

## Syntactic and prosodic cues for prominent clauses

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Syntactic subordination appears to influence the prominence status of subjects: in configurations with a main clause and a subordinate clause, cf. (1), the subject of the second clause is less frequently pronominalized than when the second clause is also a main clause, cf. (2) (e.g. Miltsataki 2011). However, this effect may not be due to syntactic subordination per se, but rather be the result of the relative prominence of the propositions, for which syntactic subordination is but one cue. We present original data showing that both syntactic and prosodic cues indicate the level of integration or subordination of the second clause and thus affect the accessibility of its subject.

Our experiment explores the interaction of syntactic and prosodic cues in a 2x3 design. Participants interpreted an ambiguous pronoun after hearing an audio recording of a German mini-discourse containing the proper names of two subject referents of the same gender. The discourse always consisted of a main clause followed either by a subordinate clause introduced by the causal connective *weil* and with verb-final word order (1), or by a main clause introduced with the causal connective *denn* and with main-clause (V2) word order (2). In addition, the strength of the prosodic boundary between the two clauses was manipulated in three conditions: (i): without a clear boundary pitch movement and a pause of only 30 ms (no/weak boundary:  $\emptyset$ ); or with a pause of 250 ms and (ii) a boundary rise or (iii) a boundary fall (strong high/low boundary: H%/L%). The complex sentence was followed by a third clause with an ambiguous pronoun as the subject of a nonce verb. Participants were then asked which of the two subject referents the pronoun referred to (forced-choice: e.g., *Wer daupte?* [*Who dauped?*]).

- (1) [main-sub] Nadja hat vegane Burger gekauft  $\begin{cases} \emptyset \\ H\% \\ L\% \end{cases}$  weil Sabine kein Fleisch isst. Sie daupte.  
Nadja has vegan burgers bought because Sabine no meat eats. She *dauped*.
- (2) [2-main] Nadja hat vegane Burger gekauft  $\begin{cases} \emptyset \\ H\% \\ L\% \end{cases}$  denn Sabine isst kein Fleisch. Sie daupte.  
because Sabine eats no meat. She *dauped*.

We analyze the proportion of pronouns resolved to the subject of the first clause (e.g., “Nadja” in (1)-(2)). We expect to find two main effects. First, we predict a main effect of the syntactic manipulation: more pronouns resolved to the the first referent in the *weil*-condition than in the *denn*-condition. Second, we expect a main effect of the prosodic manipulation, with contrasts between all three conditions. We predict that with no or only a very weak boundary (1- $\emptyset$ , 2- $\emptyset$ ), reference of the ambiguous pronoun to the first subject is higher than with a strong boundary (1-H%/L%, 2-H%/L%), because a strong boundary should increase the likelihood of an interpretation of the second clause not as integrated, but as independent and thus more prominent. In addition, we predict that resolution to the first referent is higher with a high (1-H%, 2-H%) than with a low boundary (1-L%, 2-L%), because in German high boundaries signal non-finality, while low boundaries signal finality (e.g. Grice & Baumann 2007). Preliminary results based on 111 participants show a clear effect of the syntactic cues, and a somewhat unexpected interaction between syntax and the high boundary condition in terms of resolution to the first referent (Figure 1).

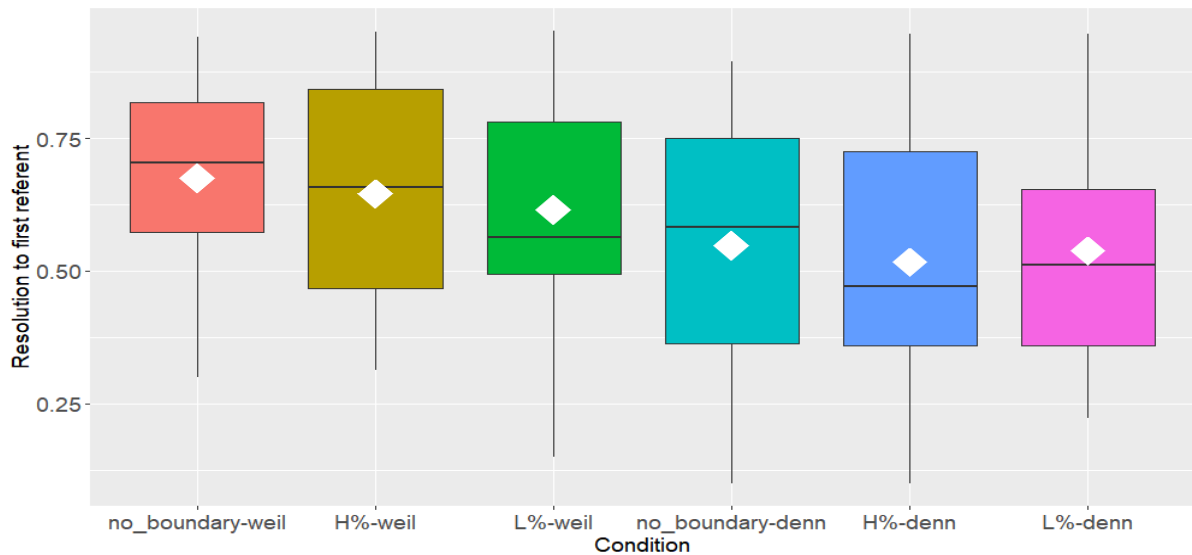


Figure 1. Boxplot showing resolution of the ambiguous pronoun to the first referent per condition, across 24 items. Based on data from 111 participants. Bars indicate medians, diamonds indicate means.

## References

Grice, Martine & Stefan Baumann. 2007. An introduction to intonation - functions and models. In Jürgen Trouvain & Ulrike Gut (eds.), *Non-native prosody: Phonetic description and teaching practice*, 25–51. Berlin, New York: Mouton de Gruyter.

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