Islands for wh-extraction and wh-in-situ are backgrounded in Singlish

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Intro: Long-distance dependencies (LDDs) like wh-questions are not allowed to cross certain constructions, labelled syntactic islands. For instance, the wh-phrase cannot be extracted out of a *whether* clause in (1b) or stay in-situ in the wh-island in (1c) in Colloquial Singapore English (Singlish). The *Backgrounded Constructions are Islands* constraint (BCI) attributes island effects to a clash in discourse properties (Goldberg, 2013; Cuneo and Goldberg, 2023). According to BCI, material within an island construction is backgrounded and wh-phrases in LDDs must be prominent, thus the penalty in acceptability of LLD across a construction is sensitive to the extent to which that construction is backgrounded. Cuneo and Goldberg (2023) recently found that the BCI constraint applies to wh-extraction out of Complex NP and adjunct islands. The effects of BCI in wh-in-situ questions have not been tested. In two experiments which investigate the BCI constraint with Singlish wh-movement and wh-in-situ, we replicate Cuneo and Goldberg (2023)'s findings for Complex NP islands and adjunct islands, extend the BCI account to wh-islands, and provide novel evidence that the island effects of wh-in-situ can be accounted for by the BCI constraint.

Experiments: We tested acceptability of Complex NP island (CNPC), adjunct island, and wh-island. Each island type had a 2×3 design with two factors STRUCTURE (Main, Island) and BASEORLDD (Base, Move, Situ), shown in (2) to (4). 47 native Singlish speakers rated their acceptability on a 7-point Likert scale. In a separate experiment, backgroundedness of the island constructions was tested using the negation task in (5) (Namboodiripad et al., 2022; Ambridge and Goldberg, 2008). We presented a negated version of the BASE sentences and asked if the proposition denoted by the island construction was negated or not. The more backgrounded a construction is, the less affected it is by the negation in the main clause. 43 participants completed the negation task using a 5-point scale.

Results: For each island type, the six conditions were arranged into two 2×2 comparisons (wh-movement: Base vs Move | Main vs. Island, wh-in-situ: Base vs Situ | Main vs. Island). Raw responses and mean negation scores are plotted in Figure 1. For wh-movement, backgroundedness predicts the acceptability of Move conditions more than Base conditions. All three island types observe a significant interaction of Backgroundedness (negation mean) and BaseorLDD (CNPC: β=0.73, z=6.01, p<0.001; Adjunct: β=1.15, z=7.89, p<0.001; Wh-island: β=3.07, z=3.66, p<0.001). For the wh-in-situ comparisons, backgroundedness also predicts the acceptability of Situ conditions more than Base conditions for CNPC and wh-islands, and to a smaller extent in adjunct islands. The interaction of Backgroundedness and BaseorLDD is significant for all three island types as well (CNPC: β=0.85, z=6.75, p<0.001; Adjunct: β=0.33, z=2.33, p=0.02; Wh-island: β=3.42, z=3.92, p<0.001).

Implications: Like Cuneo and Goldberg (2023), our experiments show that backgroundedness, operationalised here as the degree that a construction is opaque to negation, inversely correlates with acceptability ratings when a constituent within the island is queried, in line with the BCI constraint. We extended the scope of BCI to wh-movement out of CNPC, adjunct islands, and wh-islands in Singlish, as well as wh-in situ for the three island types. While the correlation between backgroundedness and acceptability of island violations poses a challenge to syntactic/semantic approaches to island effects, our experiments also reveal a puzzle. Note that the red Move and Situ lines for CNPC and wh-islands in Figure 1 are parallel, suggesting that backgroundedness similarly affects wh-extraction and wh-in-situ for CNPC and wh-islands. This is not the case for adjunct islands, in which backgroundedness clearly shows an inverse correlation with acceptability for wh-extraction but not wh-in-situ. In other words, acceptability of wh-in-situ questions with adjunct islands is correlated less with backgroundedness of the construction, compared to wh-movement, contrary to the prediction.

(1) a. The director want to know whether Sean organise the event.　　(base sentence)
　　 b. *What the director want to know whether Sean organise ah?　　(wh-movement)
　　 c. *The director want to know whether Sean organise what ah?　　(wh-in situ)
　　　 '*What did the director want to know whether Sean organised?'
　　　 (Singlish allows optional tense morphology and *ah* is a question marker.)

(2) a. The girl who like history recommend a biography.　　Main | Base
　　 b. What the girl who like history recommend ah?　　Main | Move
　　 c. The girl who like history recommend what ah?　　Main | Situ
　　 d. The girl who recommend a biography like history.　　CNPC | Base
　　 e. What the girl who recommend like history ah?　　CNPC | Move
　　 f. The girl who recommend what like history ah?　　CNPC | Situ

(3) a. Wei Han analyse data after replying the email.　　Main | Base
　　 b. What Wei Han analyse after replying the email ah?　　Main | Move
　　 c. Wei Han analyse what after replying the email ah?　　Main | Situ
　　 d. Wei Han reply the email before analysing data.　　Adjunct | Base
　　 e. What Wei Han reply the email before analysing ah?　　Adjunct | Move
　　 f. Wei Han reply the email before analysing what ah?　　Adjunct | Situ

(4) a. The tutor say that Shao Min solve the issue.　　Main | Base
　　 b. What the tutor say that Shao Min solve ah?　　Main | Move
　　 c. The tutor say that Shao Min solve what ah?　　Main | Situ
　　 d. The tutor want to know whether Shao Min solve the issue.　　Wh | Base
　　 e. What the tutor want to know whether Shao Min solve ah?　　Wh | Move
　　 f. The tutor want to know whether Shao Min solve what ah?　　Wh | Situ

(5) sample negation task for wh-island (Singlish *didn't* may be further contracted to *din*.)
　　 a. The tutor din say that Shao Min solve the issue.　　(Base | main)
　　　 'Did Shao Min solve the issue?'
　　　 Options: No, Probably Not, Can't Tell, Probably, Yes
　　 b. The tutor din want to know whether Shao Min solve the issue.　　(Base | whether)
　　　 'Did Shao Min solve the issue?'
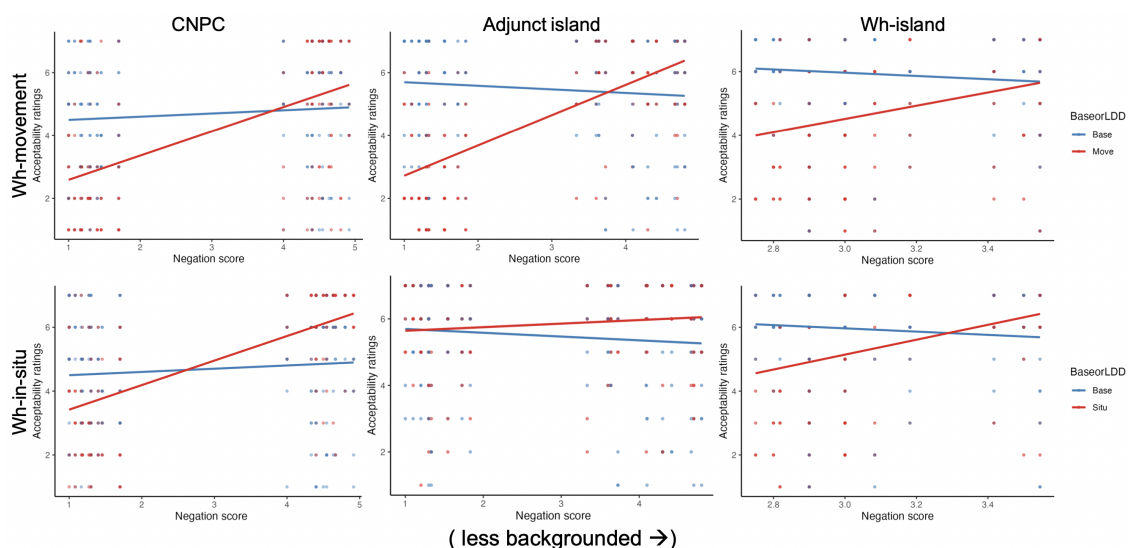　　　 Options: No, Probably Not, Can't Tell, Probably, Yes

Figure 1

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