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Topic drop in German

Grammar and usage

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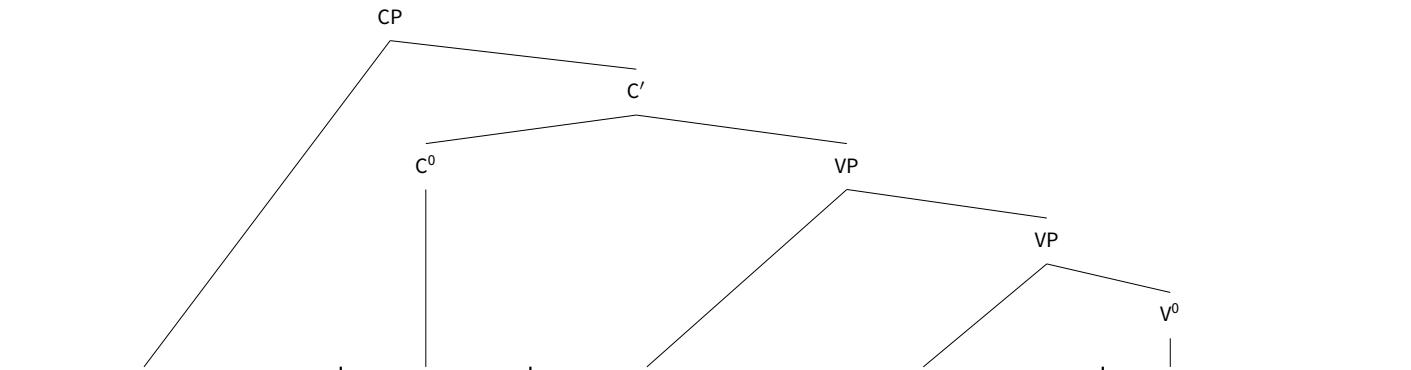
Outline

Describing TD structures

Describing TD structures

canonical German declarative clauses: XP in *Vorfeld* + V2



Den Aufsatz	muss	der Schüler morgen	schreiben.
the essay	must	the student tomorrow	write

‘The student must write the essay tomorrow.’

(vgl. Drach 1937, Wöllstein 2010, a.o.)

Describing TD structures

There is a subtype of **declarative clauses** in German (1)
with a **V1 structure** (2), similar to polar questions (3),
but with **assertive meaning**. → **Topic Drop**

(also called: null topic, pronoun zap, pre-field ellipsis, …)

(1) [Den Aufsatz]$_{VF}$ muss der Schüler morgen schreiben. [declarative]
the essay must the student tomorrow write
'The student must write the essay tomorrow.'

(2) [—]$_{VF}$ muss der Schüler ~~den Aufsatz~~ morgen schreiben. [topic drop]
must the student the essay tomorrow write
'The student must write (the essay) tomorrow.'

(3) [—]$_{VF}$ Muss der Schüler den Aufsatz morgen schreiben? [polar Q]
must the student the essay tomorrow write

(Huang 1984, Fries 1988, Cardinaletti 1990, Wöllstein 2010, Müller 2014, Frick 2017, Schäfer 2021)

Describing TD structures

One constituent must be **dropped** (5) and cannot be realised (6).

(4) [Den Aufsatz]$_{VF}$ muss der Schüler morgen schreiben. [declarative]
the essay must the student tomorrow write

(5) [—]$_{VF}$ muss der Schüler ~~den Aufsatz~~ morgen schreiben. [topic drop]
must the student the essay tomorrow write
'The student must write (the essay) tomorrow.'

(6) * [—]$_{VF}$ muss der Schüler den Aufsatz morgen schreiben.
must the student the essay tomorrow write
INTENDED: 'The student must write the essay tomorrow.'

Describing TD structures

The Vorfeld must be left **empty** in TD (8) vs. (9),
although in canonical declaratives it can be filled by any constituent (7).

(7) [Morgen]$_{VF}$ muss der Schüler den Aufsatz schreiben. [declarative]
tomorrow must the student the essay write
'The student must write the essay tomorrow.'

(8) [—]$_{VF}$ muss der Schüler ~~den Aufsatz~~ morgen schreiben. [topic drop]
must the student the essay tomorrow write
'The student must write (the essay) tomorrow.'

(9) * [Morgen]$_{VF}$ muss der Schüler ~~den Aufsatz~~ schreiben.
tomorrow must the student the essay write
INTENDED: 'The student must write (the essay) tomorrow.'

Describing TD structures

Deleted constituent must be **known** in the situation (10)
and it has to be **contextually salient** for the purpose of recoverability. → **Topic**

(10) A: What's going on with the essay?

B: [—]$_{VF}$ muss der Schüler ~~den Aufsatz~~ morgen schreiben.
must the student the essay tomorrow write
'The student must write (the essay) tomorrow.'

B: * [—]$_{VF}$ muss ~~der Schüler~~ den Aufsatz morgen schreiben.
must the student the essay tomorrow write
INTENDED: '(The student) must write the essay tomorrow.'

Describing TD structures

While a contextually salient constituent can be deleted,
focal constituents cannot.

(11) A: Who has seen Lou?

B: [—]$_{VF}$ hab' ich ~~sie~~ gesehen.
have I her seen
'I have seen (her).'

B: * [—]$_{VF}$ hab' ~~ich~~ sie gesehen.
have I her seen
INTENDED: '(I) have seen her.'

(12) A: Who is bigger, Lou or you?

B: * [—]$_{VF}$ bin ~~ich~~ größer.
am I bigger
INTENDED: '(I) am bigger.'

Describing TD structures

Even if **two constituents** are previously mentioned and are contextually salient, only one constituent can be deleted.

(13) A: What's the student doing with the essay?

B: [—]$_{VF}$ muss er ~~den Aufsatz~~ morgen schreiben.
must he the essay tomorrow write
'The student must write (the essay) tomorrow.'

B: [—]$_{VF}$ muss ~~der Schüler~~ ihn morgen schreiben.
must the student it tomorrow write
'(The student) must write it tomorrow.'

B: * [—]$_{VF}$ muss ~~der Schüler~~ ~~den Aufsatz~~ morgen schreiben.
must the student the essay tomorrow write
INTENDED: '(The student) must write (the essay) tomorrow.'

(vgl. Ross 1982, Huang 1984)

Describing TD structures

While **personal pronouns** can be dropped, **anaphors** cannot.

(14) A: I've shaved Tim and Tom already, and what about you?

B: [—]$_{VF}$ hab' ~~ich~~ mich schon rasiert.
have I myself already shaved
'(I) have already shaved myself.'

B: * [—]$_{VF}$ hab' ich ~~mich~~ schon rasiert.
have I myself already shaved
INTENDED: 'I have already shaved (myself).'

Semantically empty pronouns cannot be dropped either.

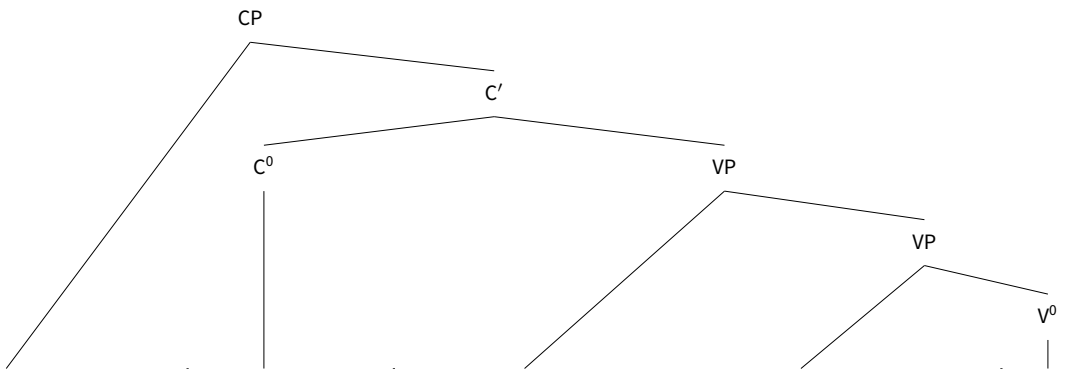
(15) A: How is the weather over there?

B: * [—]$_{VF}$ schneit ~~es~~ im August!
snows it in August
INTENDED: '(It) snows in August!'

Describing TD structures

TD is only possible when the verb is occupying the "**left bracket**"/C^0 position.
Therefore, it is not possible in clauses with a **complementizer**
(i.e. verb final, since fronted verb and complementizer build a natural class).

(cf. Höhle 1997)



VORFELD	LB	MIDDLE FIELD	RB
	muss	der Schüler ~~den Aufsatz~~	schreiben.
	must	the student (the essay)	write
	* dass	der Schüler ~~den Aufsatz~~	schreiben muss.
	that	the student (the essay)	write must

Describing TD structures

From the point of view of **usage**, it has been mentioned that TD

- … is restricted to specific registers or styles,
- … is a structure observed in spoken language,
- … is found mostly in specific text types such as telegrams, private letters, private conversations, comics, etc.

(vgl. Fries 1988, Cardinaletti 1990, Müller 2014, a.o.)

… but no analysis has been provided accounting for grammatical and usage aspects of the structure.

A **descriptively adequate grammar** should not only take "core phenomena" into consideration, but also take attested **marked phenomena** and deliver predictions for their use.

(vgl. Meurers & Müller 2009, Nolda et al. 2014, Culicover et al. 2022, Machicao y Priemer et al. 2022)

That is the goal of our project: https://sfb1412.hu-berlin.de/de/projekte/a04/

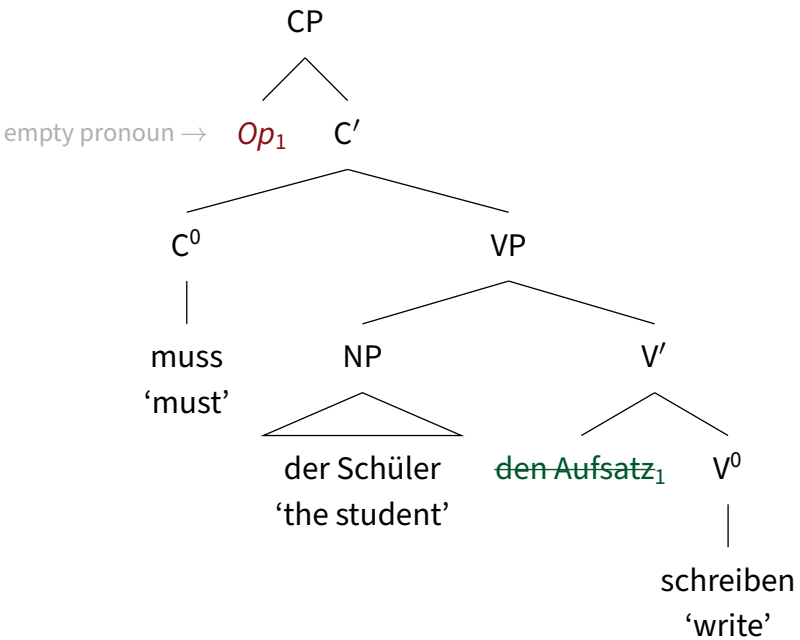
Licensing TD structures

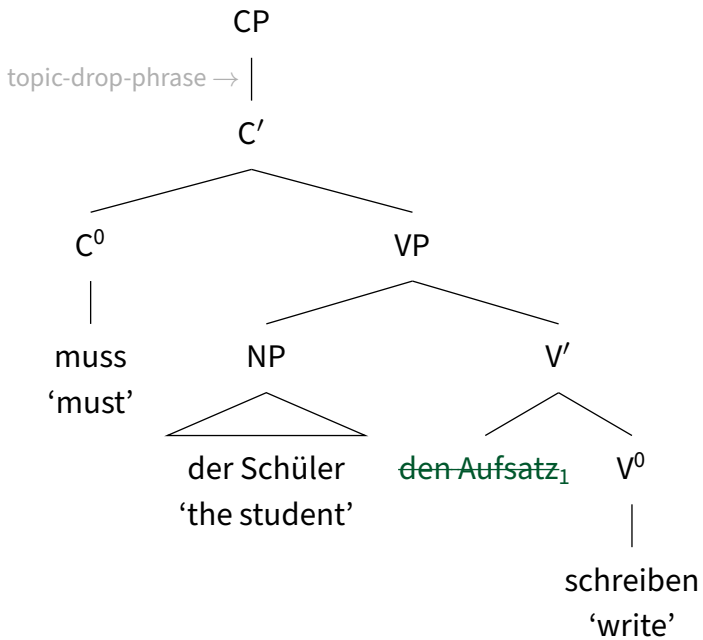
Licensing TD structures

… from a grammatical point of view …

There are two possibilities to deal with TD:

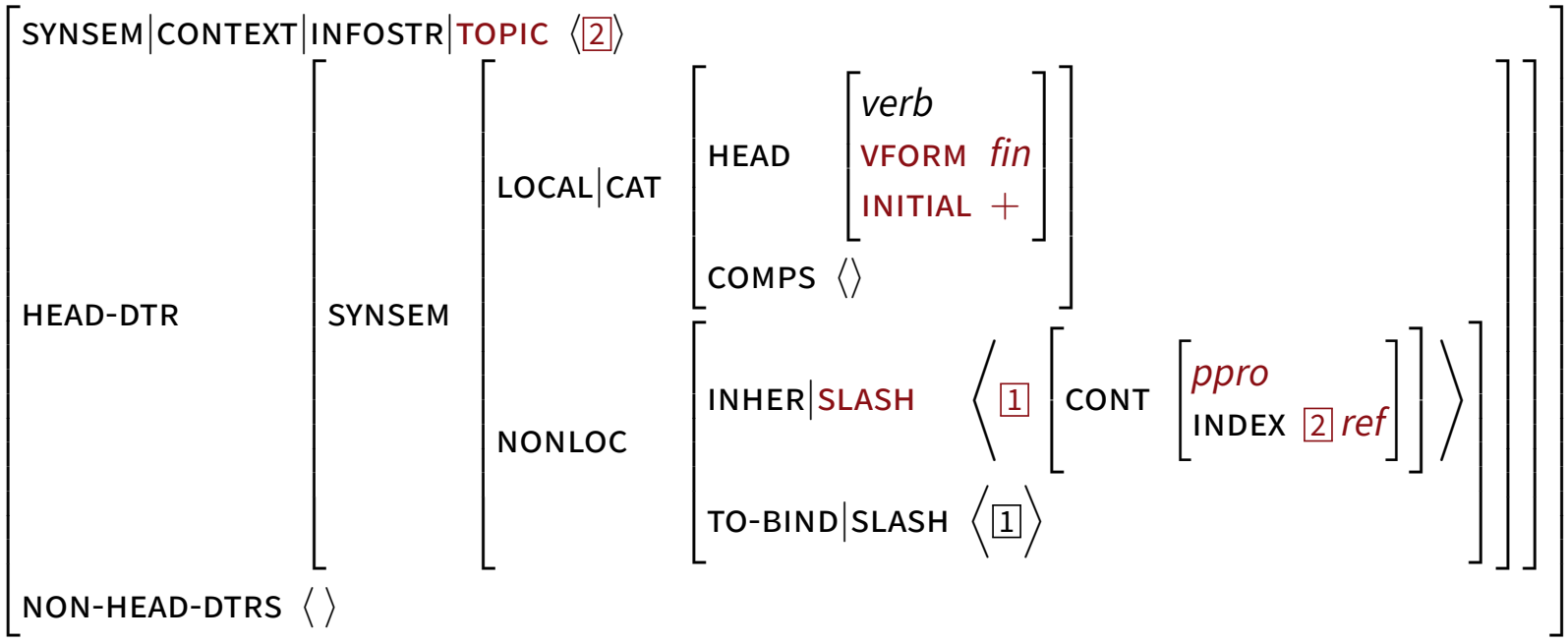
- **phonologically empty pronoun** in the Vorfeld (vgl. Huang 1984, Cardinaletti 1990)
  Problem: How can we restrict its presence only to the Vorfeld?
- a **unary branching rule** binding a referential trace (vgl. Müller 2014)





A new phrasal type

(16) *topic-drop-phrase* ⇒



(based on Müller 2014)

- only V1 phrases (no clauses with complementizer) → VFORM *fin* & INI +
- no anaphoric or semantically empty pronouns → *ppro* & INDEX 2 *ref*
- only one constituent → SLASH ⟨ 1 ⟩
- dropped constituent marked as topic (not focus) → TOPIC ⟨ 2 ⟩

Licensing TD structures

… from the point of view of usage …

A matched-guise experiment

Hypotheses and predictions

Hypotheses and predictions

H1 Listeners assign different characteristics to topic drop users as opposed to full form users.

⇝ Main effect of topic drop

H2 The ratings for speakers who drop the subject are different from those who drop the object.

⇝ Interaction between topic drop and the topicalized argument

A matched-guise experiment

Design and procedures

Design and procedures

- 2×2, within-subjects, within-items
- IVs:
  - TOPIC DROP: topic drop vs. full form
  - ARGUMENT: subject vs. object
- 8 items, 32 fillers
- DV: ratings on a 6-point scale (1 = e.g. not friendly at all, 6 = e.g. very friendly)
- Scales: *höflich* 'polite', *locker* 'relaxed', *freundlich* 'friendly', *gebildet* 'educated', *wortgewandt* 'articulate', *formell* 'formal', *arrogant* 'arrogant', *pingelig* 'pedantic'.
- Online platform Ibex farm

Design and procedures

(17) A: Hast du letzte Woche den Brief geschrieben?
have 2SG.NOM last week DEF.SG.M.ACC letter written
'Did you write the letter last week?'

B: a. Kann ihn morgen schreiben. drop × subj
can 3SG.M.ACC tomorrow write
'(I) can write it tomorrow.'

b. Ich kann ihn morgen schreiben. full × subj
1SG.NOM can 3SG.M.ACC tomorrow write

c. Kann ich morgen schreiben. drop × obj
can 1SG.NOM tomorrow write
'I can write (it) tomorrow.'

d. Den kann ich morgen schreiben. full × obj
DEM.3SG.M.ACC can 1SG.NOM tomorrow write

Participants

- 23 self-reported German native speakers

Gender	Female	Male	Diverse	Not specified
	17	3	1	2

Age	18–25	36–45	56–65
	21	1	1

A matched-guise experiment

Data analysis and results

Data analysis and results

- The data is analyzed in R (R Core Team 2023) with cumulative link mixed models (CLMMs) for ordinal data (Christensen 2022).
- clmm(ratings ~ conddrop * condarg + (1 + conddrop * condarg | participant) + (1 + conddrop * condarg | item), data = data_polite)

Data analysis and results

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Scale	χ^2	p	
polite	15.30	< 0.01	drop < full
friendly	246.38	< 0.01	
educated	18.99	< 0.01	
articulate	22.12	< 0.01	
formal	20.51	< 0.01	
pedantic	4.71	0.03	
arrogant		> 0.05	
relaxed		> 0.05	

Table 1: Main effects of TOPIC DROP.

Data analysis and results

Scale	χ^2	p	
polite	7.66	< 0.01	drop × subj < drop × obj
formal	4.89	0.03	

Table 2: Interactions between TOPIC DROP and ARGUMENT.

Data analysis and results

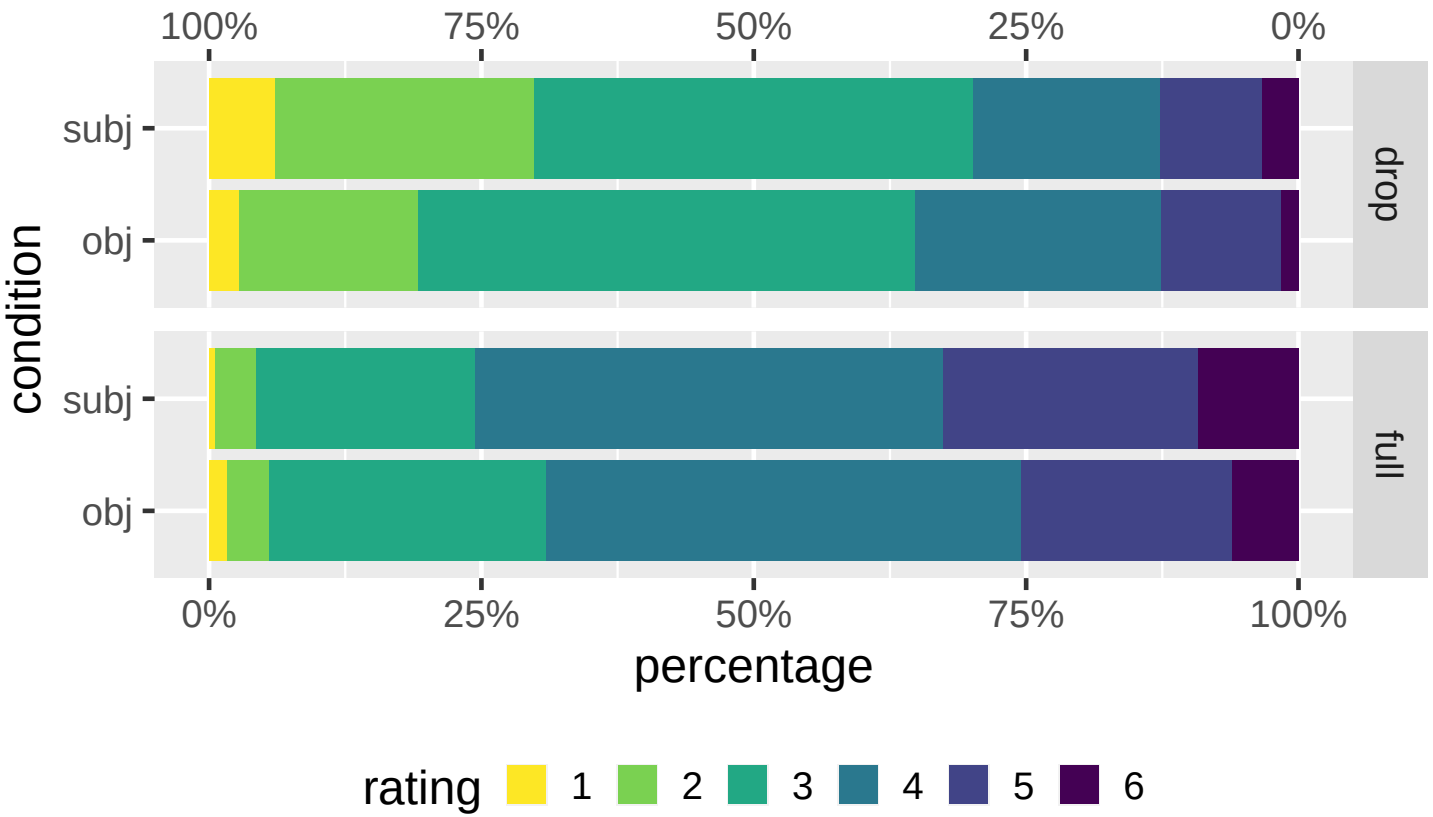


Figure 1: Percentage of each rating by conditions for the polite scale.

A model of sociolinguistic competence

A model of sociolinguistic competence

Grammar and use conditions

Grammar and use conditions

Speakers know more than the **structural licensing conditions** for topic drop

$\rightarrow$ how (and by whom) topic drop is **used**

How do we **relate** this knowledge to grammatical constraints on topic drop?

Use-conditional constraints (UCCs):

(18) *description of linguistic structure* $\Rightarrow$ *description of the admissible context*

Sociolinguistic attitudes and knowledge about situational appropriateness of different variants are part of **linguistic competence**

(Wilcock 1999, Paolillo 2000, Bender 2001; 2007, Asadpour et al. 2022, i.a.)

Grammar and use conditions

UCCs relate linguistic structures to **social meanings** (SMs)

(Bender 2001; 2007, Burnett 2019, Beltrama 2020, Asadpour et al. 2022, Salmon 2022)

(19) A: What is Maria doing with the car?

B: Muss sie morgen verkaufen.
must 1SG.NOM tomorrow sell
'She must sell (it) tomorrow.'
SM: 'I am not formal, not friendly, not articulate …'

Similar to **expressive meanings** (a type of **conventional implicature**)

(Potts 2005; 2007, McCready 2019, Taniguchi 2019, Asadpour et al. 2022, Salmon 2022)

Properties of Social Meanings

Independence: SMs contribute to **separate dimension** of meaning (not at issue)

→ SMs are values of C(ONVENTIONAL)I(MPLICATURE) attribute inside CONTEXT

Indexicality: SMs predicate something of the **utterance situation** (Potts 2007)

→ SMs have a C-INDEX value as one of their arguments

Gradability: SMs hold of individuals to different **degrees** (McCready 2019)

→ SMs take a DEGREE argument (an interval from 0 to 1)

Underspecification: forms are associated with an **indexical field** of related SMs (Eckert 2008; 2012, Oushiro 2019)

→ UCCs relate structures to non-maximal SM types

A hierarchy of social meanings

Indexical field → multiple inheritance hierarchy of SMs

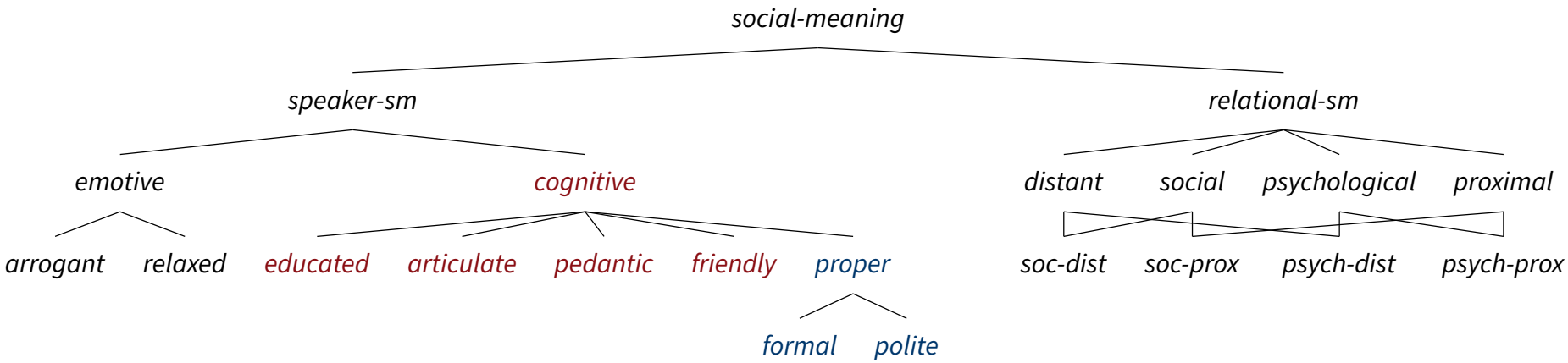


Figure 2: Social meaning hierarchy

Underspecified SMs are **resolved** to maximal sorts in communicative situations (Burnett 2017; 2019, McCready & Henderson 2020)

A model of sociolinguistic competence

The social meanings of topic drop

Use conditions of topic drop

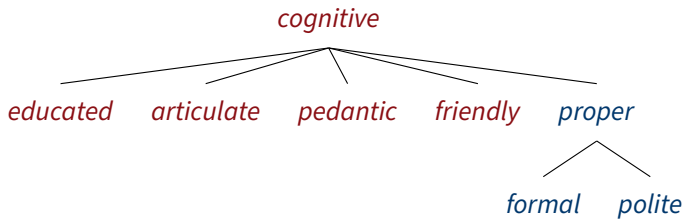
We assume a feature C(ONSTRUCTIONAL)-CI feature (analogous to C-CONT)

$\rightarrow$ SMs of topic drop come from the construction itself

UCCs for **German topic drop**:

(20) *topic-drop-phrase*$\Rightarrow$

$$\left[\begin{array}{l}\text{CTXT}\ \left[\begin{array}{l}\text{C-INDS}\,|\,\text{SPEAKER}\ \boxed{1}\\ \text{C-CI}\ \textit{nelist}\left(\left[\begin{array}{l}\textit{cognitive}\\ \text{ARG}\ \ \boxed{1}\\ \text{DEGR}\ \ (0,.5]\end{array}\right)\right)\end{array}\right]\end{array}\right]$$



(21)

$$\left[\begin{array}{l}\textit{topic-drop-phrase}\\ \text{HD-DTR}\,|\,\text{SLASH}\ \left\langle \text{NP}_{\textit{nom}}\right\rangle\end{array}\right]\Rightarrow\left[\begin{array}{l}\text{CTXT}\ \left[\begin{array}{l}\text{C-INDS}\,|\,\text{SPEAKER}\ \boxed{1}\\ \text{C-CI}\ \textit{nelist}\left(\left[\begin{array}{l}\textit{proper}\\ \text{ARG}\ \ \boxed{1}\\ \text{DEGR}\ \ (0,.3]\end{array}\right)\right)\end{array}\right]\end{array}\right]$$

How do these SMs get integrated into the SM of the clause?

A model of sociolinguistic competence

Social meaning composition

Local CI Projection Principle 1

For each phrase, if its C-CI value and the CI values of its daughters do not have **repeated predications**, then the CI value of the phrase is the concatenation of the CI values of its daughters and its own C-CI value.

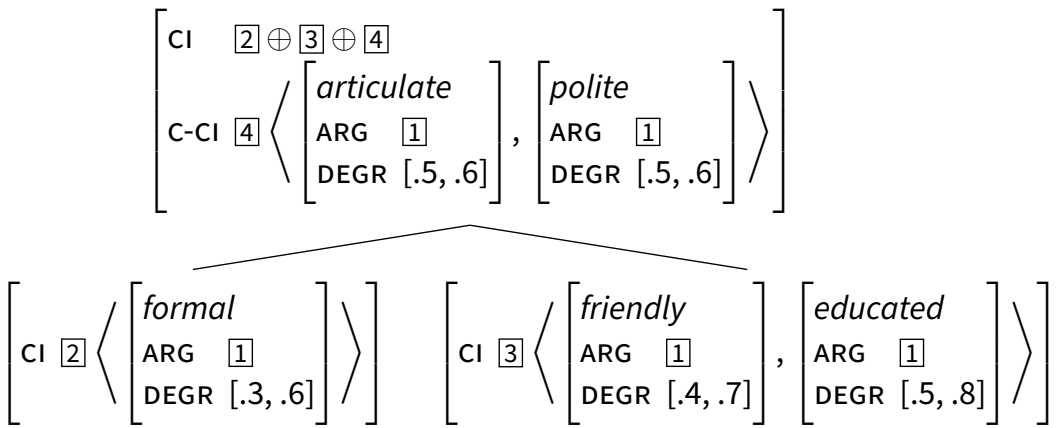


Figure 3: Simple SM composition

Repeated predications: predications of the same type and with the same ARG values but possibly different DEGR values

Local CI Projection Principle 2

For each phrase, if its c-CI value and the CI values of its daughters have **repeated predications** $SM_1, \ldots SM_n$ then the CI value of the phrase is the concatenation of the CI values of its daughters and its c-CI value

(i) **minus** $\langle SM_1 \rangle, \ldots \langle SM_n \rangle$

(ii) **plus** a list of predications of the same type and with the same ARG values as $SM_1, \ldots SM_n$, but with a DEGR value consisting in the intersection between the DEGR values of $SM_1, \ldots SM_n$.

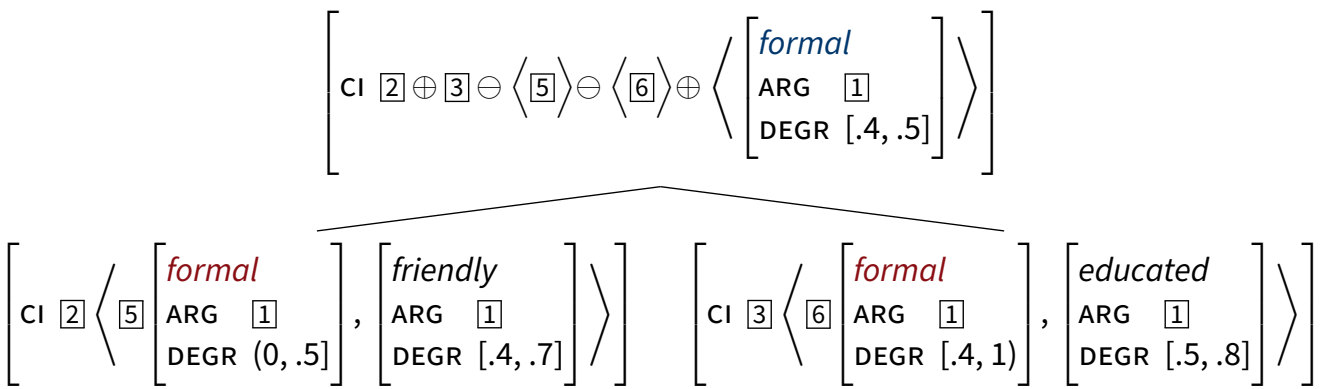


Figure 4: Complex SM composition

Social meaning composition

Result: SMs of the same type get **narrowed**

Repeated SM do not make the utterance **redundant**, but more **specific**

(Potts 2007, Smith et al. 2010, Taniguchi 2019)

Imposes **SM compatibility** within a dimension: repeated SMs must **intersect**

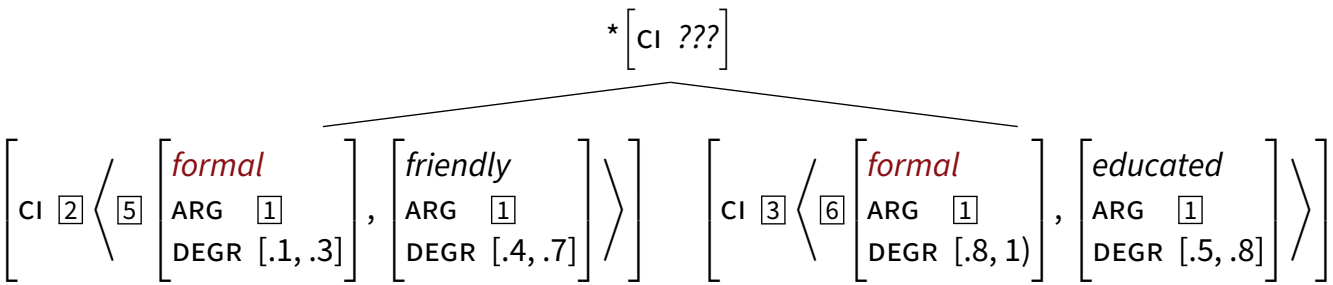


Figure 5: Bad SM composition

Social meaning composition

(22) A: What is Maria doing with the car?

B: Muss sie Ihnen morgen geben.
must 3SG.NOM 2SG.DAT tomorrow give
'She must give (it) to you tomorrow.'

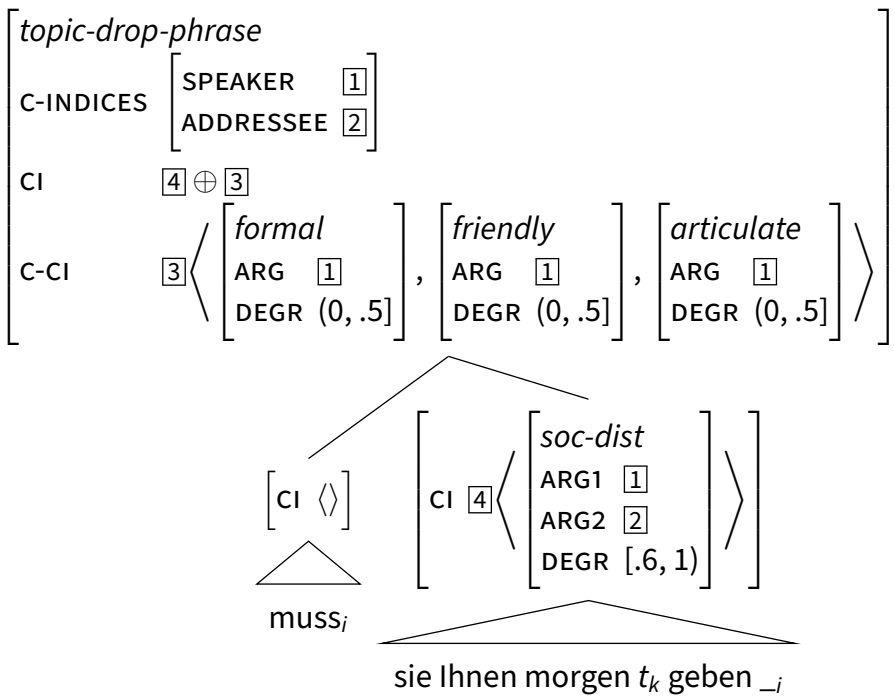


Figure 6: SM composition with Object Topic Drop

Social meaning composition

(23) A: What is Maria doing with the car?

B: Muss es heute verkaufen.
must 3SG.NEUT.ACC today sell
'(She) must sell it today.'

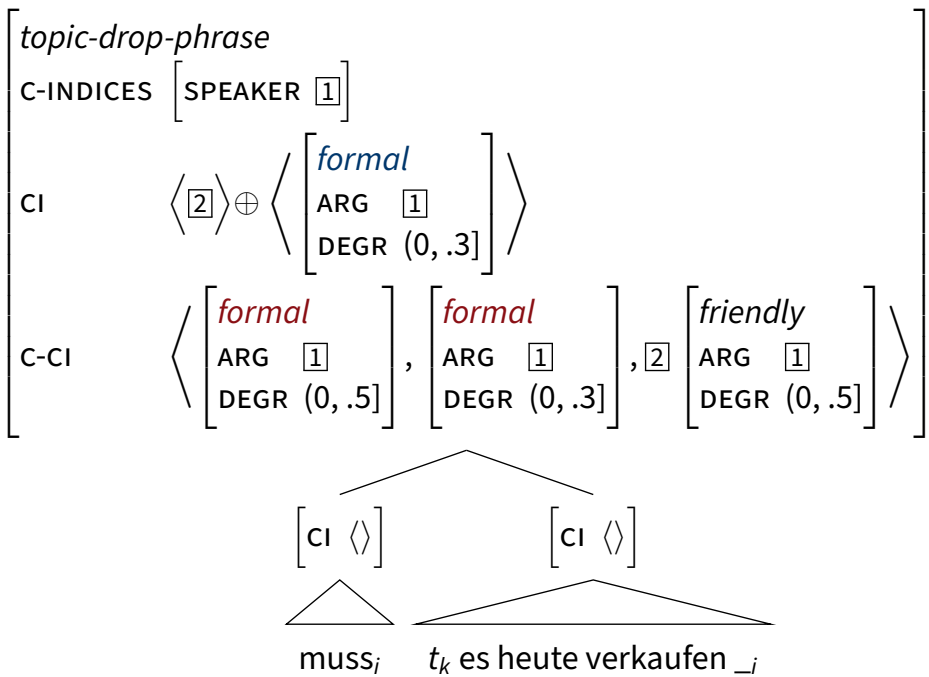


Figure 7: SM composition with Subject Topic Drop

Concluding remarks

Concluding remarks

on a **grammatical** level:

- a single **grammar** licenses both **attested variants** (topic drop, V2) as different **phrasal constructions**

on a **usage** level:

- sociolinguistic perceptions derived by **use conditional constraints**
- use conditions relate forms to **social meanings**
- variants are associated with **underspecified types** in a hierarchy of SMs

consequences:

- **constructions** carry social meaning, not only lexical items
  (contra Adger 2006, Saab 2021)
- abstract **syntactic variables** can be **socially monitored**
  (contra Labov 2001, Meyerhoff & Walker 2013, Eckert & Labov 2017, i.a.)

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