

Ambiguity resolution in Stripping with focus sensitive operators

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In the type of ellipsis known as Stripping, the remnant can appear along side a focus sensitive operator (FSO) such as *not* or *only*, e.g. (1-3). Lappin (1996) observed that examples similar to (3) yield two distinct interpretations, illustrated in (3a) and (3b). The results of two disambiguation experiments suggest that both the *high* and *low* interpretations are possible across examples like (1-3). Further, with the FSO *not*, the rate of high responses was sensitive to the choice of conjunction (*and* vs. *but*) and the information structure of the antecedent.

- (1) a. James said the woman called Mary, {and/but} not Bill.
b. James didn't say the woman called Bill. (High negation interpretation)
c. James said the woman didn't call Bill. (Low negation interpretation)
- (2) a. James said the woman called Mary, {and/but} only Mary.
b. The only person James said the woman called was Mary. (High only interpretation)
c. James said the only person the woman called was Mary. (Low only interpretation)
- (3) a. James met the woman who called Mary, and not Bill.
b. James didn't meet the woman who called Bill. (High negation interpretation)
c. James met the woman who didn't call Bill. (Low negation interpretation)

In Experiment 1, participants (N=58) listened to 24 sentences with Stripping continuations, across 8 conditions (1-2). We manipulated the information structure of the antecedent by placing an accented emphatic auxiliary *DID* either before the matrix verb or the embedded verb (4a-4b). We also varied whether the Stripping continuation was introduced by *and* or *but* and whether the FSO was *not* or *only*. All sentences were produced with a strong Intonational Phrase boundary before the remnant, in order to discourage interpretations with simple NP conjunction, e.g. *Mary and not Bill*, and pitch accents on the intended antecedent, *Mary*, the FSO and the remnant. They chose between paraphrases of the meaning of the Stripping continuation, either the high FSO interpretation as in (1b/2b) or the low negation interpretation in (1c/2c).

- (4) a. ...James DID say the woman called Mary
b. ...James said the woman DID call Mary

Overall, participants selected the high interpretation in 23% of the responses, and so, although there was a general low bias, both high and low responses are possible in FSO Stripping. We found main effects of accent position ($\beta:0.42\pm0.14$; $p<0.001$), with high *DID* yielding more high responses, and of conjunction type, ($\beta:0.59\pm0.28$; $p<0.07$), with *but* yielding more high responses than *and*. FSO operator type interacted with accent position ($\beta:0.59\pm0.28$; $p<0.04$) and, marginally, with conjunction type ($\beta:0.52\pm0.28$; $p<0.07$). The effects of both accent position and conjunction type were not significant for the *only* operator conditions ($p\geq.11$), while they both were for the *not* conditions (*Accent position* $\beta:0.76\pm0.21$; $p<0.001$; *Conjunction type* $\beta:0.87\pm0.21$; $p<0.001$), with the main effects of high *DID* and *but* yielding more high responses driven by the *not* conditions. In the *only* conditions, both accent position and conjunction type yielded numerical trends in the same direction as in the *not* conditions, and so we suspect task difficulty (*high* and *low* responses are more complicated in the *only* conditions than the *not* conditions) may have obscured the results. In summary, both high and low interpretations were possible for both *not* and *only* FSO Stripping continuations and with the *not* FSO, prosody in the antecedent and conjunction type have clear effects on high interpretation rates.

Experiment 2 examined whether the ambiguity that *not* Stripping exhibited in Experiment 1 would also be present when the correlate was located within a syntactic island. The conjunction

was always *and*, and we manipulated the information structure of the antecedent, as in Experiment 1, and also whether the antecedent contained a non-island, complement clause, (1), or a subject relative clause island, (3). Participants (N=43) chose between paraphrases of the meaning of an auditorily presented *not* Stripping continuation, either the high negation interpretation as in (1b/3b) or the low negation interpretation in (1c/3c).

As in Experiment 1, participants again exhibited a general bias towards low negation interpretations (23-38% high negation interpretations). There was no reliable difference in response rates between the complement clause and relative clause conditions ($p > 0.14$). However, there was a significant main effect of the position of the focused emphatic auxiliary: when the focused auxiliary appeared in the matrix clause, high negation interpretations (1b/3b) increased ($p < 0.001$). This effect did not interact with clause type ($p > 0.69$): a high focused auxiliary drew more high negation interpretations in both complement and relative clause conditions.

Experiments 1 and 2 both found that both the high and low interpretations of the FSOs *only* and *not* were possible, generalizing the claims of Lappin 1996. The reliable effect of the location of focus in the antecedent on interpretation of a *not* Stripping continuation is similar to the focus attraction effect observed in a range of ambiguous attachment constructions (Schafer et al. 1996, Frazier & Clifton 2005, Carlson & Tyler 2018, Lee & Watson 2005), and for ellipsis remnants (e.g., Carlson 2001, Carlson et al. 2009). These results therefore extend the empirical domain which theories of focus attraction should attempt to explain.

This ambiguity suggests that the FSOs cannot be exclusively adjoined to the lexical remnants (Reinhart 1991, Depiante 2000) or exclusively merged high, above the ellipsis site (Merchant 2003, Jones 2004). Either analysis would predict only either the high or low interpretation to be available, rather than the ambiguity we observed. Instead, we model the ambiguity of these FSO Stripping constructions by assuming that the ellipsis site is populated with syntactic structure, and, crucially, that the FSOs can be located within either the matrix (5a) or embedded clauses (5b), yielding the high and low interpretations, respectively, following the insight of Hankamer & Sag (1976).

Further, we take the availability of the high negation interpretations in the island conditions to be evidence against structural analyses of island-insensitive ellipsis in which the ellipsis site contains just the island itself or a reduced *it*-cleft clause (Abels 2011, Barros et al. 2014), as neither of these non-isomorphic resolutions of the ellipsis site contain the relevant material to produce the high negation interpretation. Instead, it appears that, if the ellipsis site contains silent syntactic structure, that structure must be isomorphic to the antecedent (Merchant 2001, Potter 2017, Yoshida et al. 2019), thereby permitting the observed ambiguity between high and low negation interpretations.

- (5) a. ... and James did not meet the woman who called Bill
b. ... and James met the woman who did not call Bill

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