Processing COMP-trace violations in German
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The facts

- German LD subject questions are less acceptable than LD object questions, likely caused by a COMP-trace violation.

  [Welch-er Schriftsteller]$_i$ denkst du, dass t$_i$ den Verleger geschätzt hat?
  Which-NOM author think you that the.ACC publisher appreciated has
  'Which author do you think (*that) respected the publisher?'

  [Welch-en Schriftsteller]$_i$ denkst du, dass der Verleger t$_i$ geschätzt hat?
  Which-ACC author think you that the.NOM publisher appreciated has
  'Which author do you think (that) the publisher respected?'

- Difference in acceptability reduces when the wh-phrase or embedded DP is case-ambiguous (Kiziak 2010).
- German differs from English, where COMP-trace violations are categorically rejected.
- **What causes this difference between German and English? What role do local case-ambiguities play?**

Hypotheses

A. German doesn't have COMP-trace violations, subject/object asymmetry is purely parsing-related, due to a matrix clause agreement clash (Haider 2007).

B. German does have COMP-trace violations, but these violations are harder to detect (Featherston 2005, Kiziak 2010).
   - German word order doesn't differentiate between subject and object readings, case marking is crucial.
   - Case marking is often ambiguous, leading to local ambiguities.
   - Local ambiguities may lead to global ambiguities under the assumption of 'good enough processing' (Ferreira & Patson 2007).

Research questions:

1. Do parsing problems occur in the main clause (Hypothesis A) or in the embedded clause (Hypothesis B)?
2. Do readers misinterpret LD subject as LD object questions and vice versa (Hypothesis B)?
3. Do local case ambiguities cause misinterpretations (Hypothesis B)?

Method

- Self-paced reading followed by comprehension task
- Factors:
  1. Ambiguity: No Ambiguity (NoAmb), MatrixAmbiguity (MatrAmb) and Embedded ambiguity (EmbAmb).
  2. Argument: Subject vs. object.

Design

- 8 items per condition, divided over 2 lists
- 48 filler items
- 30 native speakers of German (23 female, mean age 22 years)
- Segments presented non-cumulatively in the centre of the screen.

Segment	1	2	3	4	5	6	7	8
Stimulus	Which X	think	you	that	the Y	VERBed	has	?

- Each question was followed by two statements corresponding to a subject or an object reading from which participants had to choose.

Example of materials

Question (EmbAmb subject)

Welch-er Schriftsteller denkst du, dass die Verleger-in geschätzt hat?
Which-NOM author think you that the.? publisher-FEM appreciated has?
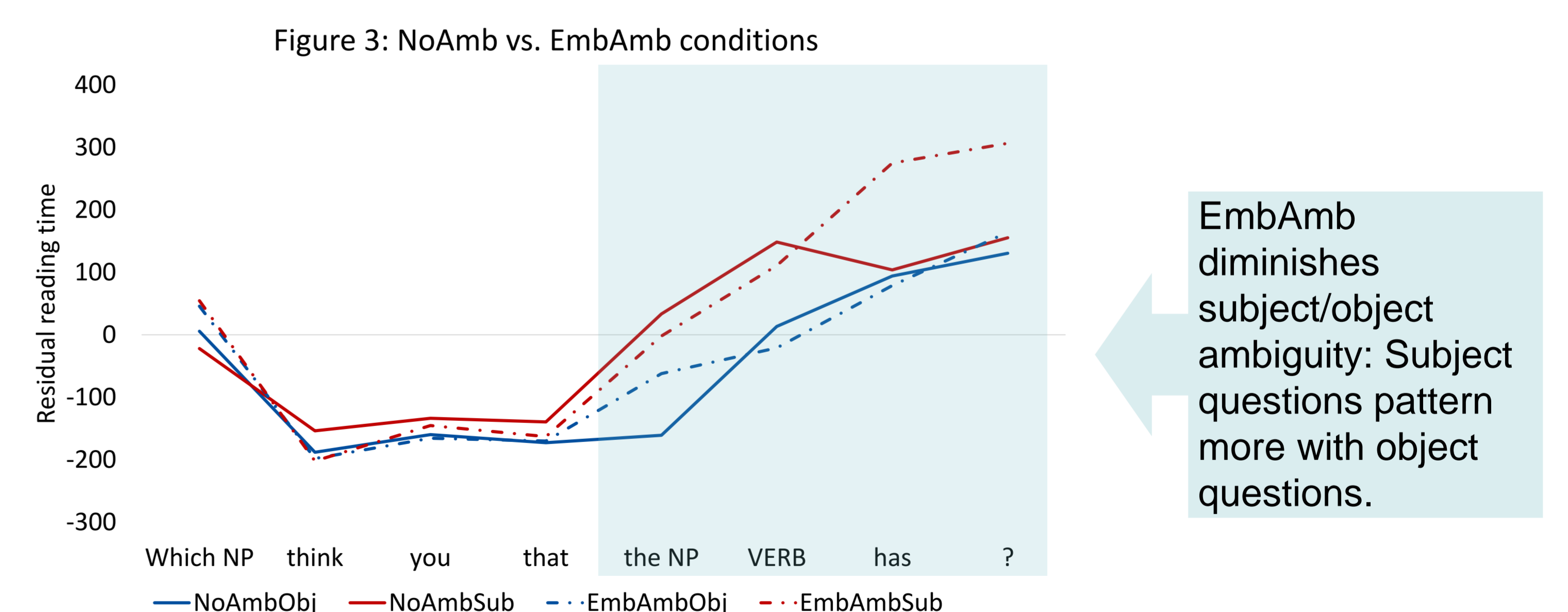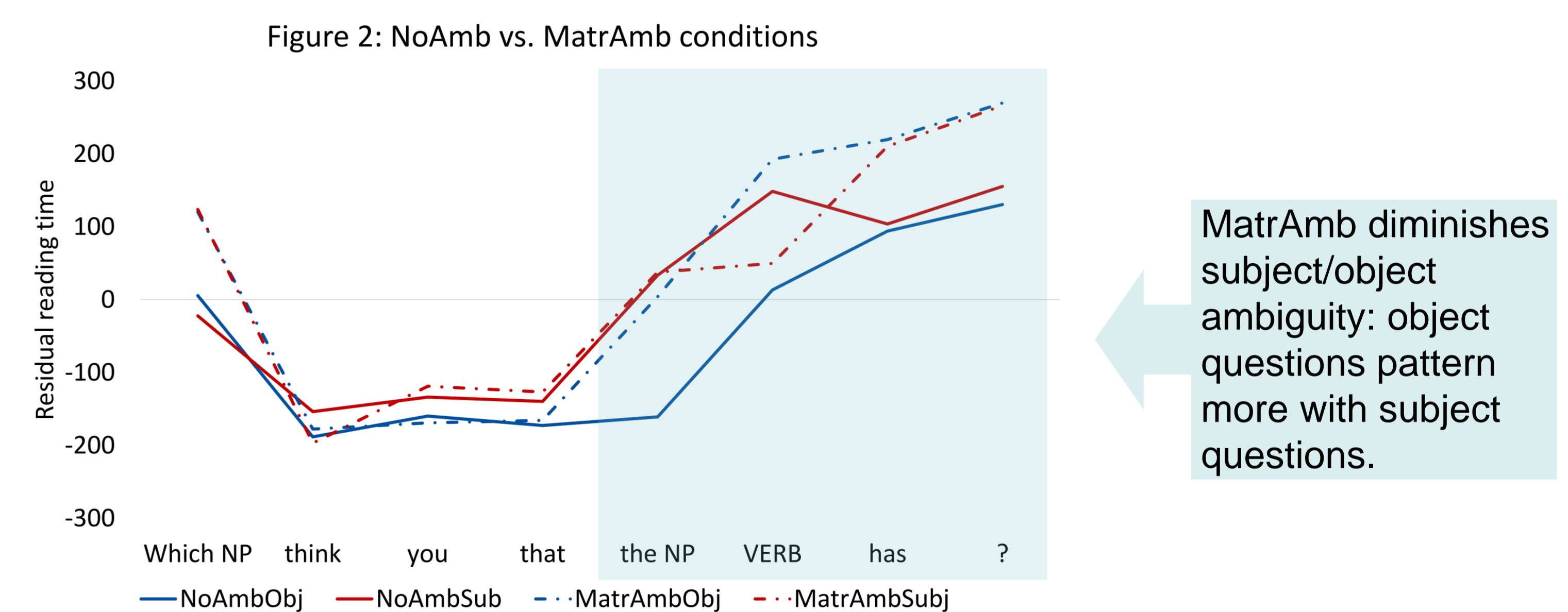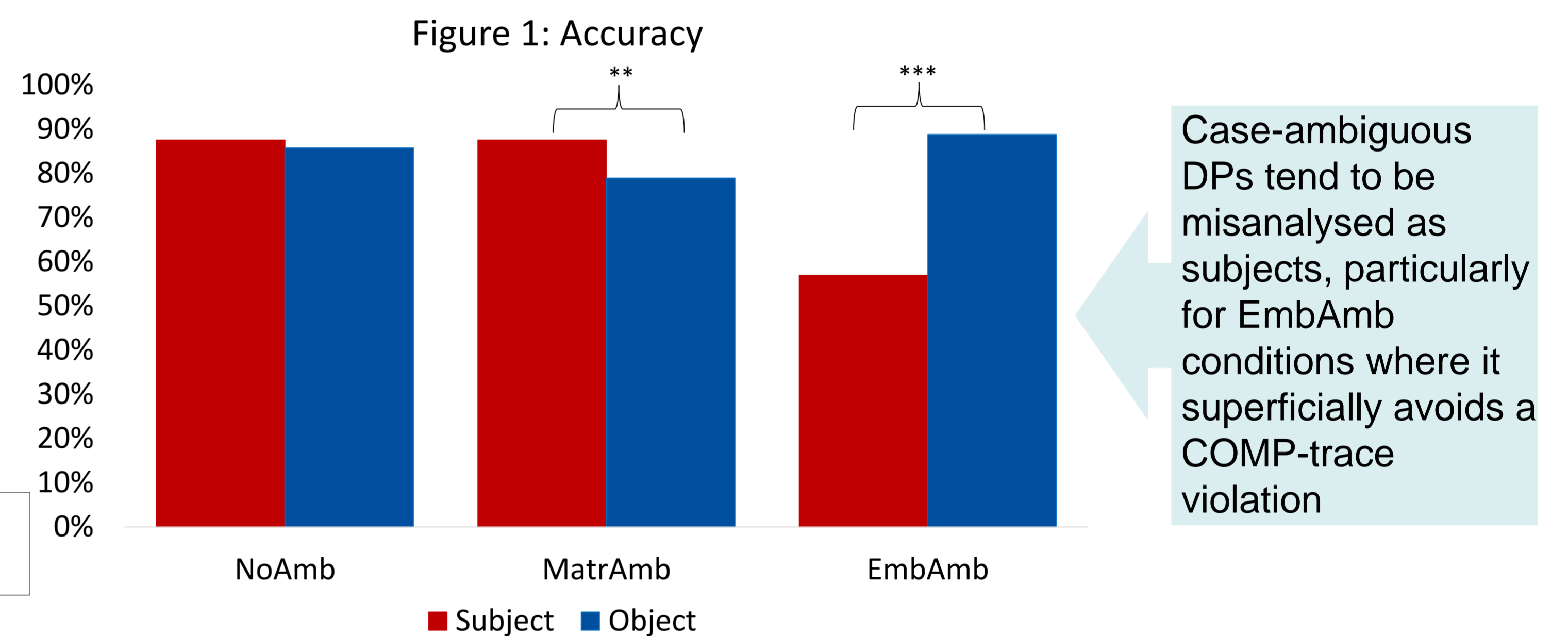'Which author do you think respected the publisher?'

Comprehension statement

(A) Ich denke, dass der britische Schriftsteller die Verlegerin geschätzt hat   Correct
   'I think that the British author appreciated the publisher'
(B) Ich denke, dass die Verlegerin den britischen Schriftsteller geschätzt hat   Incorrect
   'I think that the publisher appreciated the British author'

Table 1: Examples of conditions

Condition	Example
NoAmb Sub/Obj	Welch-er/welch-en Schriftsteller denkst du, dass den/der Verleger geschätzt hat? Which-NOM/wich-ACC author think you that the.ACC/the.NOM publisher appreciated has 'Which author do you think appreciated the publisher/the publisher appreciated?'
MatrAmb Sub/Obj	Welche Schriftsteller-in denkst du, dass den/der Verleger geschätzt hat? Which.? author-FEM think you that the.ACC the.NOM publisher appreciated has 'Which author do you think appreciated the publisher/the publisher appreciated?'
EmbAmb Sub/Obj	Welch-er/welch-en Schriftsteller denkst du, dass die Verleger-in geschätzt hat? Which-NOM/wich-ACC author think you that the.? Publisher-FEM appreciated has 'Which author do you think appreciated the publisher/the publisher appreciated?'

Results

Figure 1: Accuracy

Case-ambiguous DPs tend to be misanalysed as subjects, particularly for EmbAmb conditions where it superficially avoids a COMP-trace violation

Figure 2: NoAmb vs. MatrAmb conditions

MatrAmb diminishes subject/object ambiguity: object questions pattern more with subject questions.

Figure 3: NoAmb vs. EmbAmb conditions

EmbAmb diminishes subject/object ambiguity: Subject questions pattern more with object questions.

Conclusions

- Parsing problems located in the embedded clause, not in the main clause: contra Hypothesis A and **in favor of Hypothesis B.**
- Case-ambiguous DPs are frequently interpreted as subjects, leading to global misinterpretations, effectively **diminishing** the subject/object asymmetry and thus the strength of **the COMP-trace effect.**
- Good enough processing can partly explain why COMP-trace violations are less severe in German.

References: ■ FEATHERSTON, S. (2005). *That*-trace in German. *Lingua*, 115, 1277-1302. ■ FERREIRA, F., & PATSON, N. (2007). The 'good enough' approach to language comprehension. *Language and Linguistics Compass*, 1, 71-83. ■ Haider, H. (2007). As a matter of facts – comments on Featherston's sticks and carrots. Theoretical Linguistics, 33, 381–394. ■ Kiziak, T. (2010). Extraction Asymmetries: Experimental Evidence from German. Amsterdam & Philadelphia: John Benjamins.