

# Haplogy of reflexive clitics in Czech

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University of Göttingen  
4 May 2012

# Outline of the talk

- 1 Czech clitics
- 2 Climbing
- 3 Haplology
- 4 Formalization

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# Czech Clitics

- Short morphemes, mostly monosyllabic
  - auxiliaries, weak pronouns, short adverbs, ...
- (1) Opravit<sub>2</sub> jsem<sub>0</sub> se<sub>1</sub> mu<sub>2</sub> to<sub>2</sub> včera snažil<sub>1</sub> marně.  
 to-repair aux<sub>1sg</sub> refl<sub>A</sub> him<sub>D</sub> it<sub>A</sub> yesterday tried fruitlessly  
 ‘I tried to repair<sub>C</sub> it for him yesterday WITHOUT SUCCESS<sub>R</sub>.’
- In many aspects they are similar to clitics in other languages
  - inventory, position, order, climbing, ...
  - but the exact mix of properties is worth investigating.

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## Positions of clitics within the sentence

- In a **finite clause** clitics are in the “second position” (2P, Wackernagel position):

	1P		2P				
(2)	Příští	sobotu	<i>bych</i>	<i>mu</i>	<i>to</i>	mohl	dát.
	next	Saturday	would <sub>1sg</sub>	him <sub>D</sub>	it <sub>A</sub>	could	give <sub>inf</sub>

‘Next Saturday, I could give it to him.’

- (3) \*Příští sobotu mohl *bych mu to* dát.  
 (4) \*Příští sobotu mohl dát *bych mu to*.

- ▶ 1P is usually, but not always, the first clausal constituent.
- ▶ In colloquial speech, 1P can be empty.

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## Positions of clitics within their cluster

- Within a clitic cluster, clitics are ordered by their morpholexical properties.

- (5) a. Martin *by se jí ho* nakonec odhodlal koupit.  
 Martin would<sub>3</sub> refl<sub>A</sub> her<sub>D</sub> him<sub>A</sub> finally decided to-buy  
 ‘Martin would find the courage to buy it for her in the end.’
- b. \*Martin *se by jí ho* nakonec odhodlal koupit.
- c. \*Martin *by jí se ho* nakonec odhodlal koupit.

auxiliaries < reflexives < adjunct dative <  
 < complement dative < accusative/genitive < to ‘it’



## Opposite ordering preferences from full words

	<b>Words</b>	<b>Clitics</b>
<b>Constituent order</b>	free (flat structure)	rigid
<b>Discontinuous (non-projective) placement</b>	possible, but marked and mostly limited to certain constructions	common

- Some have clitical and non-clitical variants.  
The latter can bear sentential stress (e.g., *se* vs. *sebe* ‘refl<sub>A</sub>’).

- (6) a. Marie *se* chválila v posudku.  
Marie refl<sub>A</sub> praised in review  
‘Marie praised herself in the review.’
- b. Marie chválila v posudku *Petra* / *sebe* / *\*se*.  
Marie praised in review Petr / refl<sub>A</sub> / refl<sub>A</sub>.  
‘Marie praised PETR<sub>R</sub> / HERSELF<sub>R</sub> / \*HERSELF<sub>R</sub> in the review.’

- Some elements can be used both as clitics and non-clitics (e.g., *jí* ‘her<sub>D</sub>’)
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# Only one reflexive in a cluster

	full	clitic
dative	<i>sobě</i>	<i>si</i>
accusative	<i>sebe</i>	<i>se</i>

- (7) a. Viděl *jsem se*, jak stojím na jeho místě.  
 saw aux<sub>1SG</sub> refl<sub>A</sub> how stand<sub>1SG</sub> at his place  
 'I saw myself in his position.'
- b. \*Představil *jsem si se*, jak stojím na jeho místě.  
 saw aux<sub>1SG</sub> refl<sub>D</sub> refl<sub>A</sub> how stand<sub>1SG</sub> at his place  
 'I imagined myself in his position.'
- c. Představil *jsem si sebe*, jak stojím na jeho místě.  
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# Warning

A sentence can contain adjacent clusters:

- (8) [Pomoc<sub>2</sub> =mu<sub>2</sub>] | se<sub>1</sub> = snažili<sub>1</sub> všichni.  
 help<sub>inf</sub> him<sub>D</sub> refl<sub>A</sub> tried all  
 ‘Everybody tried to help him.’

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# Climbing

- (9) I Martin  $by_0$   $se_1$  určitě  $snažil_1$  [ $mu_2$   $pomocť_2$  [ $ho_3$   $najít_3$  .]]  
 even Martin would refl<sub>A</sub> definitely tried him<sub>D</sub> help<sub>inf</sub> him<sub>A</sub> find<sub>inf</sub>  
 ‘Even Martin would definitely try to help to help him to find it.’
- (10) I Martin  $by_0$   $se_1$   $mu_2$   $ho_3$  určitě  $snažil_1$   $pomocť_2$   $najít_3$  .  
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# Climbing is monotonic

- A clitic cannot climb over another clitic.

(11) Všichni *jsme*<sub>0</sub> *se*<sub>1</sub> *snažili*<sub>1</sub> [ *mu*<sub>2</sub> *pomoci*<sub>2</sub> [ *ho*<sub>3</sub> *najít*<sub>3</sub> . ] ]  
 all aux<sub>1pl</sub> refl<sub>A</sub> tried him<sub>D</sub> to-help him<sub>A</sub> to-find  
 ‘All of us tried to help him to find it.’

(12) Všichni *jsme*<sub>0</sub> *se*<sub>1</sub> *mu*<sub>2</sub> *snažili*<sub>1</sub> [ *ho*<sub>3</sub> *pomoci*<sub>2</sub> *najít*<sub>3</sub> . ]

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- Surface order is irrelevant:

(15) *Pomoci*<sub>2</sub> *najít*<sub>3</sub> *jsme*<sub>0</sub> *se*<sub>1</sub> *mu*<sub>2</sub> *ho*<sub>3</sub> *snažili*<sub>1</sub> všichni.

(16) [ *Pomoci*<sub>2</sub> *mu*<sub>2</sub> *ho*<sub>3</sub> *najít*<sub>3</sub> ] *jsme*<sub>0</sub> *se*<sub>1</sub> *snažili*<sub>1</sub> všichni.

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## Some constraints on climbing

- Climbing preferred in a cluster of modal verbs
- Climbing impossible from some phrases (e.g., finite clauses and gerund phrases)
- Reflexive clitics do not climb from object-controlled VPs.
- Ordering by Governors' Degree of Embeddedness (GDEC)

(17) Poslat<sub>2</sub> kurýrem se<sub>1</sub> mi<sub>1</sub> mu<sub>2</sub> ho<sub>2</sub> dnes nepodařilo<sub>1</sub>.  
 to-send by-courier refl<sub>A</sub> me<sub>D</sub> him<sub>D</sub> him<sub>A</sub> today failed  
 'I did not succeed in sending it to him by a courier today'  
 [Avgustinova & Oliva(1995)]

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# Haplology

- Resolves accidental repetition of identical morphemes [Neeleman & van de Koot(2006)]
- Possible strategies: avoidance, tolerance, **deletion**, suppletion, portmanteau
- In Czech: a clitic cluster should not include more than one reflexive marker
- Climbing reflexive markers avoid each other – strategy: deletion

## Haplogy – cont'd.

- (18) Děvče  $se_{1+2}$  (\**se*) stydělo<sub>1</sub> převléknout<sub>2</sub>.  
 girl refl<sub>A</sub> was ashamed change<sub>inf</sub> dress  
 'The girl was ashamed to change dress.'
- (19) Netroufla<sub>1</sub>  $si_{1+2}$  (| *si*) říct<sub>2</sub> o víc knedlíků.  
 dared<sub>neg</sub> refl<sub>D</sub> ask<sub>inf</sub> for more dumplings  
 'She didn't dare to ask for more dumplings.'
- (20) Netroufla<sub>1</sub> (*j*) $si_0$   $si_{1+2}$  říct<sub>2</sub> o víc knedlíků.  
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# Tolerance

- (21) Neshodne se se sestrou.  
 agree<sub>neg</sub> refl<sub>A</sub> with sister  
 ‘He/she doesn’t get along well with his/her sister.’

# Haplogy of unlikes

- (22) a. Jan  $se_1$  bál<sub>1</sub>            vzít<sub>2</sub>  $si_2$  kravatu.  
 Jan refl<sub>A</sub> was-afraid take<sub>inf</sub> refl<sub>D</sub> tie  
 'Jan was afraid to take a tie.'
- b. Jan  $si_{2+1}$  bál<sub>1</sub>            vzít<sub>2</sub> kravatu.  
 Jan refl<sub>D</sub> was-afraid take<sub>inf</sub> tie
- c. Jan  $se_{1+2}$  bál<sub>1</sub>            vzít<sub>2</sub> kravatu.  
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- (23) a. Troufla<sub>1</sub> si<sub>1</sub> usadit<sub>2</sub> se<sub>2</sub> v první řadě.  
 dared refl<sub>D</sub> to-sit refl<sub>A</sub> in first row  
 'She dared to sit in the first row.'
- b. ?Troufla<sub>1</sub> si<sub>1+2</sub> usadit<sub>2</sub> v první řadě.  
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# Haplogy of unlikes in other languages

## Polish

- Just one RM: *się*, only full form for dative: *sobie*
- No inherently reflexive verbs with *sobie*
- Examples similar to those in Czech can still be found

- (24) Przywołuje te chwile usilnie, staram *się* przypomnieć.  
 recall those moments hard try refl<sub>A</sub> remember<sub>inf</sub>  
 'I'm trying hard to recall those moments, trying to remember.'
- (25) a. Staralam się wytłumaczyć...  
 tried refl<sub>A</sub> explain  
 'I tried to explain.'
- b. Staralam sobie wytłumaczyć...  
 tried self<sub>D</sub>  
 'I tried to explain to myself.'

(Google: 29,500 vs. 799 hits)

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# Haplogy of unlikes in other languages – cont'd.

## Early Modern German

- [Breitbarth(2005)] considers haplogy of two adjacent finite auxiliaries split by a clause boundary
- However, an auxiliary can be dropped even if the two are not adjacent, suggesting that this could better be viewed as ellipsis.

- (26) Als Swatoslaw seine Khinder versehen [ ] / ist er in BVLGERN gezogen
- (27) Wie die Bevestigung vnd di aussere Werck der Stadt beschaffen [ ] / ist auß dem dieser Chronic beyfügtem Kupffer zu sehen.

# Haplogy of unlikes in other languages – cont'd.

## Early Modern German

- [Breitbarth(2005)] considers haplogy of two adjacent finite auxiliaries split by a clause boundary
- However, an auxiliary can be dropped even if the two are not adjacent, suggesting that this could better be viewed as ellipsis.

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## Romanian

- Possessive markers are deleted in the context of preceding definite determiners [Neeleman & van de Koot(2006)]

(28) prietenul (\*al) băiatului  
 friend<sub>def,masc</sub> POSS<sub>sg,masc</sub> boy<sub>def,dat,masc</sub>  
 the friend of the boy

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# Haplogy of unlikes in a corpus

- Czech National Corpus, 1.3 billion words, automatically assigned lemmas and morphosyntactic tags
- Finite inherent reflexives taking infinitive
  - ▶ with *se*: 2,681,444
  - ▶ with *si*: 476,446
  - ▶ *se/si* ratio: 5.6 : 1



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- Queries: contiguous strings of inherent reflexives (IRs) and reflexive markers (RMs), any order
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- The results rectified by the relative frequency of *se/si* reflexives

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A	<i>se</i>	<i>si</i>	<i>si</i>	52	901
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## Specific probes

- “try to remember”

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# Haplology of unlikes within a single clause?

- Impersonal diathesis: impersonal *se*

- (29) a. Vy stále mluvíte.  
 you always talk  
 ‘You keep talking.’
- b. Vám *se* to mluví!  
 you<sub>D</sub> refl<sub>A</sub> it complain  
 ‘For you, it’s easy to talk (like this)!’
- (30) a. Vy *si* stále stěžujete.  
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- (31) a. Na šéfa *se*/*\*si* špatně stěžuje.  
 on boss refl<sub>A</sub> badly complain<sub>inf</sub>  
 'It is hard to complain about a boss.'
- b. Na šéfa *se*/*\*si* přestalo stěžovat.  
 on boss refl<sub>A</sub> stopped complain<sub>inf</sub>  
 'People stopped complaining about the boss.'

- Impersonal *se* always persists.

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# Outline of the talk

- 1 Czech clitics
- 2 Climbing
- 3 Haplology
- 4 Formalization**

# A sketch of formalization in HPSG

- Based on [Kupść(2000)]
- Clause union (=argument composition/raising/amalgamation) as an independently motivated mechanism for clitics and non-clitics alike [Hinrichs & Nakazawa(1994)]:
  - ▶ Clitics may climb due to optional raising of arguments.
  - ▶ Argument raising is a lexically specified option, restricting the class of syntactic categories from which arguments are raised and the class of “raising” verbs.
- Argument realization constraint to prevent RMs from surfacing more than once with a single host:
  - ▶ Multiple identical instances of RMs are resolved to a single form.
  - ▶ Multiple different instances of RMs are resolved to an arbitrary form, unless one of the RMs is impersonal, then it persists.

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# Formalization in HPSG – cont'd.

- The linear position of a clitic cluster and the position of a clitic within the cluster is determined by constraints operating on morphosyntactic, phonological and prosodical properties.
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- Argument raising

$$\left[ \begin{array}{l} \text{HEAD } \mathit{verb} \\ \text{ARG-ST } \langle \dots, \left[ \begin{array}{l} \text{HEAD } \mathit{inf} \\ \text{COMPS } \boxed{1} \end{array} \right] \rangle \oplus \boxed{1} \end{array} \right]$$

- Argument realization

$$\mathit{word} \longrightarrow \left[ \begin{array}{l} \text{SUBJ } \boxed{1} \\ \text{COMPS } \boxed{2} \\ \text{ARG-ST } \boxed{1} \oplus \boxed{2'} \end{array} \right] \wedge \text{args2comps } (\boxed{2}, \boxed{2'})$$

- Linear precedence

[Kathol(2000)]

[Penn(999a)]

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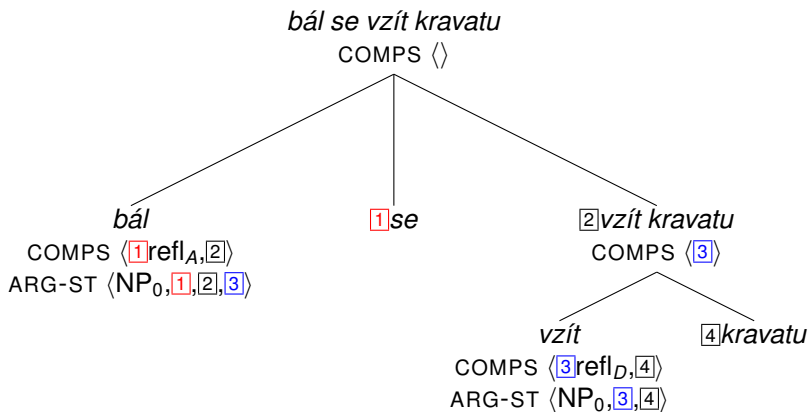
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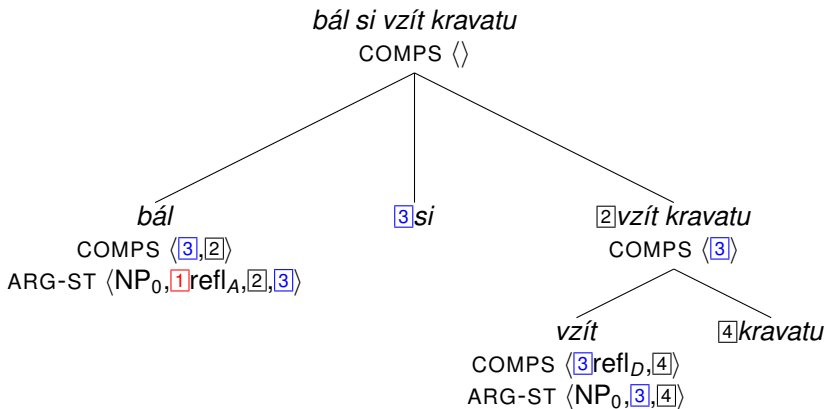
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*bál se vzít si kravatu*COMPS  $\langle \rangle$ *bál*COMPS  $\langle \boxed{1}\text{refl}_A, \boxed{2} \rangle$ ARG-ST  $\langle \text{NP}_0, \boxed{1}, \boxed{2} \rangle$  $\boxed{1}$  *se* $\boxed{2}$  *vzít si kravatu*COMPS  $\langle \rangle$ *vzít*COMPS  $\langle \boxed{3}\text{refl}_D, \boxed{4} \rangle$ ARG-ST  $\langle \text{NP}_0, \boxed{3}, \boxed{4} \rangle$  $\boxed{3}$  *si* $\boxed{4}$  *kravatu*





# Acknowledgment

Part of this work was supported  
by the Grant Agency of the Czech Republic  
as project No. P406/10/0434.

Thank you!



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