

## Adjunct islands and the finiteness effect

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Do adjunct islands exhibit the finiteness effect seen in *wh*-islands (1) and subject islands (2), in which extraction from non-finite clauses is more acceptable than from finite clauses [1, 2, 3]? There are two issues at stake: First, if adjunct islands lack the finiteness effect, as has been traditionally thought, then a unified explanation for these three islands (whether in grammar or processing terms) seems improbable [4]. Second, if finiteness in embedded clauses is the sort of small processing difficulty that accumulates with others and results in larger island effects in *wh*- and subject clauses [2, 5], then it should have this effect in adjunct clauses too. These questions are explored in a series of three experiments.

**Experiment 1:** Participants (N=189) judged acceptability of sentences with a 7-point scale. Materials were *wh*-questions involving extraction out of 5 types of adjuncts, both clausal and non-clausal. Crucially, 2 of the types were finite and non-finite temporal adjunct clauses, as in (3). Participants saw 4 tokens of each type (Latin square design, randomized order, 1:2 experimental/filler ratio). Extraction out of non-finite adjunct clauses (mean rating = 2.28) was rated significantly higher ( $p < .001$ ) than extraction out of finite adjunct clauses (mean rating = 2.01), suggesting that under careful experimental conditions, a finiteness effect emerges also for adjunct islands. The question remains, however, whether the effect might be due to a general preference for non-finite adjuncts independent of extraction. This is addressed in Experiment 2.

**Experiment 2:** Participants (N=220) used a 7-point scale to judge *wh*-questions and *yes/no* questions with finite and non-finite adjunct clauses. Participants saw 6 tokens of all 4 types, and 40 fillers (Latin square design, randomized order). Results revealed no significant effect for finiteness in *yes/no* questions (non-finite mean = 5.72, finite mean = 5.69) ( $p = 0.68$ ), but a very significant effect in the *wh*-questions (non-finite mean = 2.38, finite mean = 2.16) ( $p < 0.001$ ), suggesting that finiteness affects extraction out of adjuncts, not adjuncts in general. This opens the possibility that the effect here is driven by extraction alone, i.e. a general preference for extraction out of non-finite clauses. This is explored in Experiment 3.

**Experiment 3:** Same as Experiment 2, but with complement clauses instead of adjunct clauses (4). Results show no significant effect for finiteness in *yes/no* questions, but unlike what we saw with adjunct clauses, a slight preference for extraction out of finite (mean = 4.96) over non-finite (mean = 4.82) clauses ( $p < .01$ ).

We reach three main conclusions: First, since adjunct islands are now seen to exhibit a finiteness effect similar to that of *wh*-islands and subject islands, the possibility of a unified explanation for these three gains plausibility. Second, the view that island effects result from the accumulation of smaller processing difficulties [2, 5] receives support from the fact that finiteness appears to be one contributor to unacceptability in all three island types. Third, this view is crucially not supported by the fact that no such contribution was detected in complement clauses. Why finiteness behaves this way remains an open question at this point.

### Example sentences

- (1) a. ?What are you wondering [whether to buy \_ ] ?  
b. \*What are you wondering [whether I should buy \_ ] ?
- (2) a. ?? the niece who [being able to bake cookies for \_ ] gives me great pleasure  
b. \* the niece who [that I can bake cookies for \_ ] gives me great pleasure
- (3) a. \*Who did Bill run [after calling \_ ]? (*Judgments given are standard ones from literature.*)  
b. \*Who did Bill run [after he called \_ ]?
- (4) a. What did the teacher believe [the students to know \_ ]?  
b. What did the teacher believe [the students knew \_ ]?

**References:** [1] Ross, J. R. (1967). Constraints on Variables in Syntax. PhD Thesis. MIT. [2] Kluender, R. (2004). Are subject islands subject to a processing account? WCCFL 23, 475–499. [3] Phillips, C. (2006). The Real-time Status of Island Phenomena. *Language*, 82, 795–823. [4] Stepanov, A. (2007). The End of CED? Minimalism and Extraction Domains, *Syntax*, 10, 80–126. [5] Hofmeister P, Sag I. Cognitive constraints and island effects. *Language*. 2010;86:366–415.