

## Sluicing inferred propositions

**Introduction:** Ellipsis tends to exhibit a tight correspondence between the elided material and its antecedent, but characterizing this correspondence in a precise way has proven challenging. Poppels & Kehler (2017) describe cases of VP-ellipsis in which the correspondence between ellipsis site and antecedent appears to be particularly loose. In such cases, exemplified in (1), VP-ellipsis is capable of recovering a meaning that is not directly provided by the antecedent, but rather has to be inferred.

- 1) Can I borrow your textbook? ---I wish I could ~~lend it to you~~, but I'll need it myself.

In a 2-part experiment, naive comprehenders rated the acceptability of dialogues like (1) and then paraphrased the meaning of the ellipsis clause in a free-response task. The results established (a) that participants indeed recovered interpretations that had to be inferred (~~strike-through~~ font here and below reflects the most frequent paraphrase given by experimental participants), and (b) that they rated the passages as highly acceptable when the context made those interpretations readily available.

Here we report on an analogous, exploratory investigation of sluicing. Specifically, we ask whether sluicing can recover inferred interpretations (i.e. interpretations that cannot be derived using antecedent material alone) in conducive contexts without being unacceptable.

**Methods:** Following Poppels & Kehler's (2017) design, 28 native English speakers were recruited from Amazon.com's Mechanical Turk and presented with 20 dialogues that contained sluices like those in (2-6). A subset of the passages were designed to be plausibly compatible with Rudin's (2018) proposal that syntactic identity is sensitive only to the 'eventive core' of the sluiced clause (2-3), whereas others were not (4-6). We will refer to those 20 items as the Inferred Meaning condition. Participants performed two tasks, presented in separate blocks: they first read the dialogues and rated their acceptability on a 5-point Likert scale, and then they indicated how they would interpret the sluice by paraphrasing the ellipsis site in a free-response task.

- 2) Do you mind if I put on some music? ---What kind of music ~~do you want to put on?~~
- 3) Can I borrow your textbook over the weekend? ---Why ~~do you need (to borrow) it?~~
- 4) I think the 49ers need a new quarterback. ---Agreed, but who ~~should the new quarterback be?~~
- 5) And shortly after 3 pm is when you heard the explosion? ---Yes, but I couldn't tell where ~~the explosion happened.~~
- 6) Did you not tell your friends about the game today? ---I did, but I forgot to tell them where ~~the game is.~~

Interspersed with the stimuli were 30 filler items that also contain sluices, 15 of which were designed to be acceptable, like those in (7) and (9), and 15 to be unacceptable, like (8) and (10).

- 7) Didn't Dad say he needed to repair something? ---Yes, but I forgot what ~~he needed to repair.~~
- 8) The workers loaded one of the trucks with hay. ---Did you see onto which truck ~~they loaded the hay?~~
- 9) We're donating our car to some organization. ---Have you decided which organization ~~we're donating our car to?~~
- 10) We're donating our car. ---Have you decided which organization ~~we're donating our car to?~~

The purpose of the filler items was to establish clear baselines against which the Inferred Meaning sluices could be compared. Examples (7-8) illustrate our Acceptable Regular Sluicing and Unacceptable Regular Sluicing fillers respectively; all participants saw the same 10 of each type.

Examples (9-10) illustrate paired fillers in our Acceptable No-New-Words and Unacceptable No-New-Words conditions respectively; participants saw one of the two variants for each of the 10 pairs. All fillers were modeled after examples found in the literature.

**Results:** Comprehenders’ paraphrases revealed that the sluices in the Inferred Meaning condition overwhelmingly received interpretations that went beyond the material provided by the antecedent (see examples in ~~strike-through~~ font in (2-6)), while at the same time achieving a high degree of acceptability (Figure 1). By contrast, the paraphrases associated with the upper-bound fillers (e.g., (7) and (9)) were generally reducible to the antecedent provided. As a result, paraphrases in the Inferred Meaning condition tended to contain more “New Words” (in the sense of Chung, 2006; Merchant, 2013; AnderBois, 2014) than in the filler conditions (Figure 2). Thus, it appears that in at least some cases, a meaning can be recovered via sluicing even when that meaning goes beyond the linguistic contents of the antecedent clause and would thus require “New Words” to express linguistically. Finally, Inferred Meaning sluices exhibited more variability in the way they were paraphrased than sluices with antecedent-provided interpretations. This is reflected in higher entropy rates (a measure of variability in discrete distributions; Figure 3), in line with what Poppels & Kehler (2017) found for VP-ellipsis.

**Conclusion:** As Poppels and Kehler (2017) found for VP-ellipsis, our study reveals a class of sluicing cases that are highly acceptable despite the lack of a syntactically matching antecedent and the need to resort to inference to recover the meaning of the ellipsis clause. Judgments for these cases differ markedly from what was found for a variety of cases from the literature that were verified in our study to be highly unacceptable. Further, the results of the paraphrase task reveal a lack of consensus about what the elided linguistic material is likely to have been in such cases, in strong contrast to our two baseline categories of acceptable cases.

We offer these results in a bid to expand the empirical base upon which to theorize about sluicing, rather than to provide a predictive theory ourselves. Developing such a theory will no doubt be a challenge. We are particularly struck by the results of the Unacceptable No-New-Words condition, which received very low acceptability scores despite a high level of agreement about what the interpretation would be (as revealed by the entropy scores): in these cases it was clear to participants what meaning was intended, but that did not render them acceptable. The reconciliation of these facts with the high degree of acceptability of our Inferred Meaning cases must be left for future work.

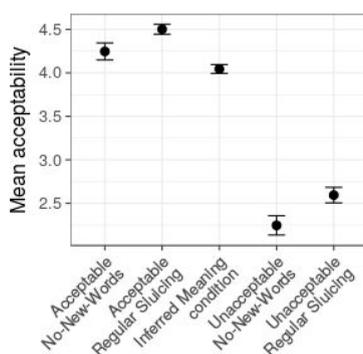


Figure 1. Acceptability by condition.

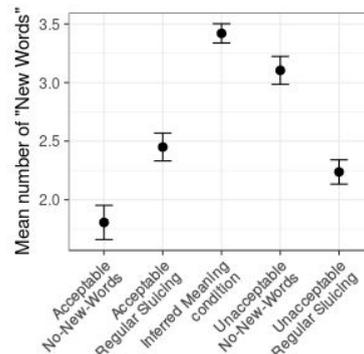


Figure 2. Number of “New Words”.

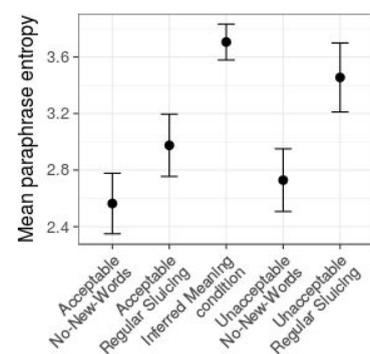


Figure 3. Variability in paraphrases.

**References:** Anderbois, 2014, *Language* 90(4). Chung, 2006, BLS 31. Merchant, 2013, *Diagnosing Syntax*. Poppels & Kehler, 2017, CLS 53. Rudin, 2018, *Linguistic Inquiry* (44)1.