

Predictability and implicit communicative content

Themed session: Incomplete utterances and the syntax/pragmatics interface

Language is inherently indeterminate — a single string often has multiple possible meanings due to lexical or structural ambiguities, vagueness, and mismatches between literal and implicated meaning. Constructions that leave part of what is meant to be communicated out of the explicit content introduce further interpretive indeterminacy; for example, ellipsis (1-b) requires comprehenders to infer the implicit content of the elided clause, and focus particles like *only* (2-b) require inferring a set of salient, implicit alternatives to the focused expression.

- (1)
 - a. Jane wrote an article for the newspaper.
 - b. Chris did, too.
 - c. Chris wrote an article for the newspaper, too.
- (2)
 - a. The library was getting rid of old VHS tapes.
 - b. Jane only took some SCIENCE DOCUMENTARIES.
 - c. Jane took some science documentaries, but not any other genre of VHS tape.

And yet, comprehenders experience far less comprehension difficulty than might be expected when interpreting such utterances in discourse: in the context of (1-a), (1-b) is easily understood as (1-c), and following (2-a), (2-b) can be understood as (2-c). The question usually asked is how the implicit material is inferred in such utterances, the answer in each case being related to the structure or content of the prior discourse (for ellipsis: Sag & Hankamer 1984; Hardt 1993; Dalrymple et al 1991; for focus alternatives/quantifier domains: Cohen 1999; Aloni 2000; Husband & Ferreira 2012; among others).

The current study instead explores the hypothesis that efficient utterance production functionally motivates such constructions, and that utterances like (1-b) and (2-b) illustrate a tradeoff between simplicity/brevity and explicit expression of communicative content. A large body of research in psycholinguistics has shown that online language comprehension relies heavily on predictive mechanisms (Otten & van Berkum 2008; Jaeger & Tily 2010; Mahowald et al. 2010). In particular, prior language experience plays an important role in shaping comprehenders' expectations about likely outcomes in incremental discourse processing (e.g. Rodhe et al 2011). Linguistic devices may then piggyback on these expectations in order to make discourse processing more efficient, reducing explicitly produced content if it is easily inferable. The resulting language processing system would trade off a pressure to simplify utterances with a pressure to be explicit with respect to the content to be conveyed. In the first case, speakers 'say more with less' (e.g. elide, rely on implicit alternatives) where implicit material is recoverable in a limited set of expected ways. In the latter, unpredictable content decreases the likelihood of reliably inferring implicit information, and speakers compensate by being more explicit.

Predictions were tested in two empirical domains: ellipsis and alternative-dependent expressions. First, increasing the predictability of content to be communicated increased the likelihood that it would be left implicit: (i) VPs that were highly predictable based on structural and thematic parallelism to prior content and likelihood of cooccurrence with prior lexical material were more likely to be elided, and (ii) increasing lexical and conceptual predictability with respect to a discourse topic and prior discourse content increased the likelihood that alternatives to focused phrases would be left implicit (rather than being listed explicitly). Secondly, comprehenders expected highly predictable content to be omitted (i.e. left to be inferred), and unpredictable content to be explicitly spelled out; explicit inclusion of highly predictable content was judged as degraded in acceptability.