

The Discourse Functions of Constructions Predict Island Status: Two measures of backgroundedness, 10 base constructions, 3 long-distance dependencies

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To express a message, multiple constructions typically need to be combined, and this requires their functions be reconcilable. We report a large-scale study on “syntactic island” effects: 120 base stimuli sentences comprised of 10 constructions are separately combined with each of 3 long-distance dependency constructions (LDDs). $N = 680$. We test the claim that constraints on islands arise because it is infelicitous for a speaker to treat a constituent as both foregrounded/prominent/“at-issue” (as ensured by a LDD) and backgrounded (Abeillé et al., 2020; Deane, 1991; Erteschik-Shir 1979; Goldberg, 2006; 2013; Kuno, 1972, 1987; Liu et al., 2022; Polinsky, 1998; Takami, 1989; Van Valin, 1998).

Degree of backgroundedness was measured in two ways: via a negation task (Ambridge & Goldberg, 2006) and via a new Discourse task. The negation task probes how presupposed or taken-for-granted the content in each base stimuli was. The Discourse task probes how directly information is conveyed in the base stimuli. Preregistered ordinal models are used to predict Likert-scale acceptability ratings. Fixed effect predictors included backgroundedness-measure scores and *sentence_type* (base vs LDD). Random effects included intercepts & slopes for items (LDD or not) and intercepts subjects (between-subjects design) and construction.

Results confirm that acceptability judgments on all 3 long-distance dependency constructions are unacceptable to the extent that they “extract” an argument from a backgrounded construction, as operationalized by negation task (Figure 1) or the Discourse task (Figure 2). Acceptability ratings on LDDs (shades of red) vs. base sentences (in blue). Results are also analyzed for each construction, by subtracting mean acceptability ratings for each when combined with each LDD from mean acceptability ratings on each base construction. Despite only 10 data points, the cross-construction comparisons are significant as well (Figure 3) for each measure of backgroundedness (only wh-questions shown). Finally, acceptability ratings on Qs, “discourse-linked” Q, and relative clauses all correlate highly ($.80 < r < .85$) supporting the claim that these LDDs each foreground an element in their domain.

Each of 4 surveys used to collect acceptability ratings contained 120 stimuli, quasi-randomly assigned to one of 4 lists. Each participant judged a single list. In order to avoid potential satiation effects which dull participant judgments after repeated exposure to the same type of stimulus (Chaves & Dery, 2019), no participant witnessed more than 4 instances of any of the 10 target constructions. In order to avoid fatigue effects, no participant was asked to rate more than 45 target sentences. In order to minimize explicit comparisons, no participant saw any items that were highly similar semantically: i.e., the two sentences of a given response-pair in the Discourse task were assigned to distinct lists. In order to avoid strategic responding, each participant saw a single type of stimuli: base sentences, wh-Qs, RCs, or D-Qs. The order of stimuli presented in each list was randomized for each participant.

Thus, constraints on extraction from particular constructions—so-called “island constraints”—are predicted by the discourse functions of those constructions. More generally, in order to understand how constructions interact, it is critical to understand their functions.

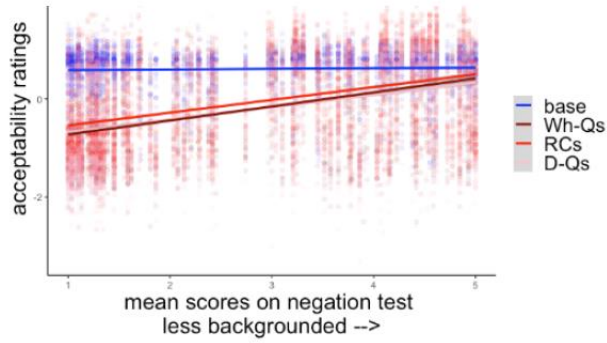


Figure 1: Judgments on the Negation task of backgroundedness (x-axis) predict acceptability rating (y-axis) on the long-distance dependency stimuli (shades of red), but not the base sentences (in blue) which are all judged to be relatively acceptable. Acceptability scores are only displayed using z-scores to address different participants' use of the scale.

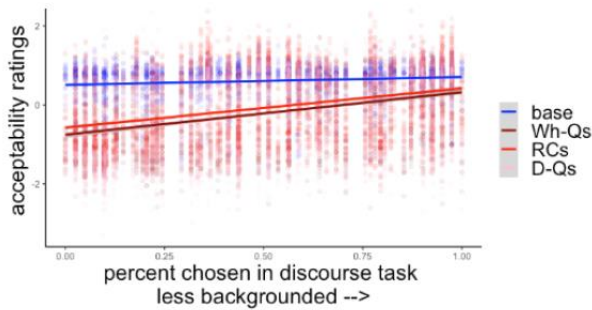


Figure 2: Proportion of choices of one construction over another in the discourse measure of backgroundedness (x-axis) predicts acceptability ratings (y-axis) on the long-distance dependency stimuli (shades of red) more than the base sentences (in blue) which are judged to be relatively acceptable. N = 600 participants across 4 acceptability surveys and the independent Discourse task. Acceptability scores are shown in z-scores to account for different participants' use of the scale.

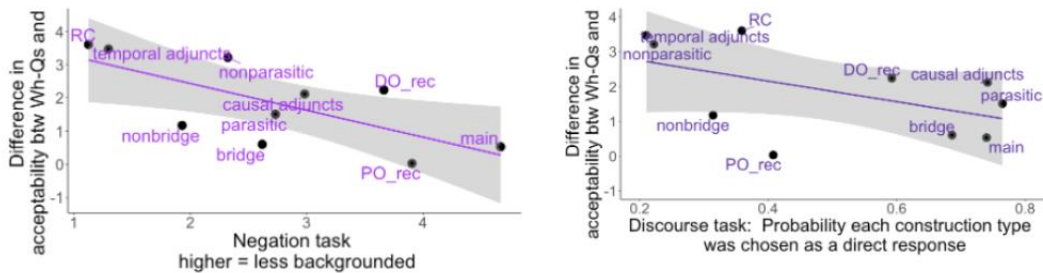


Figure 3: Correlations between the difference in acceptability between *wh*-questions and declarative stimuli (y-axes) and the responses on the Negation task ($r = -.70$; x-axis on Left) and on the Discourse task ($r = -.52$, x-axis on Right), by construction type.

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