

Investigating island constraints in Vietnamese

Investigations of island constraints on WH-questions have occupied theoretical and psycholinguistic research for decades [1]. The majority of this research, especially in experimental work, has focused on languages in which the WH-phrase is dislocated from its position of interpretation (so-called WH-movement languages), despite the fact that many of the world's language (e.g. Mandarin, Japanese, Vietnamese) do not displace WH-words in the process of question formation. We present evidence from Vietnamese, a WH-in-situ language, that even these constructions are sensitive to (some) syntactic islands (Experiment 1). However, a followup experiment which investigated the processing of these structures found no meaningful difference between islands and non-islands (Experiment 2).

Experiment 1: Following [2], employed the logic of [3] to test for the presence of island effects in Vietnamese using a combined self-paced reading and acceptability judgement study. Target questions manipulated whether (i) a potential island structure was present in the sentence (ii) the critical WH-word was in a matrix, or embedded position. Critically, in island-structure sentences, embedded WH-words were in positions that constitute an island violation in WH-movement languages. Given that the strength of some island environments varies cross-linguistically [4, 5], we tested five different island environments, evenly distributed across 40 target questions. For an example stimulus, see examples (1).¹

Participants read these sentences in a phrase-by-phrase self-paced reading fashion, and then provided a "sentence naturalness" judgement on a 1-6 scale. Descriptive statistics ($n=69$ native Vietnamese speakers) are given in Figure 1. Ordinal mixed effects regression showed a significant *length* \times *structure* interaction for complex noun phrases ($\hat{\beta} = -0.24$; $p < 0.05$) and subject island ($\hat{\beta} = -0.17$, $p < 0.05$) structures. There was also a significant interaction observed for whether islands, but we suspect this was due to an unintended ambiguity in our materials which may have led participants to treat these sentences as declarative sentences. We did not find evidence that either adjuncts, or relative clauses showed a super-additive penalty for structure and dependency length.

These results suggest that complex noun phrases, and subjects, at least, may constitute islands for Vietnamese, while adjuncts and relative clauses may not. Curiously, this parallels findings for Norwegian [4, 5], despite the difference in question-formation strategies. This also extends existing work on Mandarin [2] in suggesting that even argument WH-in-situ questions are subject to island constraints, contra claims in the theoretical literature [6].

Experiment 2: While experiment 1 addresses the descriptive question of whether some structures pattern like islands in off-line acceptability, it does not speak to the ways in which speakers deal with these structures on-line. To better address this question, Experiment 2 adapts the paradigm in [7] to investigate the transparency of islands to retrospective processing. In brief, the Vietnamese question particle "the" requires a preceding WH element to be licensed. [7] show that this requirement may sometimes be spuriously satisfied by a WH "like" element (e.g. "ai-do", "someone"), even though this is globally ungrammatical. Building on this, we tested for the same effect across three different structure types: no-island, subject islands, and adjuncts (which may not be islands in Vietnamese).

Participants read sentences like (2) in a phrase-by-phrase lexical maze task, and then provided a judgment on a 1-6 scale. Descriptive statistics for reading times acceptability ratings ($n=95$ native Vietnamese speakers) are given in Figure 2 and Table 1 respectively. In general, we replicate [] in showing that sentences with a WH-like element ("ai-do") lead to faster reading times at the question particle "the" ($\hat{\beta} = 47$, $t = 2.83$), as well as slightly increased acceptability ratings ($\hat{\beta} = -0.17$, $p < 0.05$). However, the only interaction with structure we observed was a *stronger* effect for subject islands in reading times, relative to the other structures tested ($\hat{\beta} = 51$, $t = 2.1$).

Conclusions: Across two experiments we show that (i) even WH-in-situ languages display some island-like effects for at least some structures (ii) these structures may not be treated like islands in the processing of retrieving a licenser for a question particle.

¹We could not include example stimuli for all five island environments tested due to reasons of space.

- (1) a. Ai nói là người-luật-sư đã bỏ-quên giấy-tờ ở văn-phòng?
Who say that lawyer past forget paper at office
Who said that the lawyer forgot the papers at the office? [short, –island]
- b. Người-thân-chủ nói là người-luật-sư đã bỏ-quên cái-gì ở văn-phòng?
Client say that lawyer past forget what at office
What did the client say that the lawyer forgot at the office? [long, –island]
- c. Ai thấy bức khi người-luật-sư bỏ-quên giấy-tờ ở văn-phòng?
Who feel angry when lawyer forget paper at office
Who felt angry when the lawyer forgot the papers at the office? [short, +island]
- d. Người-thân-chủ thấy bức khi người-luật-sư bỏ-quên cái-gì ở văn-phòng?
Client feel angry when lawyer forget what at office
What did the client feel angry when the lawyer forgot at the office? [long, +island]
- (2) a. Duy nói là Thắng/ai-đó đang trở nên rất nổi trên mạng-xã-hội thế?
Duy said that Thang/someone that is become very famous on social-media Q?
Duy says that Thang/someone is becoming very famous on social media? [No Island]
- b. Duy nói là video trên TikTok của Thắng/ai-đó đang trở nên ... thế?
Duy said that video on TikTok of Thang/someone that is become ... Q?
Duy says that Thang's/someone's video on Tiktop is becoming...? [Subject Island]
- c. Duy nói là nhờ Thắng/ai-đó nên Trúc đang trở nên rất nổi thế?
Duy said that thanks-to Thang/someone thus Truc that is become very famous Q?
Duy says that thanks to Thang/someone, Truc is becoming...? [Adjunct “Island”]

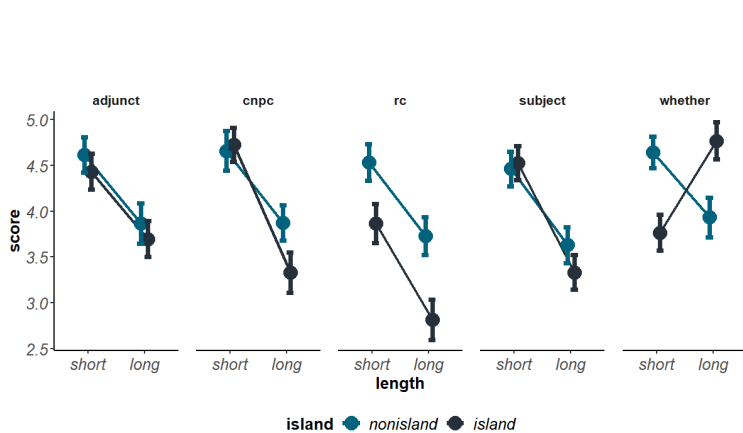


Figure 1: By-participant mean responses in Expt 1. Error bars represent SE.

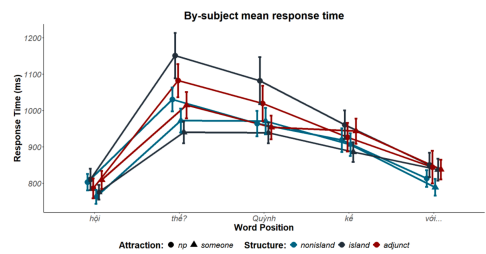


Figure 2: Caption

	Mismatch	Match
No Island	3.59 (0.15)	3.81 (0.13)
Subject	3.53 (0.15)	3.69 (0.14)
Adjunct	3.53 (0.15)	3.74 (0.13)

Table 1: By-participant mean responses in Expt 2. Error bars represent SE.

[1] Ross, J. R. (1967).
 [2] Lu, J., Thompson, C. K., & Yoshida, M. (2020). *Linguistic Inquiry*, 51(3).
 [3] Sprouse, J., Wagers, M., & Phillips, C. (2012). *Language*.
 [4] Kush, D., Lohndal, T., & Sprouse, J. (2018). *Natural language & linguistic theory*, 36.
 [5] Kush, D., Lohndal, T., & Sprouse, J. (2019). *Language*, 95(3).
 [6] Cheng, L. L.-S. (2009). *Language and Linguistics Compass*, 3(3).
 [7] Pham, L., & Kaiser, E. (2024). *HSP 2024*.