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Introduction

It has traditionally been assumed that adjunct clauses are strong islands for extraction across languages, including in English (the Adjunct Condition, Huang, 1982). However, recent studies have claimed that extraction from adjunct clauses is possible in English given certain conditions.

Sematic coherence:

Future study conditions have been a possible reason for the different results. It has been found that some studies have reported higher coherence ratings when the adjunct clauses were not adjacent to the matrix clause, while other studies have found the opposite. This suggests that the coherence of the clauses may be influenced by the position of the adjunct clauses relative to the matrix clause.

Finiteness:

If coherence and/or finiteness are taken into account, the results of the previous studies may be explained. For example, recent studies have shown that the presence of a finiteness marker on the main verb of an extracted clause can increase the acceptability of the extracted clause. This suggests that the finiteness marker may be influencing the acceptability of the extracted clause.

The current study

The current study investigates how coherence and finiteness affect the acceptability (Exp. 1) and the real-time processing (Exp. 2) of adjunct island extraction in English.

Experiment 1 (Acceptability judgments)

Participants: 72 mono-lingual, native English speakers.

Materials: 40 sentence items bearing argument extraction in the form of question formation (Which NP) from an after-adjunct clause, manipulating Coherence and Finiteness (3), distributed across four lists with 8 distractor items.

Coherence (coherent/non-coherent):

Sentential coherence was either augmented (3a) or impeded (3b). This was done by using telic matrix verbs in the context of the coherent condition and activity verbs in the non-coherent condition (Truswell, 2011) and by using matching matrix adverbs, e.g. almost (coherent) vs. a little (non-coherent).

Finiteness (finite, non-finite):

Which verb did he almost stumble after chugging / after he chugged? (3a) or Which verb did he almost stumble after chugging / after he chugged? (3b) is the context.

Procedure:

5-point Likert scale rating task (1 = “completely unacceptable” to 7 = “completely acceptable”) presented online using Google forms.

Experiment 2 (Self-paced reading)

Participants: 60 mono-lingual, native English speakers.

Materials: 40 critical sentences partially modified from those used in Experiment 1, rotated across four presentation lists. 8 distractor items.

Procedure:

Word-by-word reading using E-Prime 3.0.

Analysis:

Linear mixed models analysis of log residualised reading times for regions RS-R10 (excluding R8).

Discussion

The absence of coherence is found already at the matrix.

Overall faster reading times for coherent adjuncts compared to non-coherent adjuncts.

A coherence effect and in coherent adjuncts a finiteness-related slowdown at regions associated with gap integration.

Coherence and an absence of finiteness facilitate processing and dependency formation in adjunct islands.

The trend between the coherency of the clauses and the finiteness factor at the wrap-up region suggests that finiteness might only affect later stages of integration in the coherent conditions (supported by the results from the pairwise comparisons).

General discussion

Findings:

Overall, coherent structures involving dependency formation into an adjunct are rated higher than non-coherent structures and are processed faster at the regions where filler-gap integration is expected to occur.

Finiteness decreases the acceptability of coherent extraction, but has no effect on non-coherent extraction.

Finiteness increases processing time at the first point of filler-gap integration (the adjunct verb). However, finiteness appears to only affect coherent structures at later stages of integration (the wrap-up region).

Later stages of integration during processing thus correspond to the offline acceptability ratings.

The Adjunct Condition:

The acceptability results are compatible with the Adjunct Condition: extraction from the adjunct clauses produced ratings that fell below the mid-point of the scale across all conditions.

Implications for the permeability of adjunct islands:

Our finding that coherence and finiteness have an impact on the acceptability of extraction from adjuncts as well as on the processing of such structures at the point of filler integration suggests that filler-gap integration need not be suspended in adjunct clauses, as has been claimed for other islands (Stowe, 1986, Trasker & Pickering, 1996).

This suggests that some degree of filler-gap integration takes place inside the adjunct islands investigated here (i.e. the extraction is judged to be of low acceptability). See Tunyanian et al. (2017) for similar observations regarding relative clause islands.

How can the permeability of adjunct islands be reconciled with the Adjunct Condition?

Our stimuli may have forced integration inside the island, due to the absence of another gap; this forced integration was facilitated in the presence of a coherence relation.

Gap assignment may be supported in the presence of a cue that suggests a tighter semantic relation (coherence) between the adjunct and the matrix clause (e.g. the telicity of the matrix verb). This is also supported by the trend coherence by finiteness interaction at the wrap-up region (Exp. 2), which suggests that some of the permeability is only visible in the coherent conditions.

References


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