Case competition in headless relatives

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Goethe-Universität Frankfurt

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DFG Deutsche Forschungsgemeinschaft

Introduction

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I invite$_{[ACC]}$ the.ACC person RP.DAT Maria trust$_{[DAT]}$
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This presentation

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- Illustrate generalizations with data

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  - the stable NOM < ACC < DAT

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  - the stable NOM < ACC < DAT
  - the INT/EXT parameter

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(5) **hòn hoi theoì philoũsin** apothnḗskei néos
RP.ACC the god love$_{[ACC]}$ die$_{[NOM]}$ young
'He, whom the gods love, dies young.'
(Classical Greek, Menander, The Double Deceiver 125)

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RP.DAT less become read$_{[DAT]}$ less love$_{[NOM]}$
'whom less is read, loves less' (Old High German, Tatian 138:13)

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(7) ei galaubjaiþ þamm **-ei insandida jains**
that believe$_{[DAT]}$ RP.DAT -COMP send$_{[ACC]}$ he
'that you believe in him whom he sent' (Gothic, John 6:29)

INT/EXT in Modern German

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- winning case = INT case
- winning case = EXT case
  (cf. Grosu, 2003b; Himmelreich, 2017; Cinque, 2020)

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- INT: yes
- EXT: no

INT/EXT overview in Modern German

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INT/EXT overview in Modern German

- INT: yes
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INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	ACC	ACC	*
[DAT]	DAT	DAT	DAT

INT/EXT in Old High German

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- INT: yes
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INT/EXT in Old High German

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'whom less is read, loves less' (Old High German, Tatian 138:13)

(11) enti aer ant uurta demo **zaimo sprah**
and he reply$_{[DAT]}$ RP.DAT to him speak$_{[NOM]}$
'and he replied to the one who spoke to him'
(Old High German, MONS 7:24, adapted from Pittner 1995: 199)

INT/EXT in Old High German

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[NOM]	NOM	ACC	DAT
[ACC]	ACC	ACC	DAT
[DAT]	DAT	DAT	DAT

INT/EXT in Polish

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- INT: no
- EXT: no

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(12) *Jan lubi **komu -kolkwiek dokucza**.
Jan like[ACC] RP.DAT ever tease[DAT]
'Jan likes whoever he teases.'
(Polish, adapted from Citko 2013 after Himmelreich 2017: 17)

INT/EXT in Polish

- INT: no
- EXT: no

(12) *Jan lubi **komu -kolkwiek dokucza**.
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(Polish, adapted from Citko 2013 after Himmelreich 2017: 17)

(13) *Jan ufa komu **-kolkwiek wpuścil do domu**.
Jan trust[DAT] RP.DAT ever let[ACC] to home
'Jan trusts whoever he let into the house.'
(Polish, adapted from Citko 2013 after Himmelreich 2017: 17)

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INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*

INT/EXT overview

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Table 1: Modern German pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	ACC	ACC	*
[DAT]	DAT	DAT	DAT

INT/EXT overview

Table 1: Modern German pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	ACC	ACC	*
[DAT]	DAT	DAT	DAT

Table 2: Old High German pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	ACC	DAT
[ACC]	ACC	ACC	DAT
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[NOM]	NOM	*	*
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INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	ACC	DAT
[ACC]	ACC	ACC	DAT
[DAT]	DAT	DAT	DAT

Table 3: Polish pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	*	ACC	*
[DAT]	*	*	DAT

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[NOM]	NOM	*	*
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Table 3: Polish pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	*	ACC	*
[DAT]	*	*	DAT

Table 4: unattested pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	ACC	DAT
[ACC]	*	ACC	DAT
[DAT]	*	*	DAT

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[NOM]	NOM	*	*
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INT \ EXT	[NOM]	[ACC]	[DAT]
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INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
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The stable NOM < ACC < DAT

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Table 5: Khanty 3SG pronouns (Nikolaeva 1999: 16 after Smith et al. 2019)

	3SG
NOM	luw
ACC	
DAT	

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a single trigger

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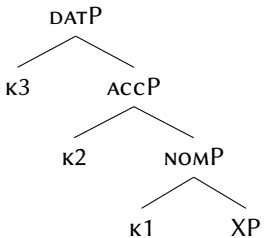
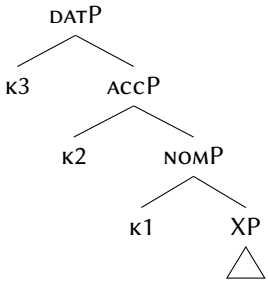


(Caha, 2009, 2019)

The winning case contains the losing case



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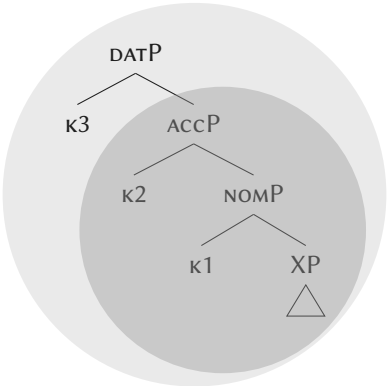
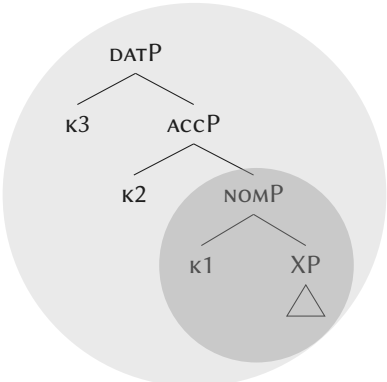
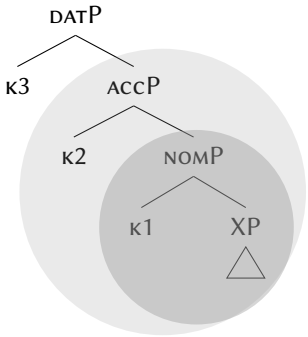


The winning case contains the losing case



The winning case contains the losing case



The INT/EXT parameter

The INT/EXT parameter

Table 6: Modern German pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	ACC	ACC	*
[DAT]	DAT	DAT	DAT

The INT/EXT parameter

Table 6: Modern German pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	ACC	ACC	*
[DAT]	DAT	DAT	DAT

Table 7: Polish pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	*	ACC	*
[DAT]	*	*	DAT

The INT/EXT parameter

Table 6: Modern German pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	ACC	ACC	*
[DAT]	DAT	DAT	DAT

Table 7: Polish pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	*	ACC	*
[DAT]	*	*	DAT

3-4

Table 8: Old High German pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	ACC	DAT
[ACC]	ACC	ACC	DAT
[DAT]	DAT	DAT	DAT

The INT/EXT parameter

Table 6: Modern German pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	ACC	ACC	*
[DAT]	DAT	DAT	DAT

3-4

Table 8: Old High German pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	ACC	DAT
[ACC]	ACC	ACC	DAT
[DAT]	DAT	DAT	DAT

Table 7: Polish pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	*	ACC	*
[DAT]	*	*	DAT

INT = allowed to surface

Modern German yes

Polish no

The INT/EXT parameter

Table 6: Modern German pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	ACC	ACC	*
[DAT]	DAT	DAT	DAT

Table 7: Polish pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	*	ACC	*
[DAT]	*	*	DAT

3-4

Table 8: Old High German pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	ACC	DAT
[ACC]	ACC	ACC	DAT
[DAT]	DAT	DAT	DAT

Vogel 2001

INT = allowed to surface

	OT constraints
Modern German	x » y
Polish	y » x

yes

no

The INT/EXT parameter

Table 6: Modern German pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	ACC	ACC	*
[DAT]	DAT	DAT	DAT

Table 7: Polish pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	*	ACC	*
[DAT]	*	*	DAT

3-4

Table 8: Old High German pattern

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	ACC	DAT
[ACC]	ACC	ACC	DAT
[DAT]	DAT	DAT	DAT

INT = allowed to surface

	Vogel 2001	Himmelreich 2017
	OT constraints	agree
Modern German	x » y	no probe
Polish	y » x	probe

My proposal

My proposal

- embedded in Nanosyntax (Starke, 2009)

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- same syntax and same spellout algorithm for each language

My proposal

- embedded in Nanosyntax (Starke, 2009)
- same syntax and same spellout algorithm for each language
- difference is in the lexicon (Borer-Chomsky Conjecture)

Assumptions

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- headless relatives are derived from light-headed relatives, headed by a special type of light head

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(15) Ich umarme den, den ich mag.
I hug DEM.ACC RP.ACC I like
'I hug him that I like.'

Assumptions

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  light head_{EXT} [relative $\text{pronoun}_{\text{INT}}$ ...]

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  ~~light head~~$_{\overline{\text{EXT}}}$ [relative pronoun$_{\text{INT}}$ ...]

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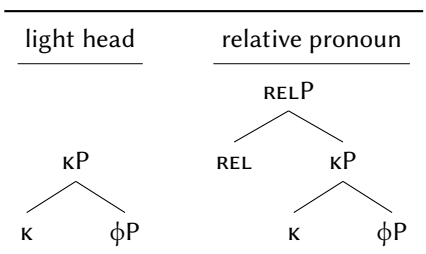
- deletion takes place when the relative pronoun contains the light head as a single constituent

Assumptions

- headless relatives are derived from light-headed relatives, headed by a special type of light head
  ~~light head$_{\text{EXT}}$~~ [relative pronoun$_{\text{INT}}$ ...]

- deletion takes place when the relative pronoun contains the light head as a single constituent
- the relative pronoun contains the features of the light head plus an additional one



Light head and relative pronoun in Modern German

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INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	ACC	ACC	*
[DAT]	DAT	DAT	DAT

Light head and relative pronoun in Modern German

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	ACC	ACC	*
[DAT]	DAT	DAT	DAT

Light head and relative pronoun in Modern German

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	ACC	ACC	*
[DAT]	DAT	DAT	DAT

Table 9: Modern German LH and RP

LH	RP
n	we-m

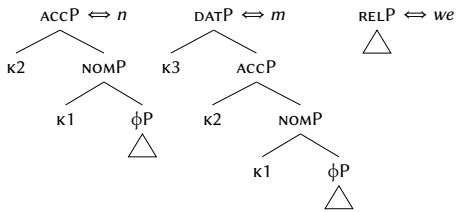
Light head and relative pronoun in Modern German

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	ACC	ACC	*
[DAT]	DAT	DAT	DAT

Table 9: Modern German LH and RP

LH	RP
n	we-m

lexicon



Light head and relative pronoun in Modern German

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	ACC	ACC	*
[DAT]	DAT	DAT	DAT

Table 9: Modern German LH and RP

LH	RP
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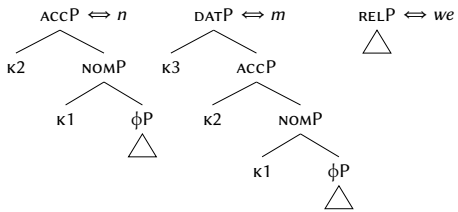
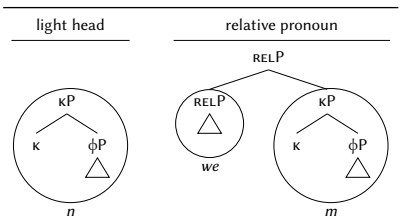


internal syntax



ACC_{EXT} vs. DAT_{INT} in Modern German

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(16) Ich lade ~~n~~ ein, **wem auch Maria vertraut**.
I invite$_{[\text{ACC}]}$ LH.ACC RP.DAT also Maria trust$_{[\text{DAT}]}$
'I invite whoever Maria also trusts.'
(Modern German, adapted from Vogel 2001: 344)

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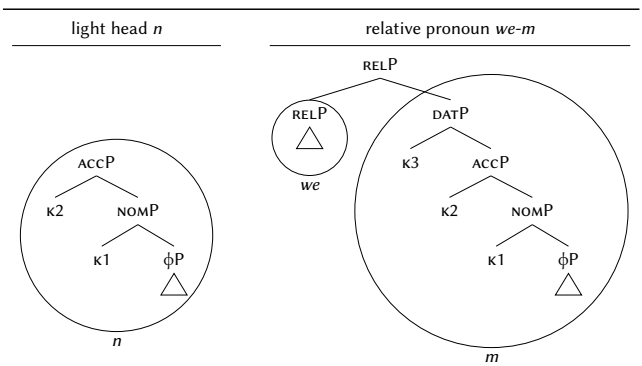

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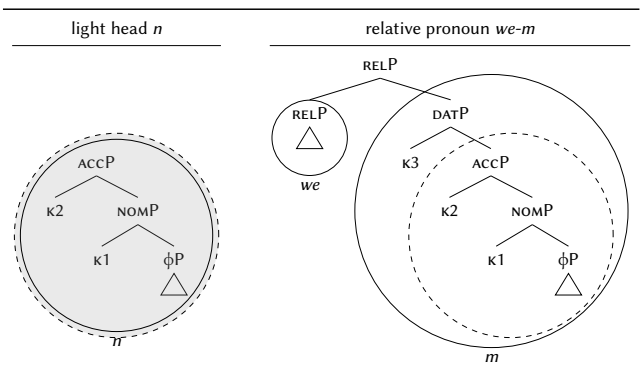

Light head and relative pronoun in Polish

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INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	*	ACC	*
[DAT]	*	*	DAT

Light head and relative pronoun in Polish

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	*	ACC	*
[DAT]	*	*	DAT

Light head and relative pronoun in Polish

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	*	ACC	*
[DAT]	*	*	DAT

Table 10: Polish LH and RP

LH	RP
o-go	k-o-mu

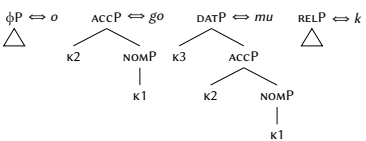
Light head and relative pronoun in Polish

INT \ EXT	[NOM]	[ACC]	[DAT]
[NOM]	NOM	*	*
[ACC]	*	ACC	*
[DAT]	*	*	DAT

Table 10: Polish LH and RP

LH	RP
o-go	k-o-mu

lexicon



Light head and relative pronoun in Polish

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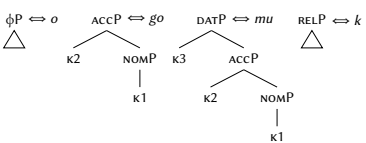
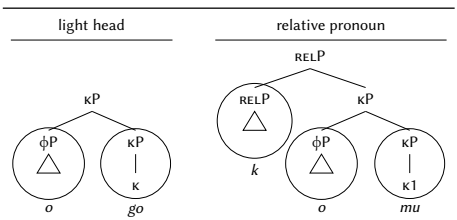


internal syntax



Comparing Polish to Modern German

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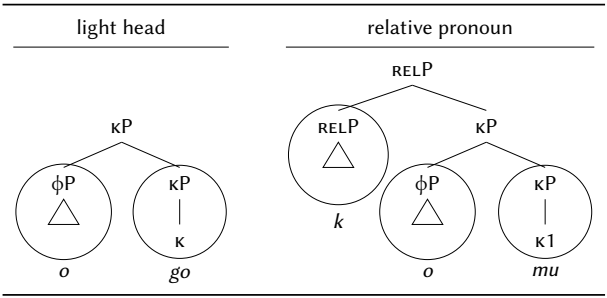

ACC_{EXT} vs. DAT_{INT} in Polish

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(17) *Jan lubi ~~ego~~ **komu -kolkwiek dokucza**.
Jan like$_{[\text{ACC}]}$ LH.ACC RP.DAT ever tease$_{[\text{DAT}]}$
'Jan likes whoever he teases.'
(Polish, adapted from Citko 2013 after Himmelreich 2017: 17)

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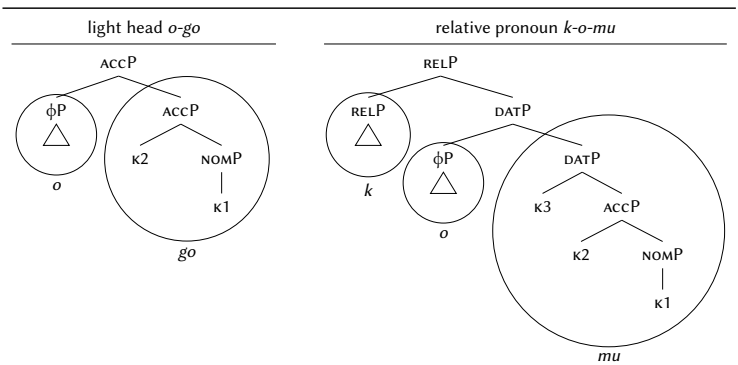

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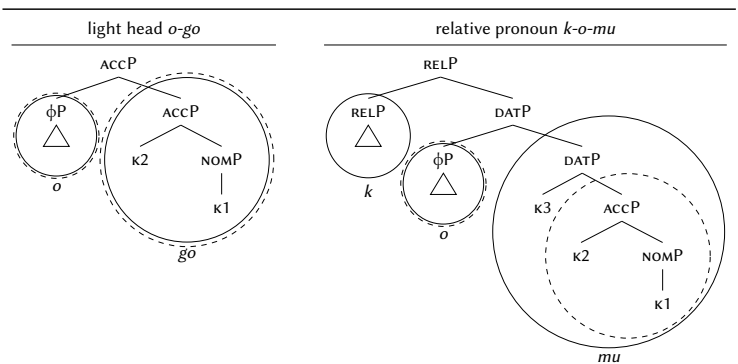

INT/EXT

INT/EXT

	INT = allowed to surface
Modern German	yes
Polish	no

INT/EXT

	INT = allowed to surface	ϕ + K
Modern German	yes	portmanteau
Polish	no	separate morphemes

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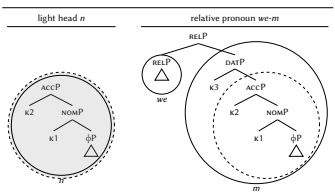

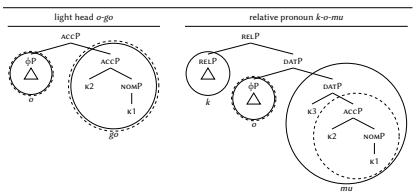

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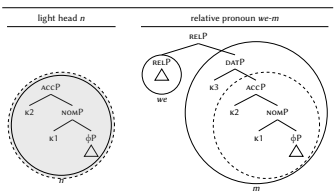

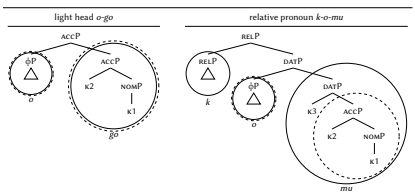

lexical entries ⟶ internal syntax ⟶ containment ⟶ deletion ⟶ headless relative

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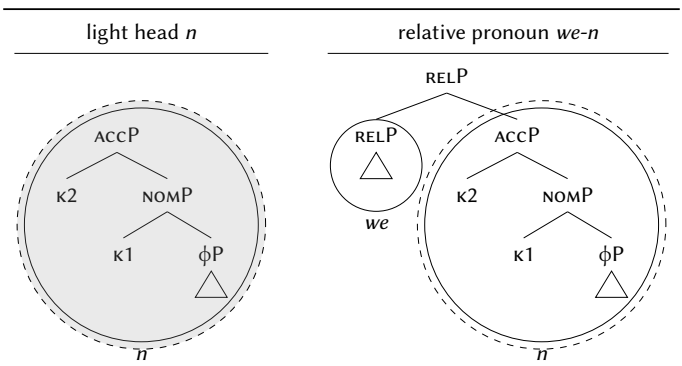
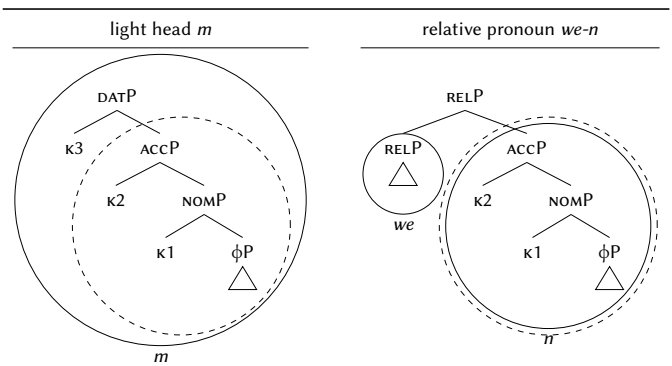
ACC_{EXT} vs. ACC_{INT} in Modern German

(18) Ich lade ~~n~~ ein, **wen** **auch Maria mag**.
I invite$_{[\text{ACC}]}$ LH.ACC RP.ACC also Maria like$_{[\text{ACC}]}$
'I invite who Maria also likes.'
(Modern German, adapted from Vogel 2001: 344)



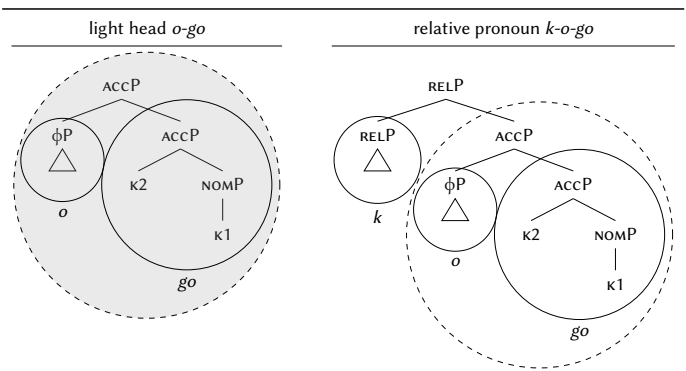
DAT_{EXT} vs. ACC_{INT} in Modern German

(19) *Ich vertraue ~~m~~, **wen auch Maria mag**.
I trust$_{[\text{DAT}]}$ LH.DAT RP.ACC also Maria like$_{[\text{ACC}]}$
'I trust whoever Maria also likes.'
(Modern German, adapted from Vogel 2001: 345)



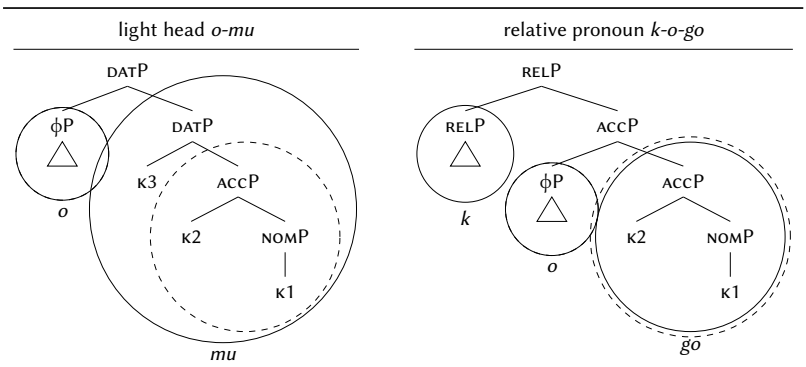
ACC_{EXT} vs. ACC_{INT} in Polish

(20) Jan lubi ~~ogo~~ **kogo -kolkwiek Maria lubi**.
Jan $\text{like}_{[\text{ACC}]}$ LH.ACC RP.ACC ever Maria $\text{like}_{[\text{ACC}]}$
'Jan likes whoever Maria likes.'
(Polish, adapted from Citko 2013 after Himmelreich 2017: 17)



DAT_{EXT} vs. ACC_{INT} in Polish

(21) *Jan ufa ~~omu~~ **kogo -kolkwiek wpuścił do domu**.
Jan trust$_{[\text{DAT}]}$ ELH.DAT RP.ACC ever let$_{[\text{ACC}]}$ to home
'Jan trusts whoever he let into the house.'
(Polish, adapted from Citko 2013 after Himmelreich 2017: 17)

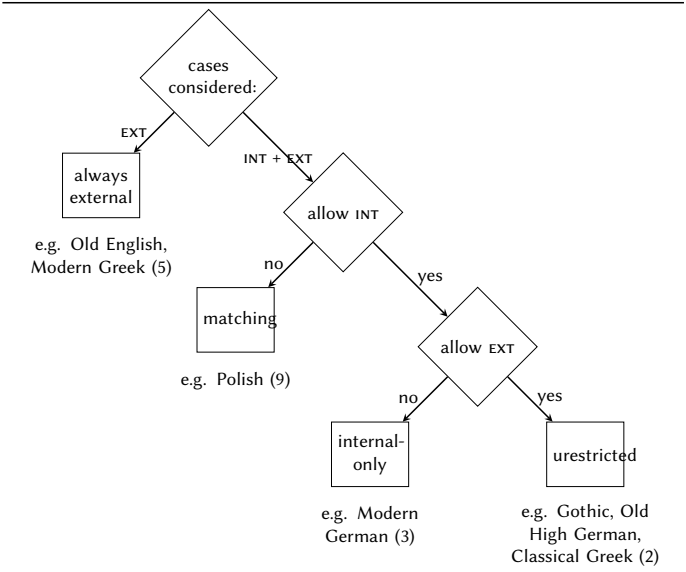


Weak and strong definites as head of a relative clause

(22) *Fritz ist jetzt im Haus, das er sich letztes Jahr gebaut hat.
Fritz is now in the house that the REFL last year built has
'Fritz is now in the house that he built last year.'
(Modern German, Schwarz 2009: 22 after **hartmann1978**: 77)

(23) Fritz ist jetzt in dem Haus, das er sich letztes Jahr gebaut hat.
Fritz is now in the house that the REFL last year built has
'Fritz is now in the house that he built last year.'
(Modern German, Schwarz 2009: 22 after **hartmann1978**: 77)

Three descriptive parameters generate four language types



Logically possible patterns for headless relatives

	[INT]>[EXT]		[EXT]>[INT]		
	INT	EXT	INT	EXT	language
1	☒	*	☒	*	n.a.
2	☒	*	*	☒	e.g. Old High German
3	☒	*	*	*	e.g. Modern German
4	*	☒	☒	*	n.a.
5	*	☒	*	☒	e.g. Old English
6	*	☒	*	*	n.a.
7	*	*	☒	*	n.a.
8	*	*	*	☒	n.a.
9	*	*	*	*	e.g. Polish

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extra stuff * cinque trees * ohg comparisons