The acceptability of extractions from subjects depends on the discourse status of the subject

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In order to explain the unacceptability of certain long-distance dependencies – termed syntactic *islands* by Ross (1967) – syntacticians proposed constraints which are purely syntactic and thus not dependent on the meaning of the construction (e.g., Chomsky 1977, 2006; Schütze et al., 2015). Here we will focus on the problem of extracting out of subjects, the so-called subject-island constraint. In contrast, Erteschik-Shir (1973), Goldberg (2006) among others proposed that the possibility of a long-distance dependency depends on the **discourse status of the extracted element** in the construction. In line with a discourse-based perspective, Abeillé et al. (2020) propose the *focus-background conflict constraint*, such that a focused element should not be part of a backgrounded constituent. In a wh-question, the extracted element is a *focus* (corresponding to new information), but the subject position is usually backgrounded, with the result that long-distance extractions of parts of subjects are usually not acceptable Abeillé et al. (2020) provide a theoretical analysis as well as empirical data showing that the same constraints do not hold for relative clauses (2).

Here we test an important prediction of discourse-based proposals: that extraction from subjects in wh-questions can be improved if the subject position is marked as a focus in some way. To test this prediction, we provide a context clause and we used the focus markers "even" or "only" to contrast with the context, as in (3). Discourse-based theories like the focus-background conflict constraint and Goldberg's *Backgrounded constituents are islands* (BCI) predict that extraction from non-backgrounded subjects should be better than extractions from backgrounded subjects, and that any such effect should be larger than for corresponding extractions from objects which are in a default focus position. Traditional syntax theories predict no such interaction between focus-context and extraction position: such theories predict a main effect of extraction from subjects being worse than extraction from objects, independent of the discourse and focus markers.

Results from two English acceptability studies (MTurk participants; n=30 in each) support the discourse theories' predictions. In E1, where the materials were as in (1) and (3), with contexts supporting subject- vs object-extractions (slightly different contexts for the two positions), there was an interaction between extraction site (subject, object) and focus (focus, no-focus) (beta = -.49; t = -4.05; p < .001), such that there was a substantial difference between extraction from subjects and objects in null contexts, but no such difference in supportive contexts, thus providing evidence for the FBC (see top half of Figure 1). We also included a baseline of yes-no questions, without extraction (the bottom half of each figure). There we see a main effect of focus contexts, such that the sentences with the long supportive contexts are rated worse (probably simply because they are longer sentences, with unusual focus markers "even" or "only"). But critically we don't see the same benefit for focus in subject position, thus resulting a 3-way interaction (beta = .90; t = 3.73 p < .001), as predicted by discourse theories.

In E2, we used the same contexts across conditions, and we also marked the extracted location in all-capital letters, a standard way to mark a stressed location (4). Results are shown in Figure 2: as in E1, there was an interaction between extraction site and focus (beta = -.33; t = -3.00; p = .002) and there was also a 3-way interaction among extraction site, focus, and question-type (wh-question, yes-no-question) (beta = 1.29; t = 5.80 p < .001).

Overall, these results provide strong support for the claim that context can change the acceptability of extractions out of so-called "island" positions, such that when we focus a position that is typically backgrounded, extraction is possible. These results support discourse approaches – such as Goldberg's Backgrounded constituents are islands (BCI) account or Abeillé et al.'s

focus-background conflict constraint – over traditional syntax accounts.

Abeillé A., Hemforth B., Winckel E., Gibson T., 2020. Extraction out of subjects : differences in acceptability depend on the discourse function of the construction. *Cognition*.
Erteshick-Shir, N. 1973. *On the nature of island constraints*. PhD dissertation, MIT.
Goldberg A. 2006. *Constructions at work*, Oxford University Press.

(1) a. wh-extraction from subject:
[Which apartment] did [the price of__] surprise the young couple?
b. wh-extraction from object:
[Which apartment] did the young couple dislike [the price of__]?
(2) a. PP extraction from subject:
The realtor showed an apartment, of which [the price__] surprised the young couple.
b. PP extraction from object:
The realtor showed an apartment, of which the young couple disliked [the price__].
 (3) E1 contexts, plus focus particle "even" or "only"
a. wh-extraction from subject:
I know that some apartments surprised the young couple for their size and condition, but which apartment did even [the price of __] surprise the young couple?
b. wh-extraction from object:
I know that the young couple disliked some apartments for their size and condition, but which apartment did the young couple dislike even [the price of __]?
(4) E2 contexts, plus focus particle "even" or "only"
a. wh-extraction from subject:
I know that some apartments surprised the young couple for their size and condition, but which apartment did even THE PRICE OF surprise the young couple?
b. wh-extraction from object:
I know that some apartments surprised the young couple for their size and condition, but which apartment did the young couple dislike even THE PRICE OF?
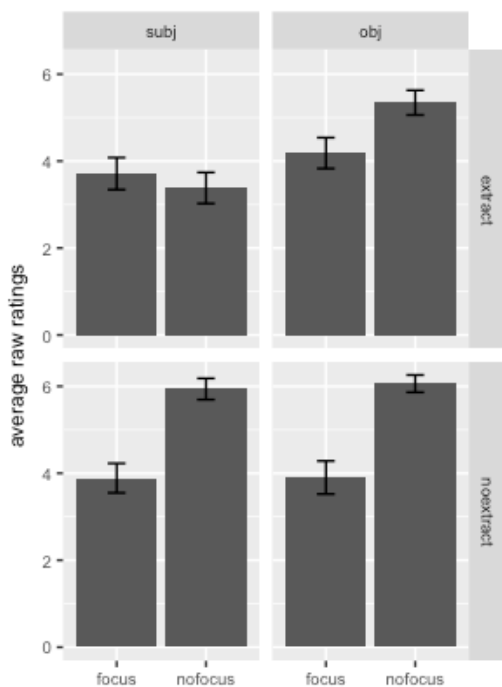

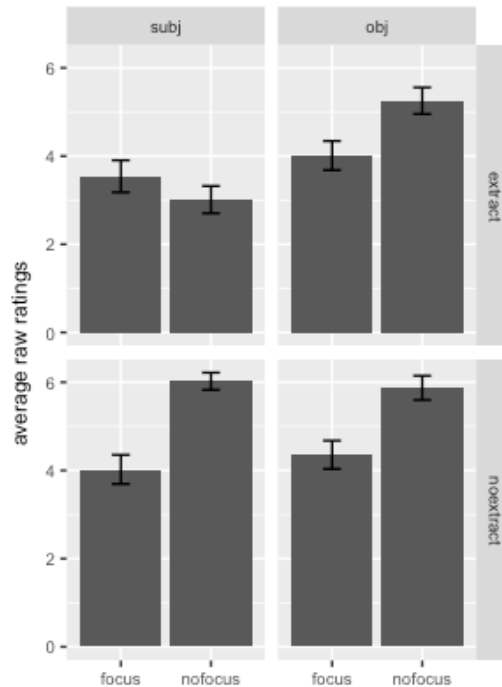Figure 1: Results from E1.   Figure 2: Results from E2.

In both experiments, we see an interaction between extraction site (subject-object) and context (focus, no-focus): top row in each; and we see a 3-way interaction when comparing these effects with non-extracted controls (the bottom row in each).