

Real-Time Status of Semantic Exceptions to the Adjunct Island Constraint

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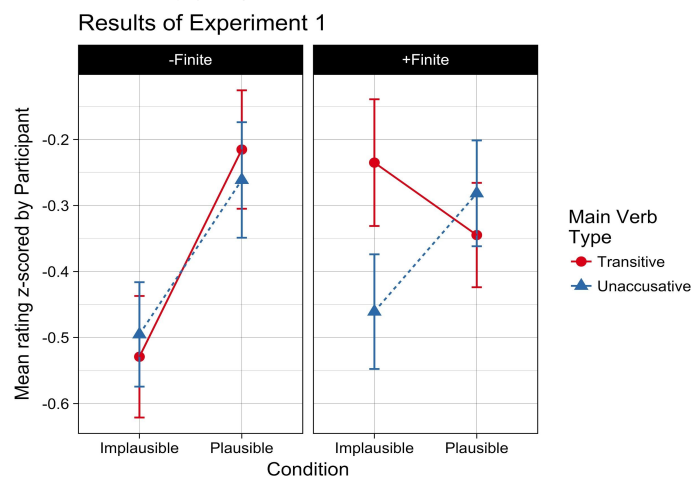
In processing filler-gap dependencies (FGDs), comprehenders actively search for gaps (Crain & Fodor 1985; Stowe 1986; Traxler & Pickering 1996). Gap search is suppressed in syntactic islands (Phillips 2006). Assuming that islands arise from constraints on linguistic representations (Ross 1967; Chomsky 1981), this suggests that fine-grained grammatical constraints are recruited in real-time comprehension to limit where gaps are postulated. In this study, we examine the processing of FGDs into adjunct clauses, which are typically islands (**Who did Dale investigate Leo [before Harry interrogated ___]?*; Cinque 1990), but have a well-circumscribed set of exceptions, determined by the semantics of the sentence (Truswell 2007).

Many theories of islands hold that adjuncts are islands (e.g., Huang 1982; Uriagereka 1999). However, extraction from non-finite adjunct clauses is permissible if the events denoted by the main and adjunct clauses can compose into a larger "macro-event" (Truswell 2007). For instance, if the main verb is an achievement denoting the end-point of a process, and the adjunct clause is a procedure that could feasibly precede the end-point, then extraction from the adjunct clause is permissible (e.g., *What did Dale arrive at the office drinking__?*). Otherwise, extraction is ungrammatical (e.g., **What did Dale work at the office drinking __?*). In two experiments, using the plausibility mismatch paradigm, we show that FGDs crossing into non-finite adjunct clauses are acceptable. Furthermore, we argue that comprehenders do not actively pursue gaps in islands, but will revise their analysis if the main and adjunct clause events are composable, and if the filler is a plausible argument of the adjunct clause.

Table 1. Materials used for Experiments 1 and 2; Experiment 2 only used the –Finite conditions.

	<u>±Plausible</u>		<u>Unacc/Trans</u>	<u>±Finite</u>
John wondered	which coffee		arrived	
		his best friend		(while she was) drinking late
	which report		worked	<u>this afternoon</u>

Figure 1. Mean acceptability judgments from Experiment 1, z-scored by participant.

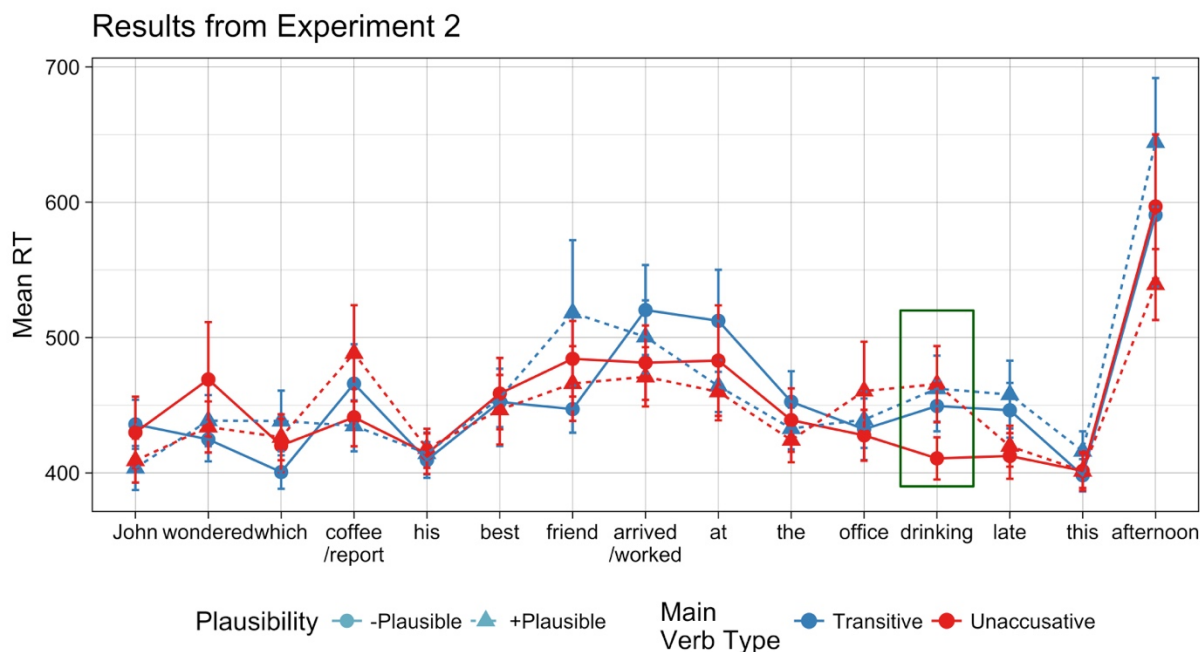


Experiment 1 was an acceptability judgment study ($N = 60$; 16 items; 24 fillers) using a 1–7 Likert scale. The target sentences contained an open FGD, and an adjunct clause with an optionally transitive verb that denotes an activity. We reasoned that a contrast in Plausibility

(±Plausibility) of the filler as an argument of the adjunct clause verb reflects the possibility of forming the FGD into the adjunct clause. We also manipulated adjunct Finiteness (±Finite), and Main Verb Type (Unaccusative/Transitive), because unaccusative achievement verbs can compose with adjunct clause verbs. Mixed effects models fit on z-scored ratings found a two-way interaction between Finiteness and Plausibility, raising ratings for the +Plausible,–Finite conditions ($\beta = 0.43$, $SE = 0.17$, $t(713) = 2.6$, $p < 0.01$). Thus, comprehenders are sensitive to plausibility mismatches for FGDs that cross into non-finite adjuncts. However, there was no effect of Main Verb Type.

Experiment 2 was a self-paced reading task ($N = 40$) with the same materials, but without the Finiteness manipulation. If comprehenders condition FGD formation on the composability of the main and adjunct clauses, then we predict a difference in the ±Plausible factors at the critical region (*drinking*) only in the Unaccusative conditions, but not the Transitive conditions. Analysis revealed no interaction effect at the critical region ($p > 0.05$). However, pairwise comparisons show slower reading times in the +Unaccusative, +Plausible condition compared to the +Unaccusative, –Plausible condition ($p = 0.05$). We take this reverse plausibility mismatch effect to indicate that initially, comprehenders do not pursue a gap in the adjunct clause, but if the semantics of the two clauses are composable and the FGD is plausible, then comprehenders will trigger a reanalysis process to construct the FGD into the adjunct clause.

Figure 2. Mean reading times from Experiment 2.



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