarrow X_{s+instr}$

X ... ADDR|PAT



*oslovovat* 'to call': ACT<sub>1</sub> PAT<sub>4</sub> EFF<sub>5,7</sub>

*Jan-∅ oslovoval koleg-u křestním jmén-em.*  
 John-NOM called colleague-ACC first name-INSTR  
 'John called his colleague first name.'

*SE*

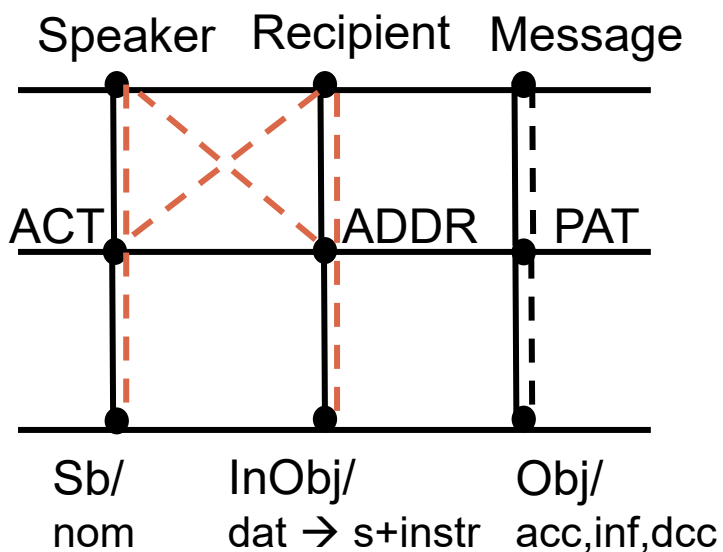
*oslovovat se* 'to call each other': ACT<sub>1</sub> PAT<sub>s+7</sub> EFF<sub>5,7</sub>

*Jan-∅ se oslovoval s koleg-ou křestním jmén-em.*  
 John-NOM REFL called with colleague-INSTR first name-INSTR  
 'John and his colleague called each other with first name.'

# Reciprocal Type with *si*

Type	reciprocal <i>si</i>
Action	Irreflexive verb lemma + <i>SI</i> $X_{\text{dat}} \rightarrow X_{\text{s+instr}}$

X ... ADDR | PAT



*slíbit* 'to promise': ACT<sub>1</sub> ADDR<sub>3</sub> PAT<sub>4,inf,dcc</sub>

*Petr-∅*                      *slíbil*                      *Mari-i*                      *věrnost.*  
Peter-NOM                      promised Mary-DAT                      fidelity-ACC  
'Peter promised Mary fidelity.'

*SI*

*slíbit si* 'to promise': ACT<sub>1</sub> ADDR<sub>s+7</sub> PAT<sub>4,inf,dcc</sub>

*Petr∅*                      *si*                      *slíbil*                      *s*                      *Mari-í*                      *věrnost-∅*  
Peter-NOM                      REFL                      promised with                      Mary-INSTR                      fidelity-ACC  
'Peter and Mary promised fidelity to each other.'

# Reciprocal Semantic Types

57 LUs represented by 76 verb lemmas, contained in 56 lexemes

Reciprocal type	Number of LUs	Example
Social actions	19	<i>navštěvovat se</i> 'to visit each other' ← <i>navštěvovat</i> 'to visit'
Communication	12	<i>povídat si</i> 'to talk with each other' ← <i>povídat</i> 'to say'
Antagonistic actions	8	<i>bít se</i> 'to fight' ← <i>bít</i> 'beat'
Affectionate actions	6	<i>líbat se</i> 'to kiss each other' ← <i>líbat</i> 'to kiss'
Exchange	6	<i>střídat se</i> 'to change' ← <i>střídat</i> 'to change'
Agreement	4	<i>rozumět si</i> 'to get along' ← <i>rozumět</i> 'to understand'
Physical contact	2	<i>protínat se</i> 'to cross each other' ← <i>protínat</i> 'to cross'

# Conversive Type

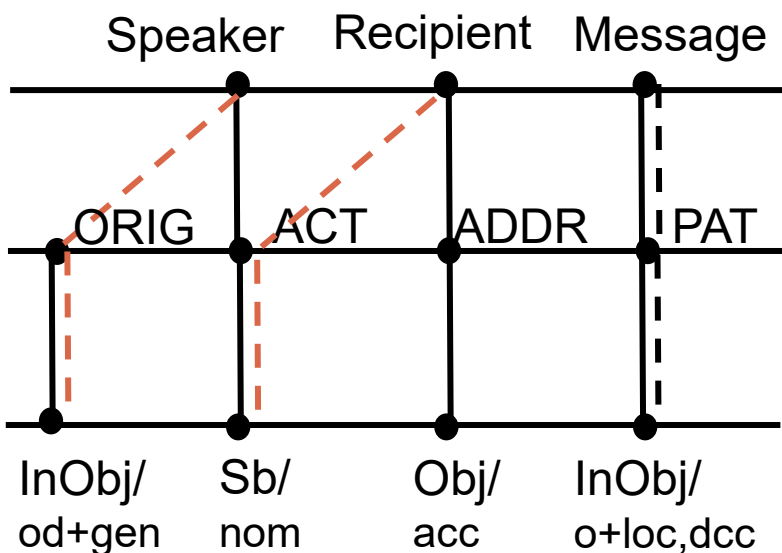
- Reflexive derivational morpheme *se*, sporadically also the morpheme *si*
- It derives reflexive verbs from irreflexive ones
  - ⇒ the same situation but presented from a different perspective
- Number of valency positions is preserved
- Conversion affects subject



# Conversive Type with *se*

Type	conversive, verbs of exchange
Action	Irreflexive verb lemma + <i>SE</i> $ACT_{nom} \rightarrow X_{od+2,z+2}$ $Y_{acc} \rightarrow ACT_{nom+instr}$

X ... PAT|ORIG, Y ... ADDR|PAT



*informovat* 'to inform':  $ACT_1$  ADDR<sub>4</sub> PAT<sub>o+6,dcc</sub>

*Spoluhráč-i Petr-a informovali o průběh-u utkání.*  
 teammates-NOM Peter-ACC informed about course-LOC match  
 'Teammates informed Peter about the course of the match.'

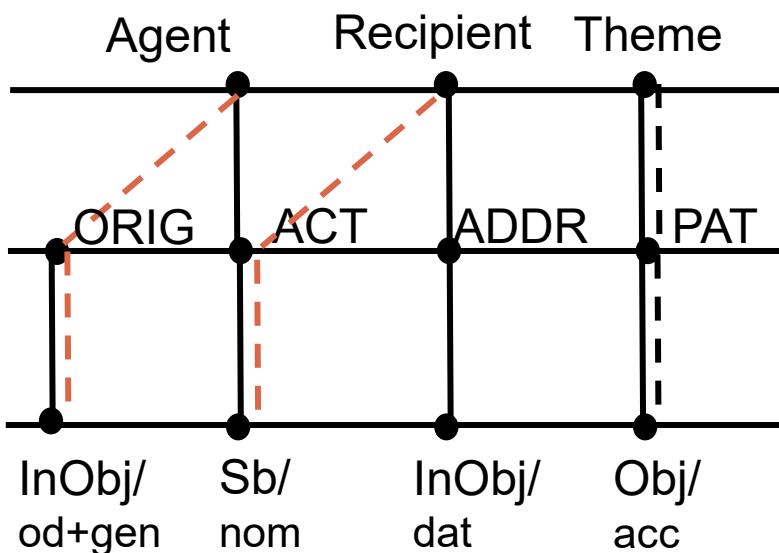
*SE*

*informovat se* 'to get information':  $ACT_1$  PAT<sub>na+4,o+6,dcc</sub> ORIG<sub>od+2</sub>

*Petr-∅ se informoval od spoluhráč-ů na průběh-∅ utkání.*  
 Peter-NOM REFL informed from teammates-GEN for course-ACC match  
 'Peter got informed from his teammates on the course of the match.'

# Conversive Type with *si*

Type	conversive, verbs of exchange
Action	Irreflexive verb lemma + <i>SI</i> $ACT_{nom} \rightarrow ORIG_{od+2}$ $ADDR_{dat} \rightarrow ACT_{nom}$



*půjčit* 'to lend':  $ACT_1 ADDR_3 PAT_4$

*Rodič-e*                      *půjčili*                      *Petr-ovi*                      *aut-o.*  
 parents-NOM                      lent                      Peter-DAT                      car-ACC  
 'Parents lent a car to Peter.'

*SI*

*půjčit si* 'to borrow':  $ACT_1 PAT_4 ORIG_{od+2}$

*Petr-ø*                      *si*                      *půjčil*                      *od*                      *rodič-ů*                      *aut-o.*  
 Peter-NOM                      REFL                      borrowed from                      parents-GEN                      car-ACC  
 'Peter borrowed a car from his parents.'

# Conversive Semantic Types

46 LUs represented by 67 verb lemmas, contained in 44 lexemes

Coversive type	Number of LUs	Example
Emotion	29	<i>sužovat se</i> 'to be annoyed' ← <i>sužovat</i> 'to annoy'
Moving_in_place	7	<i>třást se</i> 'to quiver' ← <i>třást</i> 'to shake'
Cognition	4	<i>zajímat se</i> 'to be interested in' ← <i>zajímat</i> 'to interest'
Exchange	4	<i>půjčit si</i> 'to borrow' ← <i>půjčit</i> 'to lend'

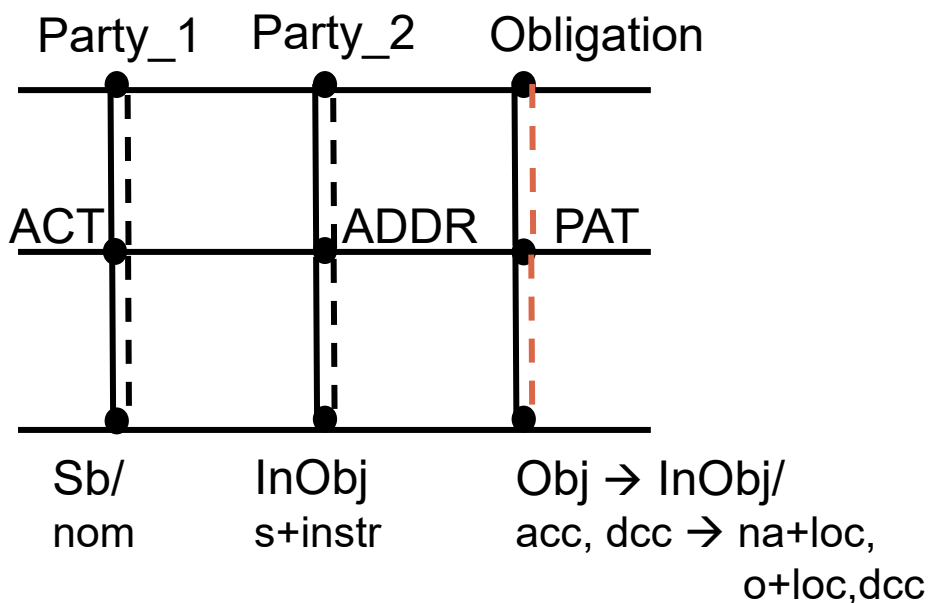
# Intransitive Type

- Reflexive derivational morpheme *se*
- It derives reflexive verbs from irreflexive ones with the same meaning
- Number of valency positions is preserved
- The same situation is surface syntactically structured in a different way  
 ⇒ changes affect only surface structure

# Intransitive Type

Type	intransitive
Action	Irreflexive verb lemma + <i>SE</i> $X_{acc} \rightarrow X_{gen dat instr prepositional\_group \emptyset}$

X ... PAT | EFF



*domluvit* 'to arrange': ACT<sub>1</sub> ADDR<sub>s+7</sub> PAT<sub>4,dcc</sub>

*Petr-∅ domluvil s bank-ou půjčka-u.*  
 Peter-NOM agreed with bank-INSTR loan-ACC  
 'Peter arranged a loan in a bank.'

*SE*

*domluvit se* 'to arrange': ACT<sub>1</sub> ADDR<sub>s+7</sub> PAT<sub>na+6,o+6,dcc</sub>

*Petr-∅ se domluvil s bank-ou na půjčka-e.*  
 Peter-NOM REFL agreed with bank-INSTR on loan-LOC  
 'Peter arranged a loan in a bank.'

# Intransitive Semantic Types

47 LUs represented by 80 verb lemmas, contained in 44 lexemes

Intransitive type	Number of LUs	Example
Interlocution	15	<i>zmínit se</i> 'to mention' ← <i>zmínit</i> 'to mention'
Physical_contact	14	<i>tahat se</i> 'to pull' ← <i>tahat</i> 'to pull'
Cognition	8	<i>pamatovat se</i> 'to remember' ← <i>pamatovat</i> 'to remember'
Exchange	7	<i>odměnit se</i> 'to reward' ← <i>odměnit</i> 'to reward'
Proximity	3	<i>dotáhnout se</i> 'to catch up with' ← <i>dotáhnout</i> 'to catch up with'

# Conclusion

- Systematic, comprehensive and economical account of the Czech reflexives includes reflexivity, reciprocity, deagentive and dispositional diatheses, and reflexive verb lemmas (reflexive tantum verbs and derived reflexive verbs)
- **Reflexivity, reciprocity, deagentive and dispositional diatheses**
  - Their applicability captured in lexicon
  - Grammatical rules in grammar
- **Reflexive verb lemmas** in lexicon
  - *SE* and *SI* as derivational means associated with systemic syntactic changes, often accompanied with semantic changes
  - Choice of *SE* and *SI* conditioned by syntactic properties of irreflexive base verbs
  - Links to their irreflexive counterparts marked by the function of the reflexive: **decaus, recipr, conv, intrans**



**Thank you for your attention!**  
**???**