

PP modifiers do not reconstruct for principle C: Evidence from German wh- and ATB-movement

Timea Szarvas

University of Potsdam, SFB 1287
timea.szarvas@uni-potsdam.de
timeaszarvas.github.io

Previous claims: (i) PP modifiers reconstruct. (ii) Principle C reconstruction in ATB-movement is asymmetric.

(1) Principle C reconstruction under wh-movement

- *[Which article about **John_i**] did **he_i** read ___?
- [Which article on **John's_i** desk] did **he_i** read ___?

- PP modifiers **do reconstruct** (Van Riemsdijk & Williams 1981, a.o.) → **experiments** by Salzmann et al. (2023) and Stockwell et al. (2021, 2022)
- PP modifiers **do not reconstruct** (Bianchi 1995, a.o.) → **experiments** by Adger et al. (2017) and Bruening & Al Khalaf (2019)

(2) Principle C reconstruction under ATB-movement

- *Which picture of **John_i** [did **he_i** like ___] and [Mary dislike ___]?
- Which picture of **John_i** [did Mary like ___] and [**he_i** dislike ___]?

- **violation only in initial conjunct** of ATB → Citko (2005) and Salzmann (2012)
- **reconstruction is symmetric, asymmetry due to linear distance** → Bruening & Al Khalaf (2017)

Idea: Conflicting claims arise from **confounds** → alternative referents, linear order vs. c-command, experimental tasks and designs.

Aim: Keep **factors and items constant** to identify confounds and assess the role of **underlying c-command** in the data.

Exp. 1: Salzmann et al. (2023), adapted

- 12 targets, 48 distractors; 277 participants
- modification: **context sentence**

(3) a. Object, initial conjunct

Ich habe Helen gefragt, welchen Witz über Ute [sie __ mitgehört] und [Mats __ erfunden hat.]

'I asked Helen which joke about Ute she overheard and Mats made up.'

Can this sentence be understood such that...

- ...Helen overheard a joke? yes no
...Ute overheard a joke? yes no

b. Subject, initial conjunct

Ich habe Helen gefragt, welcher Witz über Ute [__ sie irritiert] und [__ Mats amüsiert hat.]

'I asked Helen which joke about Ute irritated her and amused Mats.'

Can this sentence be understood such that...

- ...a joke irritated Helen? yes no
...a joke irritated Ute? yes no

Results:

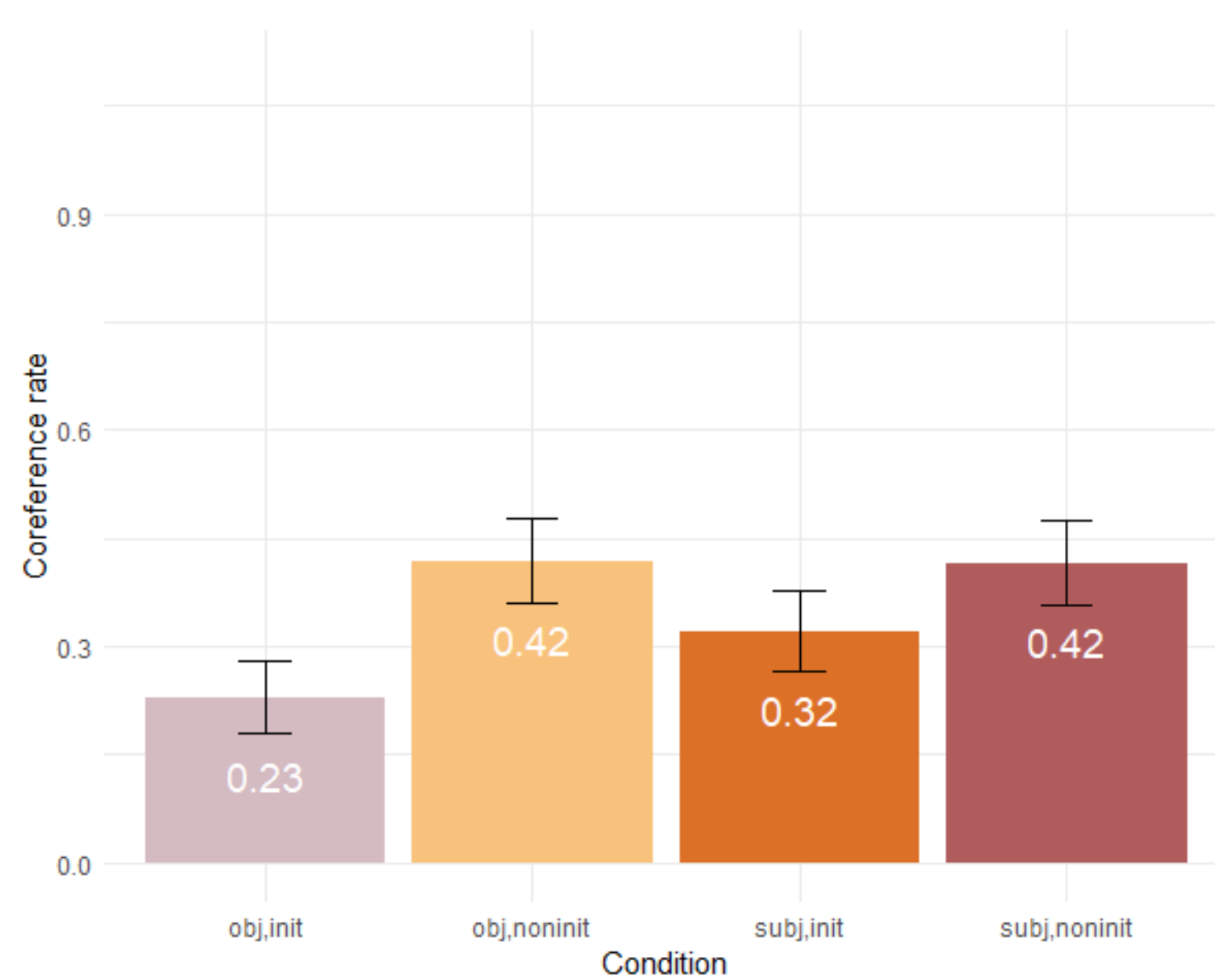


Figure 1. Proportion of 'yes' in task about embedded referent (*Ute*).

- significant: PHRASE, POSITION, PHRASE x POSITION
- effect of **c-command weak**, effect of **distance!**
- **subject-object contrast completely vanishes** when the pronoun is in the non-initial conjunct
- low/mediocre coreference rates due to **complexity of task** or **gradience and multitude of factors?**



Figure 2. Link to handout on experiments for wh-movement.

Exp. 2: Experiment 1, simplified

- 24 targets, 32 pseudofillers (see 2), 12 fillers; 150 participants
- modification: context sentence, **one task**

(4) a. Object, initial conj, embedded referent

Ich habe Helen gefragt, welchen Witz über Ute [sie __ irritierend] und [Mats __ amüsant fand.]

'I asked Helen which joke about Ute she found irritating and Mats found amusing.'

Ute found a joke irritating. yes no

b. Subject, initial conj, embedded referent

Ich habe Helen gefragt, welcher Witz über Ute [__ sie irritiert] und [__ Mats amüsiert hat.]

'I asked Helen which joke about Ute irritated her and amused Mats.'

A joke irritated Ute. yes no

Results:

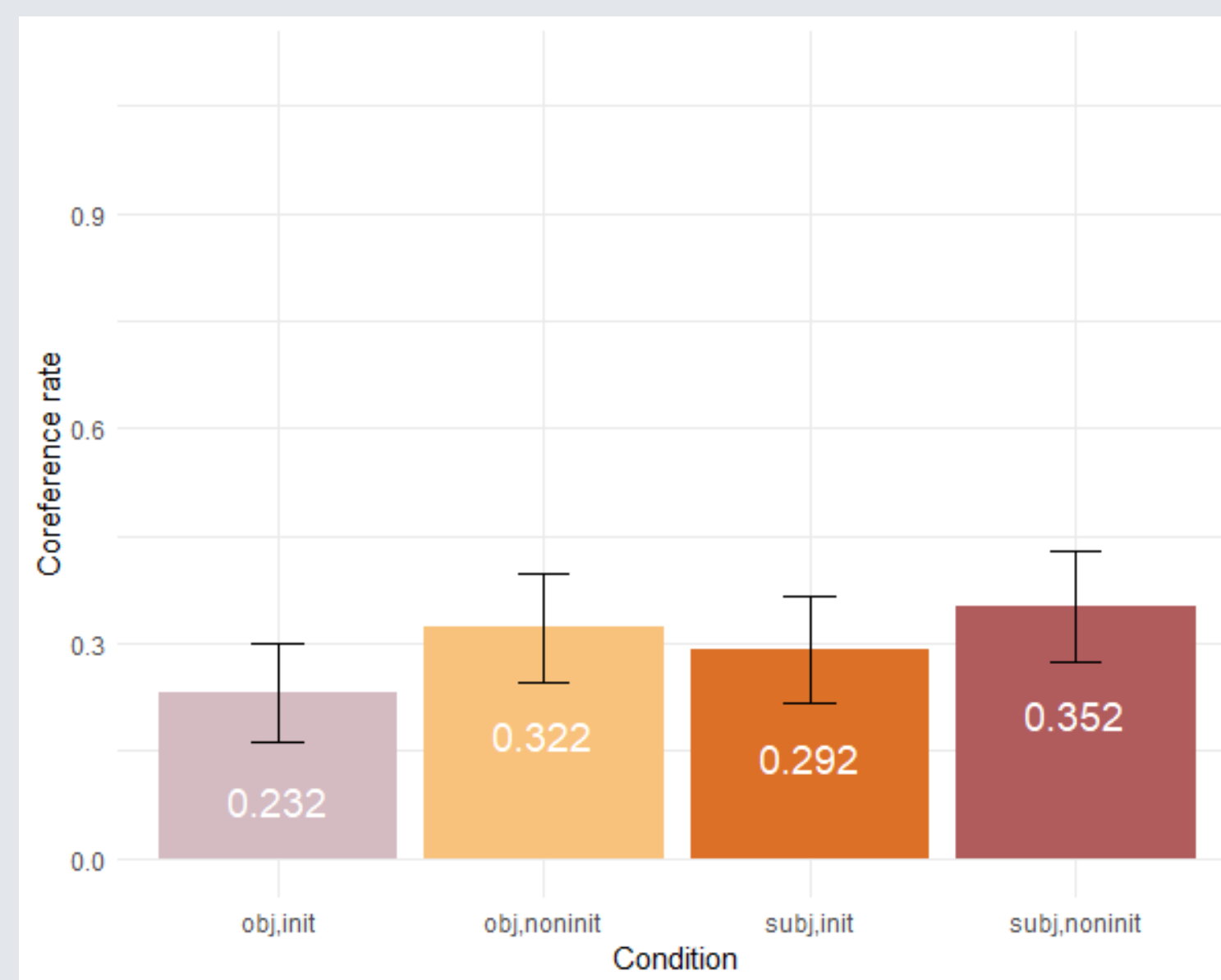


Figure 3. Proportion of 'yes' in conditions on embedded referent (*Ute*).

- significant: PHRASE, POSITION
- pattern corresponds to first experiment!
- even **lower coreference rates** due to unsatisfactory answer space?
- is the **matrix referent** too distracting?

Conclusion

- differences across experiments demonstrate importance of **non-syntactic factors and experimental design**
- **asymmetry in ATB holds regardless of c-command** → not due to a principle C violation
- role of c-command limited, **linear order matters!**
- **high by-item variability** (cf. Temme & Verhoeven 2017, Gor 2020, Varaschin et al. 2023)

Exp. 3: Stockwell et al. (2022), simplified

- 24 targets, 32 pseudofillers, 12 fillers, 60 participants
- modification: **no matrix ref.**, forced-choice task

(5) a. Object, initial conjunct

Welchen Witz über Ute [fand sie __ irritierend] und [Mats __ amüsant?]

'Which joke about Ute did she find irritating and Mats amusing?'

What is this about?

- Ute found a joke irritating. Someone else found a joke irritating.

b. Subject, initial conjunct

Welcher Witz über Ute [hat __ sie irritiert] und [__ Mats amüsiert?]

'Which joke about Ute irritated her and amused Max?'

What is this about?

- A joke irritated Ute. A joke irritated someone else.

Results:

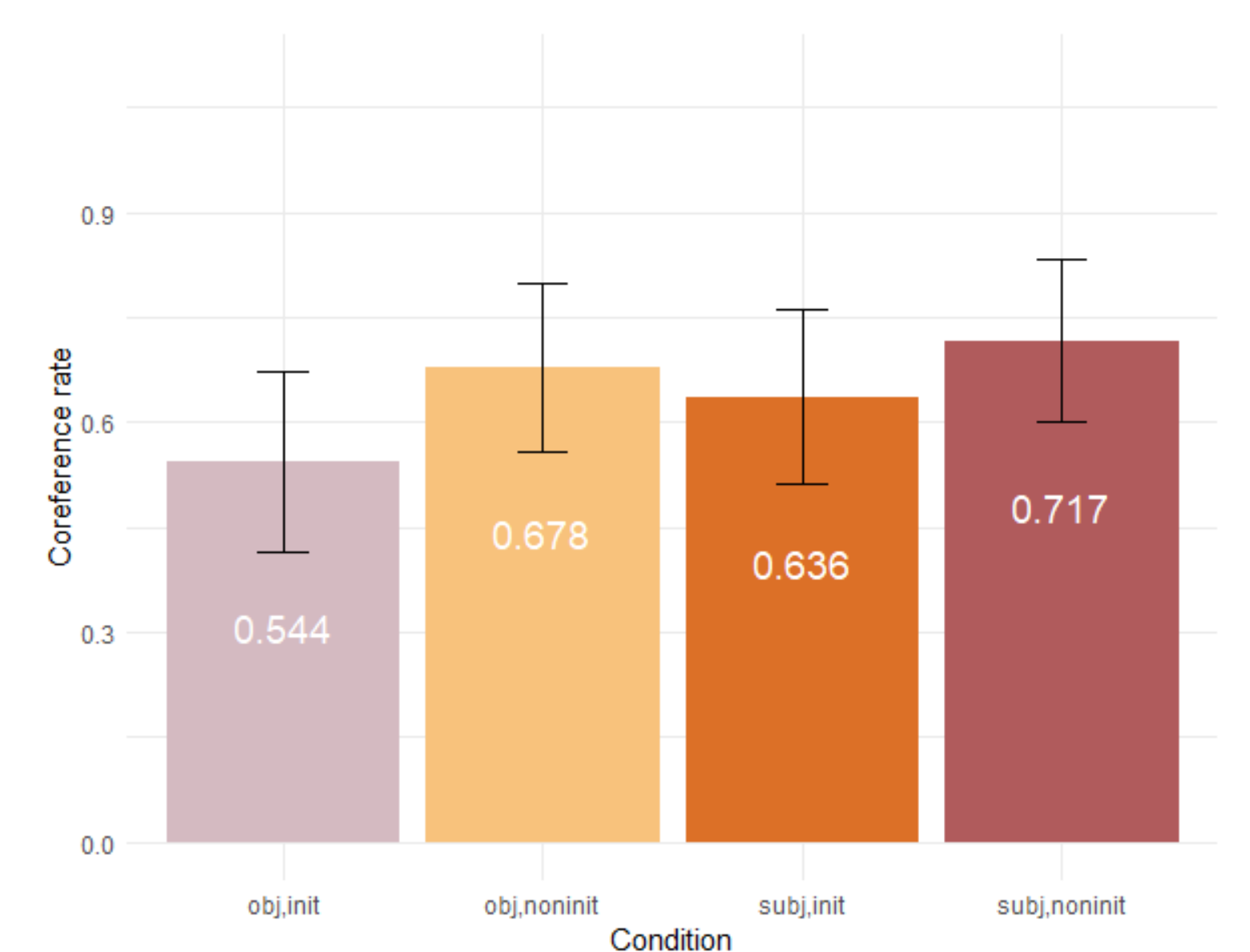


Figure 4. Proportion of embedded referent responses (*Ute*).

- significant: PHRASE (note: fewer participants, lower statistical power)
- pattern remains unchanged
- **drastic increase** in willingness to accommodate the coreferent reading!
- there nevertheless remains a **contrast between the two conjuncts in the absence of a violation**
- **effect of distance:** the further away the pronoun from the referent, the more do people prefer coreference