Case competition in headless relatives

Fenna Bergsma

Research Training Group 'Nominal Modification'
Goethe-Universität Frankfurt

December 16, 2021

DFG Deutsche Forschungsgemeinschaft

Introduction

Introduction

(1) Ich lade ein, wem auch Maria vertraut.
I invite$_{[ACC]}$ RP.DAT also Maria trust$_{[DAT]}$
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

Introduction

(1) Ich lade ein, **wem auch Maria vertraut**.
I invite$_{[ACC]}$ RP.DAT also Maria trust$_{[DAT]}$
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

Introduction

(1) Ich lade ein, **wem auch Maria vertraut**.
I invite$_{[ACC]}$ RP.DAT also Maria trust$_{[DAT]}$
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

(2) Ich lade die Person ein, **der Maria vertraut**.
I invite$_{[ACC]}$ the.ACC person RP.DAT Maria trust$_{[DAT]}$
'I invite the person that Maria trusts.'

Introduction

(1) Ich lade ein, **wem auch Maria vertraut**.
I invite$_{[ACC]}$ RP.DAT also Maria trust$_{[DAT]}$
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

(2) Ich lade die Person ein, **der Maria vertraut**.
I invite$_{[ACC]}$ the.ACC person RP.DAT Maria trust$_{[DAT]}$
'I invite the person that Maria trusts.'

Introduction

(1) Ich lade ein, **wem auch Maria vertraut**.
I invite$_{[ACC]}$ RP.DAT also Maria trust$_{[DAT]}$
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

(2) Ich lade die Person ein, **der Maria vertraut**.
I invite$_{[ACC]}$ the.ACC person RP.DAT Maria trust$_{[DAT]}$
'I invite the person that Maria trusts.'

Introduction

(1) Ich lade ein, **wem auch Maria vertraut**.
I invite$_{[ACC]}$ RP.DAT also Maria trust$_{[DAT]}$
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

(2) Ich lade die Person ein, **der Maria vertraut**.
I invite$_{[ACC]}$ the.ACC person RP.DAT Maria trust$_{[DAT]}$
'I invite the person that Maria trusts.'

Introduction

(1) Ich lade ein, **wem auch Maria vertraut**.
I invite$_{[ACC]}$ RP.DAT also Maria trust$_{[DAT]}$
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

(2) Ich lade die Person ein, **der Maria vertraut**.
I invite$_{[ACC]}$ the.ACC person RP.DAT Maria trust$_{[DAT]}$
'I invite the person that Maria trusts.'

Introduction

(1) Ich lade ein, **wem auch Maria vertraut**.
I invite[ACC] RP.DAT also Maria trust[DAT]
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

Introduction

(1) Ich lade ein, **wem auch Maria vertraut**.
I invite[ACC] RP.DAT also Maria trust[DAT]
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

two factors determine grammaticality

Introduction

(1) Ich lade ein, **wem auch Maria vertraut**.
I invite[ACC] RP.DAT also Maria trust[DAT]
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

two factors determine grammaticality

1. the case of the relative pronoun

Introduction

(1) Ich lade ein, **wem auch Maria vertraut**.
I invite[ACC] RP.DAT also Maria trust[DAT]
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

two factors determine grammaticality

1. the case of the relative pronoun
   - NOM < ACC < DAT

Introduction

(1) Ich lade ein, **wem auch Maria vertraut**.
I invite$_{[ACC]}$ RP.DAT also Maria trust$_{[DAT]}$
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

two factors determine grammaticality

1. the case of the relative pronoun
   - NOM < ACC < DAT
   - is stable across languages

Introduction

(1) Ich lade ein, **wem auch Maria vertraut**.
I invite[ACC] RP.DAT also Maria trust[DAT]
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

two factors determine grammaticality

1. the case of the relative pronoun
   - NOM < ACC < DAT
   - is stable across languages
2. where the winning case comes from

Introduction

(1) Ich lade ein, **wem auch Maria vertraut**.
I invite$_{[ACC]}$ RP.DAT also Maria trust$_{[DAT]}$
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

two factors determine grammaticality

1. the case of the relative pronoun
   - NOM < ACC < DAT
   - is stable across languages
2. where the winning case comes from
   - INT/EXT

Introduction

(1) Ich lade ein, **wem auch Maria vertraut**.
I invite$_{[ACC]}$ RP.DAT also Maria trust$_{[DAT]}$
'I invite whoever Maria also trusts.' (Modern German, Vogel 2001: 344)

two factors determine grammaticality

1. the case of the relative pronoun
   - NOM < ACC < DAT
   - is stable across languages
2. where the winning case comes from
   - INT/EXT
   - differs across languages

This presentation

This presentation

- Illustrate generalizations with data

This presentation

- Illustrate generalizations with data
  - the stable NOM < ACC < DAT

This presentation

- Illustrate generalizations with data
  - the stable NOM < ACC < DAT
  - the INT/EXT parameter

This presentation

- Illustrate generalizations with data
  - the stable NOM < ACC < DAT
  - the INT/EXT parameter
- Derive generalizations from the theory

This presentation

- Illustrate generalizations with data
  - the stable NOM < ACC < DAT
  - the INT/EXT parameter
- Derive generalizations from the theory
  - the stable NOM < ACC < DAT

This presentation

- Illustrate generalizations with data
  - the stable NOM < ACC < DAT
  - the INT/EXT parameter
- Derive generalizations from the theory
  - the stable NOM < ACC < DAT
  - the INT/EXT parameter

This presentation

- Illustrate generalizations with data
  - the stable NOM < ACC < DAT
  - the INT/EXT parameter
- Derive generalizations from the theory
  - the stable NOM < ACC < DAT
  - **the INT/EXT parameter**

NOM < ACC < DAT in Modern German

NOM < ACC < DAT in Modern German

NOM < ACC < DAT

(cf. Harbert, 1978; Pittner, 1995; Vogel, 2001; Grosu, 2003a)

NOM < ACC < DAT in Modern German

NOM < **ACC < DAT**

(cf. Harbert, 1978; Pittner, 1995; Vogel, 2001; Grosu, 2003a)

NOM < ACC < DAT in Modern German

NOM < **ACC < DAT**

(cf. Harbert, 1978; Pittner, 1995; Vogel, 2001; Grosu, 2003a)

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

NOM < ACC < DAT in Modern German

NOM < **ACC < DAT**

(cf. Harbert, 1978; Pittner, 1995; Vogel, 2001; Grosu, 2003a)

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

(3) *Ich lade ein, wen **auch Maria vertraut**.
I invite$_{[ACC]}$ RP.ACC also Maria trust$_{[DAT]}$
'I invite whoever Maria also trusts.'
(Modern German, adapted from Vogel 2001: 344)

NOM < ACC < DAT in Modern German

NOM < ACC < DAT

(cf. Harbert, 1978; Pittner, 1995; Vogel, 2001; Grosu, 2003a)

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

NOM < ACC < DAT in Modern German

NOM < ACC < DAT

(cf. Harbert, 1978; Pittner, 1995; Vogel, 2001; Grosu, 2003a)

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

(3) Uns besucht, **wen Maria mag**.
us visit$_{[NOM]}$ RP.ACC Maria like$_{[ACC]}$
'Who visits us, Maria likes.'
(Modern German, adapted from Vogel 2001: 343)

NOM < ACC < DAT in Modern German

NOM < ACC < DAT

(cf. Harbert, 1978; Pittner, 1995; Vogel, 2001; Grosu, 2003a)

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

(3) Uns besucht, **wen Maria mag**.
us visit$_{[NOM]}$ RP.ACC Maria like$_{[ACC]}$
'Who visits us, Maria likes.'
(Modern German, adapted from Vogel 2001: 343)

(4) *Uns besucht, wer **Maria mag**.
us visit$_{[NOM]}$ RP.NOM Maria like$_{[ACC]}$
'Who visits us, Maria likes.'
(Modern German, adapted from Vogel 2001: 343)

NOM < ACC < DAT in Modern German

NOM < ACC < DAT

(cf. Harbert, 1978; Pittner, 1995; Vogel, 2001; Grosu, 2003a)

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

(3) Uns besucht, **wen Maria mag**.
us visit$_{[NOM]}$ RP.ACC Maria like$_{[ACC]}$
'Who visits us, Maria likes.'
(Modern German, adapted from Vogel 2001: 343)

NOM < ACC < DAT in Modern German

NOM < ACC < DAT

(cf. Harbert, 1978; Pittner, 1995; Vogel, 2001; Grosu, 2003a)

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

(3) Uns besucht, **wen Maria mag**.
us visit$_{[NOM]}$ RP.ACC Maria like$_{[ACC]}$
'Who visits us, Maria likes.'
(Modern German, adapted from Vogel 2001: 343)

(4) Uns besucht, **wem Maria vertraut**.
us visit$_{[NOM]}$ RP.DAT Maria trust$_{[DAT]}$
'Who visits us, Maria trusts.'
(Modern German, adapted from Vogel 2001: 343)

NOM < ACC < DAT in Modern German

NOM < ACC < **DAT**

(cf. Harbert, 1978; Pittner, 1995; Vogel, 2001; Grosu, 2003a)

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

(3) Uns besucht, **wen Maria mag**.
us visit$_{[NOM]}$ RP.ACC Maria like$_{[ACC]}$
'Who visits us, Maria likes.'
(Modern German, adapted from Vogel 2001: 343)

(4) Uns besucht, **wem Maria vertraut**.
us visit$_{[NOM]}$ RP.DAT Maria trust$_{[DAT]}$
'Who visits us, Maria trusts.'
(Modern German, adapted from Vogel 2001: 343)

(5) *Uns besucht, wem Maria vertraut.

NOM < ACC < DAT in Modern German

NOM < ACC < DAT

(cf. Harbert, 1978; Pittner, 1995; Vogel, 2001; Grosu, 2003a)

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

(3) Uns besucht, **wen Maria mag**.
us visit$_{[NOM]}$ RP.ACC Maria like$_{[ACC]}$
'Who visits us, Maria likes.'
(Modern German, adapted from Vogel 2001: 343)

(4) Uns besucht, **wem Maria vertraut**.
us visit$_{[NOM]}$ RP.DAT Maria trust$_{[DAT]}$
'Who visits us, Maria trusts.'
(Modern German, adapted from Vogel 2001: 343)

NOM < ACC < DAT in other languages

NOM < ACC < DAT in other languages

NOM < ACC < DAT

NOM < ACC < DAT in other languages

NOM < ACC < DAT

(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)

NOM < ACC < DAT in other languages

NOM < ACC < DAT

(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)

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

NOM < ACC < DAT in other languages

NOM < ACC < DAT

(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)

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

(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

INT/EXT in Modern German

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

INT/EXT in Modern German

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

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

INT/EXT in Modern German

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

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

INT/EXT in Modern German

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

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

(9) *Ich vertraue, wem **auch Maria mag**.
I trust$_{[DAT]}$ RP.DAT also Maria like$_{[ACC]}$
'I trust whoever Maria also likes.'
(Modern German, adapted from Vogel 2001: 345)

INT/EXT in Modern German

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

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

(9) *Ich vertraue, wem **auch Maria mag**.
I trust$_{[DAT]}$ RP.DAT also Maria like$_{[ACC]}$
'I trust whoever Maria also likes.'
(Modern German, adapted from Vogel 2001: 345)

INT/EXT in Modern German

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

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

(9) *Ich vertraue, wem **auch Maria mag**.
I trust$_{[DAT]}$ RP.DAT also Maria like$_{[ACC]}$
'I trust whoever Maria also likes.'
(Modern German, adapted from Vogel 2001: 345)

- INT: yes
- EXT: no

INT/EXT overview in Modern German

INT/EXT overview in Modern German

- INT: yes
- EXT: no

INT/EXT overview in Modern German

- INT: yes
- EXT: no

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

INT/EXT in Old High German

INT/EXT in Old High German

- INT: yes
- EXT: yes

INT/EXT in Old High German

- INT: yes
- EXT: yes

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

INT/EXT in Old High German

- INT: yes
- EXT: yes

(10) **themo min uuirdit forlazan**, min minnot
RP.DAT less become read$_{[DAT]}$ less love$_{[NOM]}$
'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

- INT: yes
- EXT: yes

(10) **themo min uuirdit forlazan**, min minnot
RP.DAT less become read$_{[DAT]}$ less love$_{[NOM]}$
'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	[NOM]	[ACC]	[DAT]
[NOM]	NOM	ACC	DAT
[ACC]	ACC	ACC	DAT
[DAT]	DAT	DAT	DAT

INT/EXT in Polish

INT/EXT in Polish

- INT: no
- EXT: no

INT/EXT in Polish

- INT: no
- EXT: no

(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**.
Jan like[ACC] RP.DAT ever tease[DAT]
'Jan likes whoever he teases.'
(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)

INT/EXT in Polish

- INT: no
- EXT: no

(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)

(13) *Jan ufa komu **-kolkwiek wpuścił 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)

(14) Jan lubi kogo -kolkwiek Maria lubi.
Jan like[ACC] RP.ACC ever Maria like[ACC]
'Jan likes whoever Maria likes.'
(Polish, adapted from Citko 2013 after Himmelreich 2017: 17)

INT/EXT in Polish

- INT: no
- EXT: no

(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)

(13) *Jan ufa komu **-kolkwiek wpuścił 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)

(14) Jan lubi kogo -kolkwiek Maria lubi.
Jan like[ACC] RP.ACC ever Maria like[ACC]
'Jan likes whoever Maria likes.'
(Polish, adapted from Citko 2013 after Himmelreich 2017: 17)

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

INT/EXT overview

INT/EXT overview

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
[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
[DAT]	DAT	DAT	DAT

Table 3: Polish pattern

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

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

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
[DAT]	DAT	DAT	DAT

Table 3: Polish pattern

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

This presentation

This presentation

- Illustrate generalizations with data
  - NOM < ACC < DAT = stable
  - the INT/EXT parameter
- Derive generalizations from the theory
  - NOM < ACC < DAT = stable
  - the INT/EXT parameter

The stable NOM < ACC < DAT

The stable NOM < ACC < DAT

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

	3SG
NOM	luw
ACC	
DAT	

The stable NOM < ACC < DAT

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

	3SG
NOM	luw
ACC	luw-e:l
DAT	

The stable NOM < ACC < DAT

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

	3SG
NOM	luw
ACC	luw-e:l
DAT	luw-e:l-na

The stable NOM < ACC < DAT

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

	3SG
NOM	luw
ACC	luw-e:l
DAT	luw-e:l-na

- syncretism patterns (cf. Baerman, Brown, and Corbett, 2005)

The stable NOM < ACC < DAT

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

	3SG
NOM	luw
ACC	luw-e:l
DAT	luw-e:l-na

- syncretism patterns (cf. Baerman, Brown, and Corbett, 2005)
- agreement (cf. Moravcsik, 1978)

The stable NOM < ACC < DAT

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

	3SG
NOM	luw
ACC	luw-e:l
DAT	luw-e:l-na

- syncretism patterns (cf. Baerman, Brown, and Corbett, 2005)
- agreement (cf. Moravcsik, 1978)
- relativization (cf. Keenan and Comrie, 1977)

The stable NOM < ACC < DAT

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

	3SG
NOM	luw
ACC	luw-e:l
DAT	luw-e:l-na

- syncretism patterns (cf. Baerman, Brown, and Corbett, 2005)
- agreement (cf. Moravcsik, 1978)
- relativization (cf. Keenan and Comrie, 1977)

a single trigger

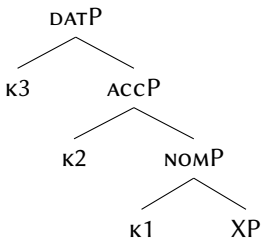
The stable NOM < ACC < DAT

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

	3SG
NOM	luw
ACC	luw-e:l
DAT	luw-e:l-na

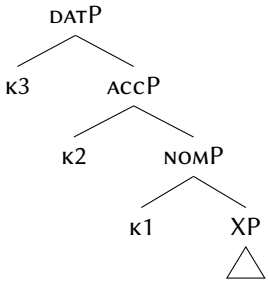
- syncretism patterns (cf. Baerman, Brown, and Corbett, 2005)
- agreement (cf. Moravcsik, 1978)
- relativization (cf. Keenan and Comrie, 1977)

a single trigger

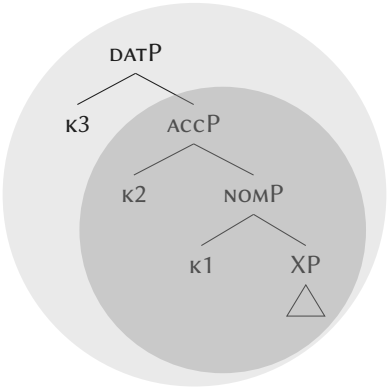


(Caha, 2009, 2019)

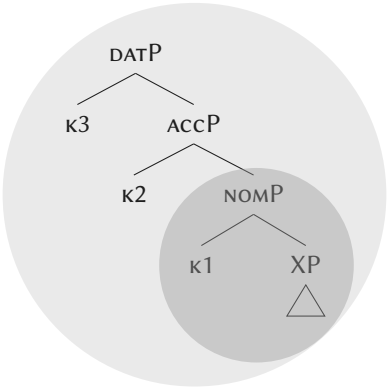
The winning case contains the losing case



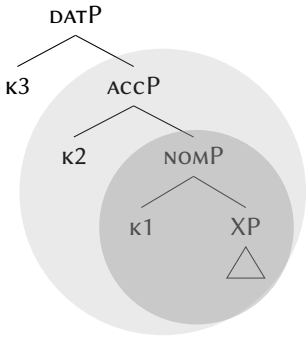
The winning case contains the losing case



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

Table 7: Old High German pattern

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

Table 8: 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 8: 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 8: Polish pattern

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

	INT = allowed to surface	Vogel: constraints	Himmelreich: agree
Modern German	yes	x < y	upwards
Polish	no	y < x	downwards

Aim of my dissertation

same syntax same spellout algorithm difference: lexicon (Borer-Chomsky Conjecture)

Assumptions

Assumptions

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

Assumptions

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

Assumptions

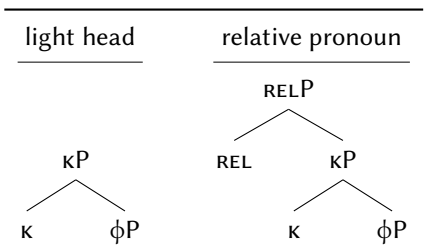
- headless relatives are derived from light-headed relatives, headed by a special type of light head
  ~~light head~~$_{\overline{\text{EXT}}}$ [relative pronoun$_{\text{INT}}$ ...]

Assumptions

- headless relatives are derived from light-headed relatives, headed by a special type of light head
  ~~light head~~$_{\overline{\text{EXT}}}$ [relative pronoun$_{\text{INT}}$ ...]
- deletion takes place when the relative pronoun contains the light head as a single constituent

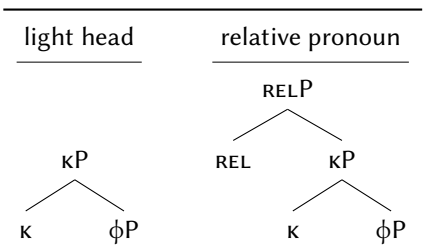
Assumptions

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



Assumptions

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



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

Light head and relative pronoun in Modern German

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

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

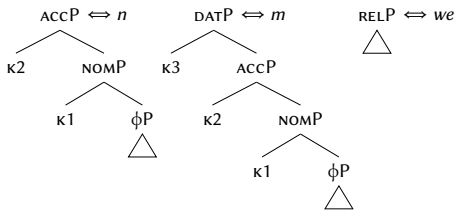
Light head and relative pronoun in Modern German

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 (Nanosyntax, Starke 2009)



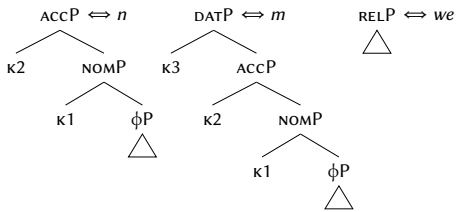
Light head and relative pronoun in Modern German

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

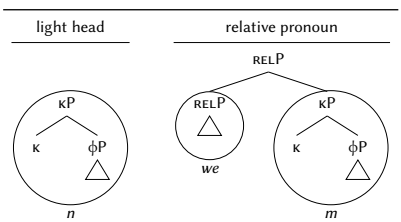
Table 9: Modern German LH and RP

LH	RP
n	we-m

lexicon (Nanosyntax, Starke 2009)



internal syntax



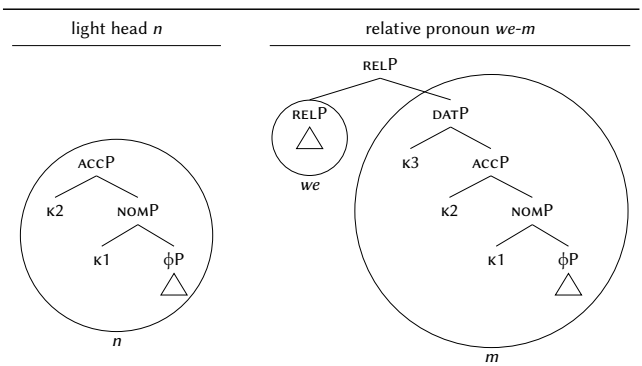
ACC_{EXT} vs. DAT_{INT} in Modern German

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

(15) 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)

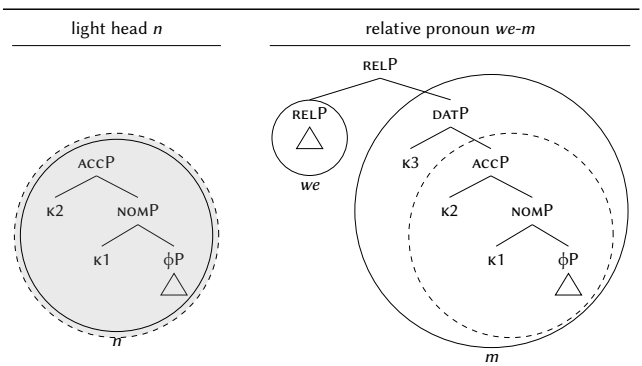
ACC_{EXT} vs. DAT_{INT} in Modern German

(15) 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)



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

(15) 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)



Light head and relative pronoun in Polish

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

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

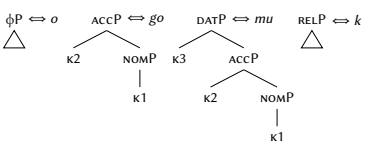
Light head and relative pronoun in Polish

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



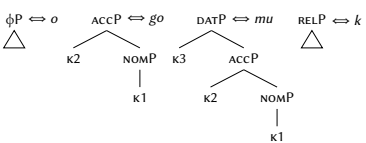
Light head and relative pronoun in Polish

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

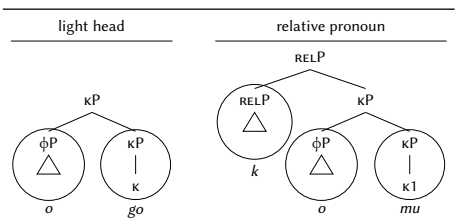
Table 10: Polish LH and RP

LH	RP
o-go	k-o-mu

lexicon

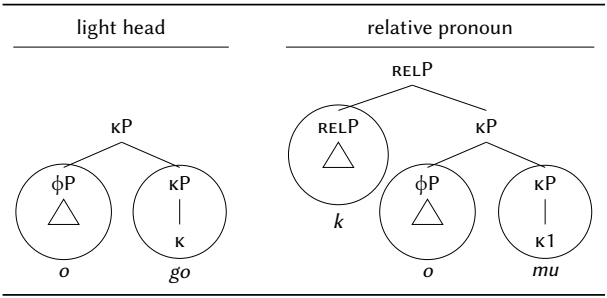


internal syntax



Comparing Polish to Modern German

Comparing Polish to Modern German



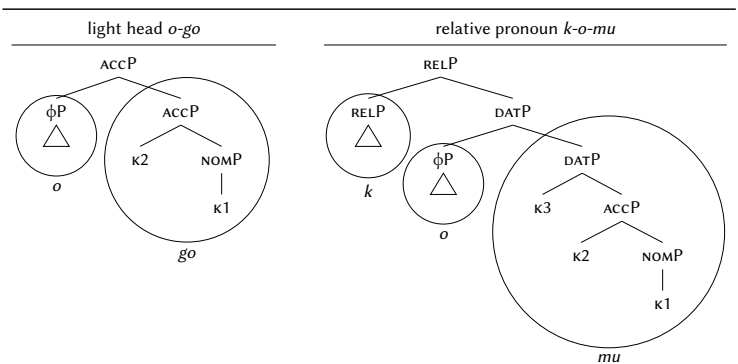
ACC_{EXT} vs. DAT_{INT} in Polish

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

(16) *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)

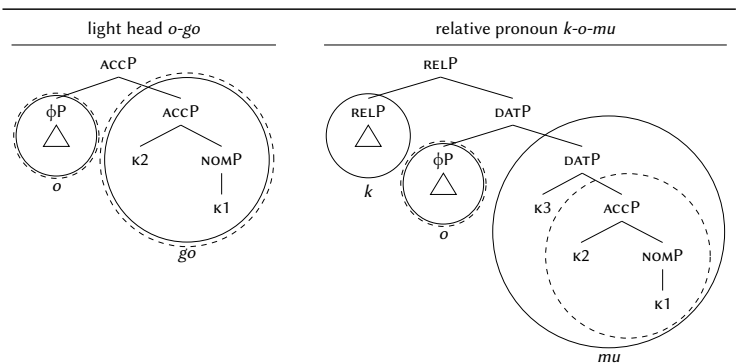
ACC_{EXT} vs. DAT_{INT} in Polish

(16) *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)



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

(16) *Jan lubi ~~ogo~~ **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)



INT/EXT

INT/EXT

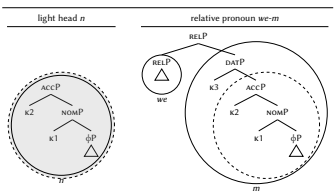
	INT = allowed to surface
Modern German	yes
Polish	no

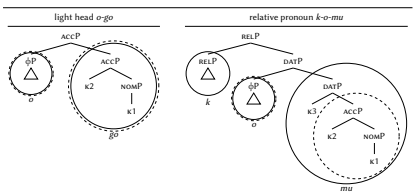
INT/EXT

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

INT/EXT

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





Conclusion

Conclusion

two factors influence grammaticality

Conclusion

two factors influence grammaticality

- the case of the relative pronoun
  - the winner is determined by **NOM < ACC < DAT**
  - is stable across languages

Conclusion

two factors influence grammaticality

- the case of the relative pronoun
  - the winner is determined by **NOM < ACC < DAT**
  - is stable across languages

follows from how case is organized in syntax [[[NOM]ACC]DAT]
winning case contains losing case

Conclusion

two factors influence grammaticality

- the case of the relative pronoun
  - the winner is determined by **NOM < ACC < DAT**
  - is stable across languages

follows from how case is organized in syntax [[[NOM]ACC]DAT]
winning case contains losing case

- where the winning case comes from
  - **INT**/**EXT** case is allowed to surface when it wins
  - differs across languages

Conclusion

two factors influence grammaticality

- the case of the relative pronoun
  - the winner is determined by **NOM < ACC < DAT**
  - is stable across languages

follows from how case is organized in syntax [[[NOM]ACC]DAT]
winning case contains losing case

- where the winning case comes from
  - **INT**/**EXT** case is allowed to surface when it wins
  - differs across languages

INT is allowed to surface =
ϕ+K portmanteau =
RP contains LH as a single constituent

Conclusion

two factors influence grammaticality

- the case of the relative pronoun
  - the winner is determined by **NOM < ACC < DAT**
  - is stable across languages

follows from how case is organized in syntax [[[NOM]ACC]DAT]
winning case contains losing case

- where the winning case comes from
  - **INT**/**EXT** case is allowed to surface when it wins
  - differs across languages

INT is allowed to surface =
ϕ+K portmanteau =
RP contains LH as a single constituent

two factors $\longrightarrow$ one factor: containment

References

Citko, Barbara (2013). “Size matters: Multidominance and DP structure in Polish”. In: *Talk at the th Poznan Linguistic Meeting*.

Daskalaki, Evangelia (2011). “Case Mis-Matching as Kase Stranding”. In: *University of Pennsylvania Working Papers in Linguistics.* Ed. by Lauren A. Friedman. Vol. 17. Philadelphia: Penn Linguistics Club, pp. 77–86.

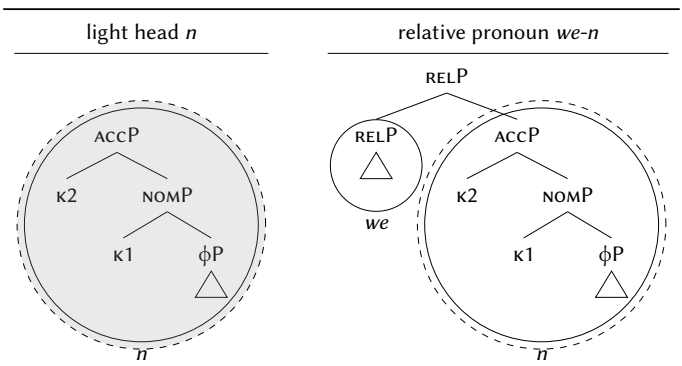
Harbert, Wayne Eugene (1978). “Gothic syntax: a relational grammar”. PhD thesis. Urbana-Champaign.

Himmelreich, Anke (2017). “Case Matching Effects in Free Relatives and Parasitic Gaps: A Study on the Properties of Agree”. PhD thesis. Universität Leipzig.

Vogel, Ralf (2001). “Case Conflict in Modern German Free Relative Constructions: An Optimality Theoretic Treatment”. In: *Competition in Syntax.* Ed. by Gereon Müller and Wolfgang Sternefeld. Berlin: Mouton de Gruyter, pp. 341–375. doi: 10.1515/9783110829068.341.

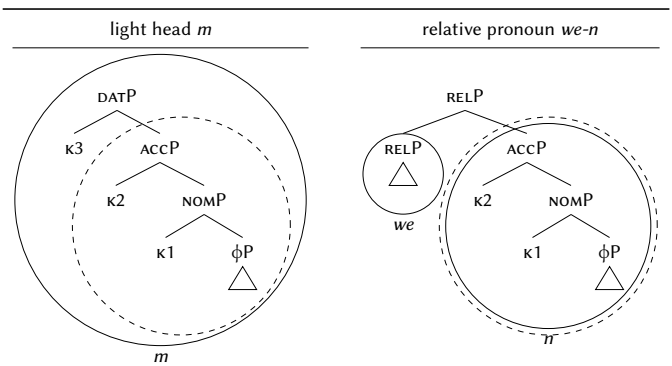
ACC_{EXT} vs. ACC_{INT} in Modern German

(17) 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)



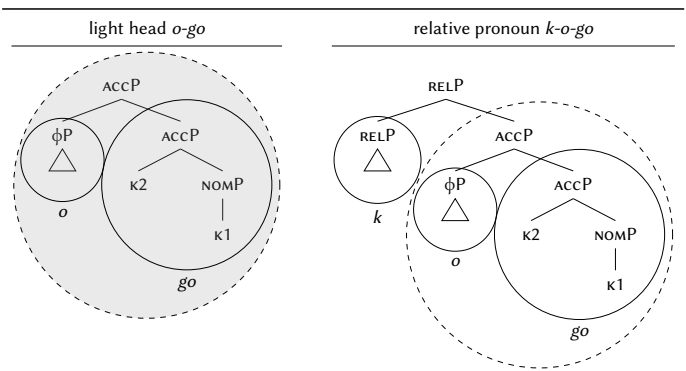
DAT_{EXT} vs. ACC_{INT} in Modern German

(18) *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)



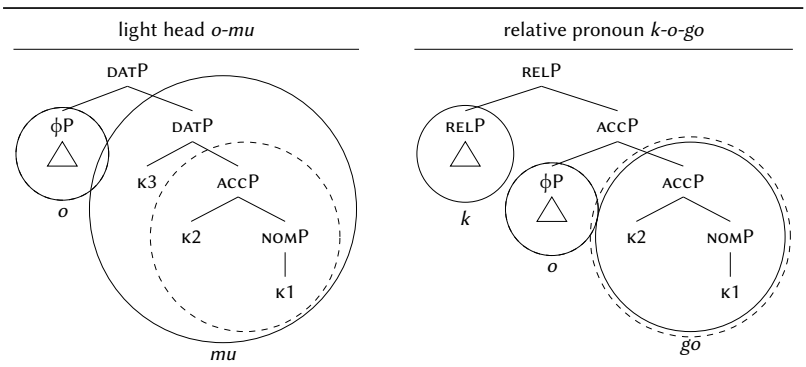
ACC_{EXT} vs. ACC_{INT} in Polish

(19) 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

(20) *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)

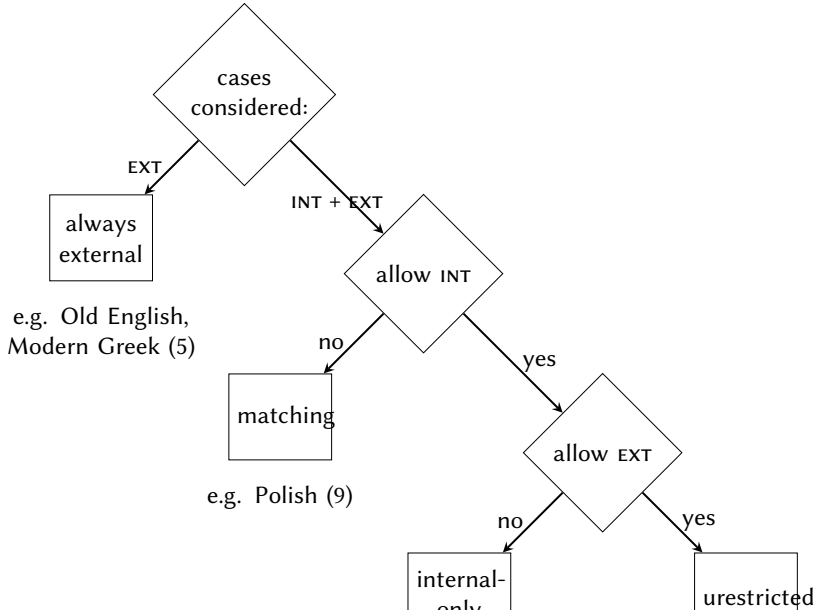


Weak and strong definites as head of a relative clause

(21) *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)

(22) 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

extra stuff * cinque trees * ohg comparisons