71. StuTS + 31. TaCoS - May 27th 2022

An experimental approach to principle C in German

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Overview

1. Introduction
2. Background: principle C and principle C violations
3. Frey's (1993) principle C data
4. Modifed NPs: a judgment task
5. Summary and conclusion

Principle C

Introduction

A very basic example:

(1) (Bruening 2014: 344)

a. *She$_1$ likes Bernice's$_1$ friends.

b. Her$_1$ mother likes Bernice's$_1$ friends.

Principle C

Introduction

(1) (Bruening 2014: 344)

a. *She$_1$ likes Bernice's$_1$ friends.

b. Her$_1$ mother likes Bernice's$_1$ friends.

(2) **Principle C** (Chomsky 1984 [1981]: 188. ex. 12)

An R-expression is free.

(3) **C-command** (Reinhart 1983: 18, ex. 10)

Node A c(constituent)-commands node B iff the branching node most immediately dominating A also dominates B.

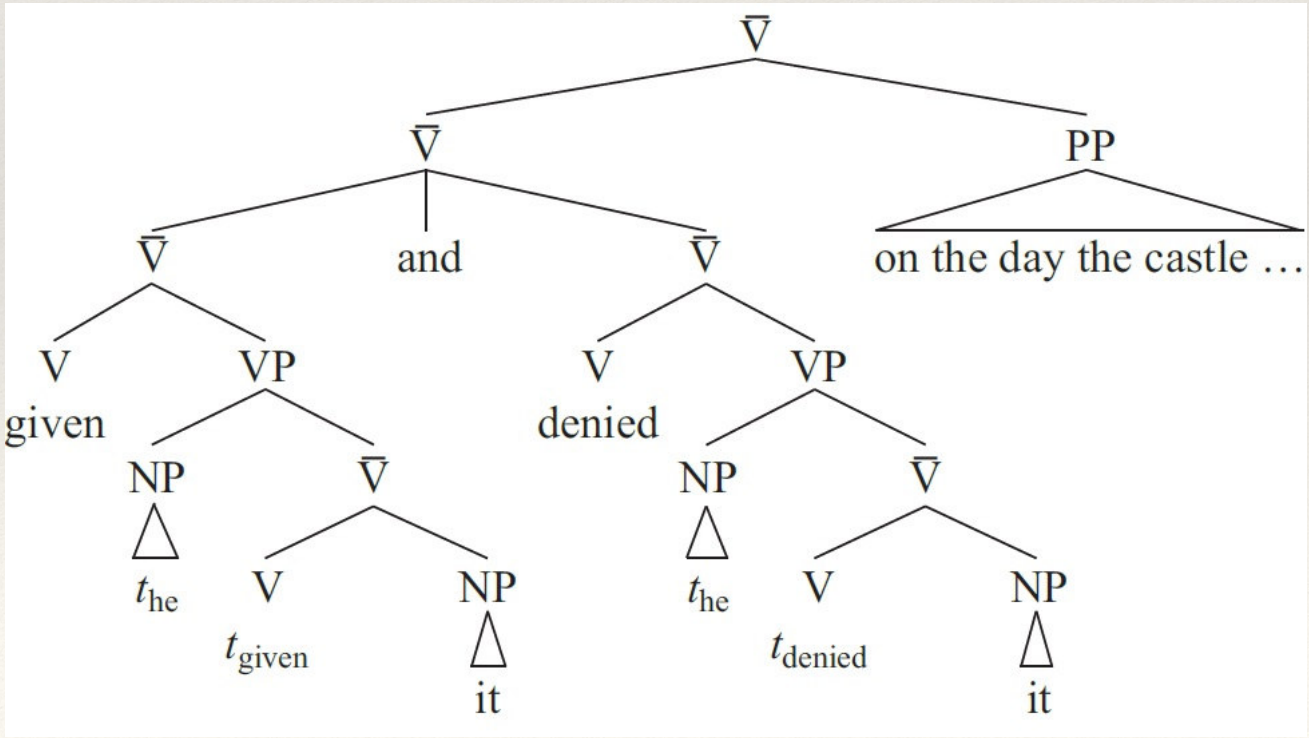
An alternative

Background: principle C and principle C violations

(Bruening 2014: 354, exx. 44, 45c)

(4) *He was first given it_1 and then denied it_1 on the day the $castle_1$ was erected.

(5)



Principle C

Background: principle C and principle C violations

(6) (Bolinger 1977: 23, exx. 220, 221)

a. *He_1 lost the money, and $John_1$ found it again.

b. He_1 lost the money, and then $John_1$ found it again.

(7) (Bolinger 1977: 17, exx. 134, 135)

a. *He_1 was just a little boy when I saw $John_1$.

b. He_1 was just a little boy when I first saw $John_1$.

Minimize Restrictors!

Background: principle C and principle C violations

Is principle C (partially) determined by pragmatic factors?

Minimize Restrictors! (Schlenker 2005)

(8) (Schlenker 2005: 391, ex. 13)

> A definite description *the A B* [where the order of *A*. vs. *B*. is irrelevant] is deviant if *A* is redundant, i.e. if:
>
> (i) *The B* is grammatical and has the same denotation as *the A* (=Referential Irrelevance), and
>
> (ii) A does not serve another purpose (=Pragmatic Irrelevance)

Minimize Restrictors!

Background: principle C and principle C violations

(8) (Schlenker 2005: 391, ex. 13)

A definite description *the A B* [where the order of *A*. vs. *B*. is irrelevant] is deviant if *A* is redundant, i.e. if:

(i) *The B* is grammatical and has the same denotation as *the A* (=Referential Irrelevance), and

(ii) A does not serve another purpose (=Pragmatic Irrelevance)

(9) **Expressive content** (Schlenker 2005: 386, ex. 3)

John$_1$/(?) he$_1$ is so careless that [the idiot$_1$] will get killed in an accident one of these days.

Other factors

Background: principle C and principle C violations

Other pragmatic (?) factors permitting the violation of principle C:

(10) **Afterthoughtiveness/separation** (Bolinger 1977: 23, exx. 220, 221)

a. *He_1 lost the money, and $John_1$ found it again.

b. He_1 lost the money, and then (later, before long) $John_1$ found it again.

Two questions

Background: principle C and principle C violations

1) **Is it correct that principle C holds except for in the case of selected "pragmatic exceptions"?**
2) **What about languages other than English?**

Principle C in German

Frey's (1993) principle C data

- Frey argues that base and surface positions are relevant for principle C in German and that reconstruction effects are stable

(11) (Frey 1993: 144, exx. 3,4)

a. *Sie hat ihm$_1$ Peters$_1$ Buch zurückgegeben.

'She has returned Peter's book to him.'

b. *Sie hat ihn$_1$ Peters$_1$ eigenem Test unterzogen.

'She has subjected him to Peter's own test.'

c. *Peters$_1$ Buch hat sie ihm$_1$ zurückgegeben.

'Peter's own book she has returned to him.'

d. *Peters$_1$ eigenem Test hat sie ihn$_1$ unterzogen.

'Peter's own test she has subjected him to.'

Hypotheses

Modified NPs: a judgment task

1. The presence of c-command decreases the acceptability of coreferential readings.
2. Coreference between a pronoun c-commanding an R-expression becomes possible in the condition in which those items are semantically modified.
3. Coreference between an R-expression preceding a co-indexed pronoun is possible in all items tested, irrespective of c-command.

Data construction

Modified NPs: a judgment task

- Design: 2x2x2, 8 conditions
- NP ordering: pronoun – R-expression vs. R-expression – pronoun
- C-command vs. No c-command
- Modified NP vs. unmodified NP

Data construction

Modified NPs: a judgment task

(12) a. Peter$_1$ hat sie sein$_1$ Buch zurückgegeben. **C-command**

'To Peter, she has returned his book.' **Name - pronoun**

b. Peter$_1$ hat sie sein$_1$ eigenes Buch zurückgegeben.

'To Peter, she has returned his own book.'

Data construction

Modified NPs: a judgment task

(13) **c. Sie hat ihm$_1$ Peters$_1$ Buch zurückgegeben.** **C-command**

'She has returned Peter's book to him.' **Pronoun - name**

d. Sie hat ihm$_1$ Peters$_1$ eigenes Buch zurückgegeben.

'She has returned Peter's own book to him.'

Data construction

Modified NPs: a judgment task

(14) **e. Peters$_1$ Buch hat sie ihm$_1$ zurückgegeben.** **No c-command**

'Peter's book, she has returned to him.' **Name - pronoun**

f. Peters$_1$ eigenes Buch hat sie ihm$_1$ zurückgegeben.

'Peter's own book, she has returned to him.'

Data construction

Modified NPs: a judgment task

(15) g. Sein$_1$ Buch hat sie Peter$_1$ zurückgegeben. **No c-command**

'His book, she has returned to Peter.' **Pronoun - name**

h. Sein$_1$ eigenes Buch hat sie Peter$_1$ zurückgegeben.

'His own book, she has returned to Peter.'

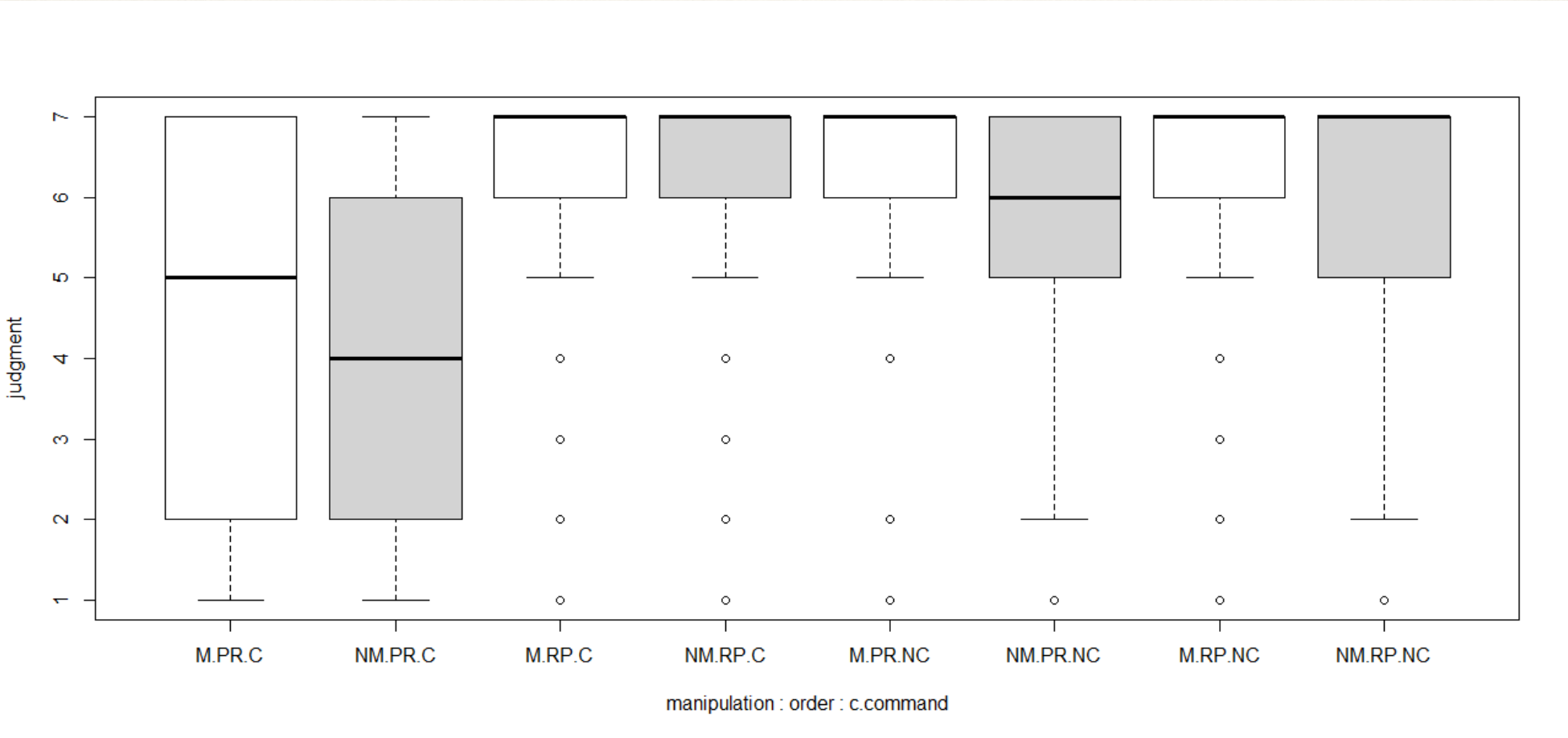
Data analysis

Modified NPs: a judgment task

- data was analyzed with R (R Core Team) and the package *Ordinal* (Christensen 2019)
- cumulative linked mixed model with three fixed effects (modification, c-command, order)
- two random effects: item and participant

Test results

Modified NPs: a judgment task



Test results

Modified NPs: a judgment task

- significant main effect of modification ($p < 0.001$)
- significant main effect of c-command ($p < 0.001$)
- significant main effect of order ($p < 0.001$)
- significant interaction effect of order and c-command ($p < 0.001$)
- no other significant main or interaction effects

Test results

Modified NPs: a judgment task

What do the results tell us?

- modified NPs increase the acceptability of coreference (not every kind of modification seems to work)
- *eigen* 'own' modifications worked best
- can this be explained in terms of *Minimize Restrictors!*?

(16) Sie hat ihm$_1$ Peters$_1$ eigenes Buch zurückgegeben.

'She has returned Peter's own book to him.'

Test results

Modified NPs: a judgment task

What do the results tell us?

- Many non-modified items turned out to be better than they are supposed to be under a c-command theory

An example of 'afterthoughtiveness':

(17) Sie_1 war 18 Jahre alt, als $Maria_1$ ein Auto bekommen hat.

'She was 18 years old when Maria got a car.'

Test results

Modified NPs: a judgment task

What do the results tell us?

- reconstruction effects did not surface in my experiment:

(18) (Frey 1993: 144, ex. 4)

a. Peters$_1$ Buch hat sie ihm$_1$ zurückgegeben.

'Peter's own book she has returned to him.'

b. Peters$_1$ eigenem Test hat sie ihn$_1$ unterzogen.

'Peter's own test she has subjected him to.'

Summary and conclusion

- Subtle semantic modifications can change the possibility of coreferential readings in German
- Reconstruction effects are not present in my data
- principle C effects are unstable: c-command + *Minimize Restrictors! a*lone cannot explain the data
- possible solution: abandon rigid syntactic principles, find a pragmatic solution?

Thank you for your attention!

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