

Acceptability of extraction out of English adjunct clauses: the role of topicalization

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Introduction

Constraints on non-local dependencies have been crucial for linguistic theory, and 3 types of approaches aim to explain their (un)acceptability:

- **Universalist syntactic approach:** “Island” constraints on non-local dependencies are syntactic in nature and generalize across languages and across constructions (e.g., Huang 1982, Chomsky 1986).

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- **Processing approach:** Processing factors such as low frequency and high working memory load (longer-distance dependencies between filler and gap are harder to construct, ending up exceeding people’s limited capacity) play a role (Klunder 1991, Hofmeister and Sag 2010, Liu et al. 2022)

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- **Processing approach:** Processing factors such as low frequency and high working memory load (longer-distance dependencies between filler and gap are harder to construct, ending up exceeding people’s limited capacity) play a role (Klunder 1991, Hofmeister and Sag 2010, Liu et al. 2022)
- **Discourse approach:** Based on “Backgrounded Constructions are Island” proposed by Goldberg (2006, 2013), Abeillé et al (2020) propose that the discourse function of the construction plays a role: the infelicity to extract an element out of a backgrounded constituent is worse when the extracted element is focalized (as in wh-question or it-clefts). If most subjects and most adjunct clauses are backgrounded, we expect a discourse status clash when extracting with a focalizing construction.

Previous Studies

Sprouse et al.(2016) found if-adjunct penalty with English wh-questions (without context) but not with relative clauses.

Gibson et al. (2021) replicated this contrast without context, as in (1)&(2), but there is no penalty when a supportive context was provided in wh-questions:

- (1). John booked a concert that he would worry [if I missed__]
- (2). which concert will John worry [if I missed__] ?

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Kush et al. (2018, 2019) and Bondevik et al.(2021) found if-adjunct penalty in Norwegian wh-questions but not in topicalizations.

- Kush et al.(2018): if-adjuncts, wh-questions, without context
- Kush et al.(2019): if-adjuncts, topicalizations, with &without context
- Bondevik et al.(2021): if&when&because-adjuncts, topicalizations, with context

Two acceptability judgment Experiments on topicalization were conducted on Ibexform.

- Exp.1 Topicalization with that-clauses & if-clauses after same predicates;
- Exp.2 Topicalization with if-clause in initial/final position

Participants were presented with sentence pairs & asked to rate the second sentence on a 1-7 Likert scale, and answer a corresponding yes/no comprehension question. Only participants with accuracy rates above 80% were kept.

Exp.1 Topicalization with that-clauses & if-clauses after same predicates:

- 16 Experimental items, 80 filler items
- 46 US English natives recruited by Prolific
- A 2x2 design: **Extraction** (\pm extract); **Clause type**(that-clause vs. if-clause)
- Testing Items:

a).+extract & that:

Paul cares about my music training. This concert,he worried [that I missed_].

b).+extract & if:

Paul cares about my music training. This concert,he would worry [if I missed_].

c).-extract & that:

Paul cares about my music training. He worried that I missed this concert.

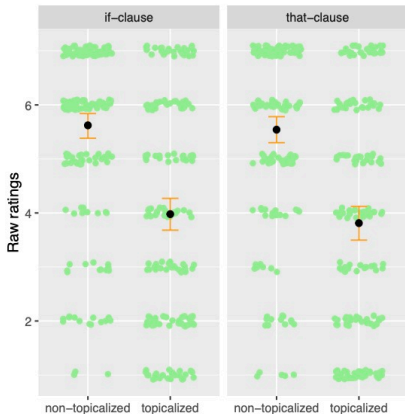
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 - d).-extract & if:
Paul cares about my music training. He would worry if I missed this concert.
- Prediction:
 - Syntactic approach: extraction out of if-clauses should be rated lower.
 - Discourse approach: if-clauses are assumed to be more backgrounded than that-clauses, but topicalizations are not focalizing constructions (the topicalized NP is a contrastive topic) (Prince 1981), so no penalty is expected.

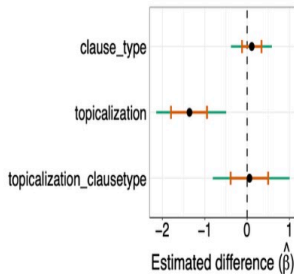
Exp.1 Results



Exp.1

Probability of interaction: $p(\beta > 0) = .60$

Probability of topicalization effect: $p(\beta < 0) = 1.00$



- A main effect of topicalization, but no interaction (no “island” effect): Sentences with that-clauses were rated slightly lower than sentences with if-clause both with and without topicalization.
- Topicalization sentences were rated higher than some ungrammatical fillers (1.98)
- The results are compatible with discourse-based explanations

Exp.2 Topicalization with if-clause in initial/final position

- 16 experimental items, 24 filler items
- 38 US English natives recruited by Prolific
- A 2x2 design: **Extraction** (\pm extract); **Position** (if-clause final vs. if-clause initial)
- Testing Items:

a).+extract & if-initial:

Paul cares about my music training. This concert, [if I missed _], he would worry.

b).+extract & if-final:

Paul cares about my music training. This concert, he would worry [if I missed _].

c).-extract & if-initial:

Paul cares about my music training. If I missed this concert, he would worry.

d).-extract & if-final:

Paul cares about my music training. He would worry if I missed this concert.

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a).+extract & if-initial:

Paul cares about my music training. This concert, [if I missed _], he would worry.

b).+extract & if-final:

Paul cares about my music training. This concert, he would worry [if I missed _].

c).-extract & if-initial:

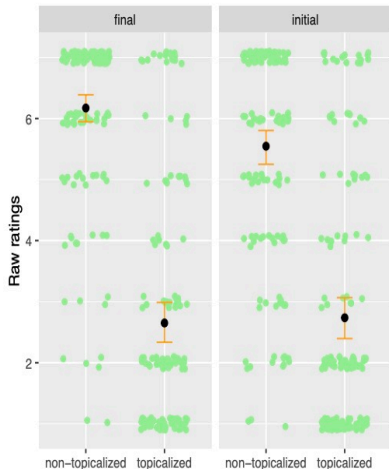
Paul cares about my music training. If I missed this concert, he would worry.

d).-extract & if-final:

Paul cares about my music training. He would worry if I missed this concert.

- **Prediction:**
 - Processing approach: the linear distance between a filler and a gap should favour extraction out of initial if-clauses.
 - Syntactic approach: higher structural distance with initial if-clauses should lower their acceptability (Haegeman 2010, 2012)
 - Discourse approach: initial clauses being more backgrounded than final clauses predicts an interaction with extraction.

Results

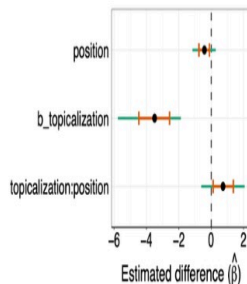


Exp. 2

Probability of interaction: $p(\beta > 0) = .98$

Probability of main effect position: $p(\beta < 0) = .994$

Probability of main effect topicalization: $p(\beta < 0) = 1.00$



A main effect of topicalization, a main effect of adjunct-position, and an interaction effect: **the extraction penalty is slightly smaller with if-initial clauses.** We suggest that linear distance plays a role here.

Just like the contrast found by Kush et al.(2018,2019) in Norwegian, we also observe the adjunct penalty in English wh-questions but not in topicalizations.

Topicalizations are more frequent in Norwegian than that in English, hence there is a lower acceptability in English.

We conclude:

- Cross-construction difference holds, as predicted by discourse theories
- Cross-linguistic differences have been overrated
- Processing factors also play a role

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Thank you!