

The impact of focus on pronoun resolution in native and non-native comprehension

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Putting an element in focus “indicates the presence of alternatives” (Krifka, 2008, p. 247), and evidence from pronoun resolution studies has also indicated that putting an element in focus makes it more accessible when pronoun resolution takes place (e.g. Foraker & McElree, 2007). Non-native speakers also appear sensitive to the increased accessibility of discourse antecedents that are in focus (Ellert, 2010). A more recent set of studies have found that pronoun resolution within sentences follows a different pattern from pronoun resolution across sentence boundaries (Colonna, Schimke, & Hemforth, 2012, 2015). They observed an *anti-focus* pattern, where being in focus tends to make an antecedent *less* accessible while an alternative antecedent becomes more accessible.

We carried out three questionnaire experiments to further test the impact of focus on within-sentence pronoun resolution in German. We tested this not only with native (L1) speakers, but also non-native (L2) speakers, whose sensitivity to information-structural cues to anaphor resolution is currently not well understood. In the first experiment, 23 native German and 25 proficient L1 Russian/L2 German speakers were asked to choose an antecedent for a pronoun presented in 21 sentences of the following type:

An der Börse wurde ein großer Einbruch erwartet.
“On the stock exchange a big slump was expected.”

Baseline

- a. Herr Schulz sagte Herrn Mayer am Montag, dass er viel verlieren könne.
“Mr Schulz said to Mr Mayer on Monday that he could lose a lot.”

NP1 cleft

- b. Es war Herr Schulz, der Herrn Mayer am Montag sagte, dass er ...
“It was Mr Schulz who said to Mr Mayer on Monday that he ...”

PP cleft

- c. Es war am Montag, als Herr Schulz Herrn Mayer sagte, dass er ...
“It was on Monday when Mr Schulz said to Mr Mayer that he...”

Here the L1s, but not L2s, showed a significant anti-focus effect, being less likely to choose NP1 when it appeared in a cleft, compared to the baseline (43% vs. 51%, $p = .04$).

A second experiment tested both clefts and focus-sensitive particles (FSPs). The baseline and NP1 conditions were retained from Experiment 1, and two FSP conditions were added:

NP1 particle

- d. Sogar Herr Schulz sagte Herrn Mayer am Montag, dass er ...
“Even Mr Schulz said to Mr Mayer on Monday that he...”

NP2 particle

- e. Herr Schulz sagte sogar Herrn Mayer am Montag, dass er...
“Mr Schulz even said to Mr Mayer on Monday that he...”

A new group of 33 L1 German speakers again showed an anti-focus effect with the cleft manipulation. As in Experiment 1, a new group of 35 L2s (L1 Russian) failed to show any sensitivity to the cleft manipulation. The L2 speakers did however show a significant increase in NP1 choices when NP1 was associated with an FSP (62% vs. 51%,

$p = .05$), indicating that focusing by means of an added particle did boost a potential antecedent's accessibility in this group.

A third experiment, consisting of Russian equivalents of the materials in Experiment 2, demonstrated that L1 Russian speakers ($n=48$) showed an anti-focus effect for *éto* clefts (43% vs. 51%, $p = .01$) but no increase in NP1 choices in the NP1 particle condition. This extends previous findings of anti-focus effects to Russian, and furthermore indicates that our L1 Russian speakers' apparent insensitivity to focus information signaled by clefting in L2 German is unlikely to be due to L1 influence.

In line with Colonna *et al.* (2012, 2015), we attribute the L1s' anti-focus effect to sensitivity to information-structural cues, in particular noting that topichood is an important cue in pronoun resolution. Consider the division of a cleft sentence into *presupposition*, *focus* and *assertion*, as proposed by Lambrecht (2001). The material in the relative clause is the *presupposition*. In our sentences, NP2 was in the relative clause. A potential antecedent that is in the (presupposed) relative clause, rather than in focus, is topic-like, because presupposition is associated with being given or discourse-old. Since pronouns resolve preferentially to topics, the antecedent in the presupposed part of the sentence becomes more accessible as a result of clefting.

The L2s' insensitivity to the cleft manipulation and their increase in NP1 choices in the NP1 particle condition suggests that, unlike L1s, they are not computing a full analysis of the sentences' information structure. Rather, they are searching for surface-level cues to prominence and as such, perceive the FSPs as highlighting devices.

Our results extend the cross-linguistic evidence for the anti-focus effect for within-sentence pronoun resolution. However, we also demonstrate that the anti-focus effect may not be present across populations, namely non-native speakers, who appear to respond differently to information-structural cues in anaphor resolution.

References

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