

Focus associators *only*, *even* and *most* in sentence processing

The focus structure of a sentence reflects the discourse context, but in the presence of various operators, such as *only*, *even* and *most*, it has an effect on the truth-conditions or the presuppositions of the sentence. Stolterfoht et al. (2007) and Carlson (2013) showed that *only* facilitates the processing of focus structures during silent reading. When (1) is read without preceding context, the first conjunct receives a wide focus interpretation (marked as F1), and when the processor encounters the ellipsis remnant (F2), it must revise the focus structure of the first conjunct from wide to matching narrow focus (F3). The presence of *only* in (2) requires narrow focus on its associate (F1), which is congruous with the ellipsis remnant. Revision of the focus structure in (1) vs. (2) was associated with an ERP signature in the Stolterfoht et al. study on German, and with increased reading times in Carlson’s self-paced reading study on English.

- (1) [Am Dienstag hat der Direktor [den Schüler]_{F3} getadelt]_{F1}, und nicht [den Lehrer]_{F2}.
On Tuesday has the principal.Nom the pupil.Acc criticized and not the teacher.Acc
- (2) Am Dienstag hat der Direktor nur [den Schüler]_{F1} getadelt, und nicht [den Lehrer]_{F2}.
On Tuesday has the principal.Nom only the pupil.Acc criticized and not the teacher.Acc

Since ‘*only x . . . and not y*’ is frequent in discourse, the presence of *only* could create an expectation for an explicit mention of excluded alternatives, and this bias alone could account for the facilitation in (2). In **self-paced reading experiments** on Polish we showed that **the processing of replacive ellipsis** (‘*and not . . .*’) **is facilitated in the presence of the three associators: *only*, *even*, *most***, which indicates that it is indeed the focus association mechanism that explains the facilitation in (2) (Tomaszewicz and Pancheva (2016)). The use of Polish allowed us for a direct comparison between *only*, *even* and *most*, because (i) like in German replacive ellipsis is unambiguous due to Accusative case marking, and therefore any differences in ellipsis resolution can be attributed to the processing of focus structure alone; (ii) with *most* the focus on ‘sculptors’ yields a superlative reading that is unavailable in English or German (in Pancheva and Tomaszewicz (2012) and Tomaszewicz (2015) we argue that this reading arises via focus association).

We found that in Polish *only*, *even* and *most* create an expectation for narrow focus on the object, but the facilitatory effects occur already on the conjunct ‘*and not*’ with *only* and *even*, and on the ellipsis remnant with *most*. This difference likely reflects the difference between **two types of focus association: obligatory and optional** as identified in the formal semantic research on focus. Obligatory focus association is taken to be encoded in the lexical semantics of focus sensitive expressions (*only*, *even*), whereas optional/free association is a result of the contextual setting of the domain variable of an operator like *most* (Beaver and Clark (2009)). While prenominal *only* and *even* have one syntactic associate (3), *most* is free to associate either with the adverbial or the subject in English (4a-b), or with the object in Polish (5).

- (3) a. John invited *only/even* [sculptors]_F for coffee.
b. *John invited *only/even* sculptors [for coffee]_F.
- (4) a. John invited the *most* sculptors [for coffee]_F.
Reading: John invited more sculptors for coffee than for any other relevant occasion.
b. [John]_F invited the *most* sculptors for coffee.
Reading: John invited more sculptors for coffee than for any other relevant individual did.
- (5) John zaprosił *najwięcej* [rzeźbiarzy]_F na kawę.
John invited *most* sculptors for coffee
Reading: John invited more sculptors for coffee than any other group of people that he invited.

During incremental processing prenominal *only* and *even* create a precise expectation for the location of focus, but *most* allows association with either the object or the adverbial in Polish, which is compatible with our results. Currently, we are extending these findings to *meisten* in German, which like English *most* does not allow association with the object, to show that optional associators facilitate the processing of focus structures that are compatible with the semantics resulting from focus association (and that it is not the case that the mere presence of a prenominal modifier increases the salience of the contrast in the replacive ellipsis).

References

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