

Language Tutorial: Polysemy, copredication and individuation

Peter R. Sutton

Universitat Pompeu Fabra, Barcelona

In this tutorial, we will look at polysemous expressions, namely expressions with multiple interrelated senses, and, in particular, at the interactions between polysemy, modification, and quantification (including numeral constructions). Focussing on common nouns, first we will look at polysemy in contrast to two related phenomena: lexical ambiguity and coercion. Second, we will review the impact that polysemy and copredication data have been argued to have on semantic theory, as well as some responses to these challenges. Third and finally, we will look at yet further puzzles that arise when polysemous nouns are restrictors in quantifier constructions and combined with numeral expressions. Some more details regarding each of these three topics are given below.

Polysemy, lexical ambiguity, and coercion: Nouns such as *lunch* in (1-a) are polysemous, as they have multiple interrelated senses. However, other cases of expressions that admit of equivocality include lexical ambiguity as in (1-b) and coercion as with *began a letter* in (1-c), the interpretation of which is to begin, say, reading or writing a letter (see, e.g., Pustejovsky 1995).

- (1) a. Lunch {lasted for two hours, was delicious}.
- b. The party {lasted all night, left base camp in the morning}.
- c. Alex {picked up, began (reading/writing)} a letter.

Although there may be intuitive differences between the cases in (1), as we shall see, some complications arise in distinguishing them, prompting the following question:

TO WHAT EXTENT CAN WE DISTINGUISH POLYSEMY FROM LEXICAL AMBIGUITY
AND FROM CASES OF COERCION?

Polysemy and Copredication: One feature of polysemous expressions is that they may licence copredication, namely, when multiple *prima facie* incompatible predications are made, given a single antecedent as in (2), (3-a) and (3-b). However, not all cases of copredication are felicitous as in (3-c).

- (2) Lunch lasted for two hours and was delicious. (Adapted from Asher & Pustejovsky 2006)
- (3) a. The statement in the envelope is inaccurate.
- b. The half-hour statement was inaccurate.
- c. ?The statement in the envelope lasted half an hour.

A striking upshot of these data is that, if say, lunch-eventualities and food-eaten-for-lunch are assumed to be entities of different semantic types, then it is far from clear how the semantics of a polysemous expression such as *lunch* can be given as a function in the kind of logic based upon the simply-typed λ -calculus that is ubiquitous in formal semantics. Another question we will address is therefore:

WHAT REVISIONS, IF ANY, DO WE NEED TO MAKE TO OUR SEMANTIC THEORIES
TO ACCOMMODATE THESE DATA?

Numerals and Quantification: Finally, when we combine polysemous expressions with quantifiers, certain other puzzles arise. For instance, Gotham (2014) argues that the only reading for (4) is where there are three physically distinct books with three different contents (the *double-distinctness* reading).

(4) Three informative books are heavy. (Gotham, 2014, p. 334)

However, some push-back against this claim has been made, since, in the context in (5), arguably (4) can be used to mean that three books (in the informative pile) are heavy, even if they are copies of the same informational book.

(5) Context: Librarians are sorting books into two piles: informative books and non-informative books. (Adapted from Liebesman & Magidor 2017)

These and other data raise questions about the semantics and pragmatics of modifiers in combination with polysemous expressions and and quantifiers/numerals. Namely:

DO MODIFIERS CONTRIBUTE TO THE INDIVIDUATION CRITERIA OF NOUNS? HOW DOES THIS INTERACT WITH OTHER ROLES THEY PLAY REGARDING NOMINAL DOMAIN RESTRICTION?

Selected references

- Asher, Nicholas & James Pustejovsky. “A Type Composition Logic for Generative Lexicon”. *Journal of Cognitive Science* (6 2006). reprinted in *Advances in Generative Lexicon Theory*, Kluwer Academic Publishers, 2010., pp. 1–38.
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- Liebesman, David & Ofra Magidor. “Copredication and property inheritance”. *Philosophical Issues* 27 (2017), pp. 131–166.
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