Lexical Semantics in Formal Semantics: History and Challenges
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Abstract

The early important achievements of formal semantics that made it of interest to linguists were in compositionality, i.e. 'the semantics of syntax', and in the semantics of a wide range of function words or morphemes and the constructions in which they occur -- determiners, especially quantifiers, tense and aspect markers, plurality, negation, comparative and superlative morphemes, and more. Montague assigned types to open-class content words, but did not try to specify their meanings, considering their study an empirical matter outside of formal semantics.

Over the course of the history of formal semantics, there has been great progress on the study of some semantic properties of open-class words, including aspectual properties of verbs, context-sensitive properties of words like *local* and *enemy*, polarity items, functional and relational nouns, mass nouns, and more. What these lexical properties have in common is that they all play crucial roles in semantic composition; these lexical studies have been driven by the goals of compositional semantics. What has remained unanalyzed is the "remainder" of the content of open-class words; those are still treated as unanalyzed primitives.

The issue of whether and how to try to add a fuller treatment of lexical content to formal semantics has a complex history which I will discuss, but was a side issue until very recently; and it is still draws less attention within theoretical circles than it does in the context of cognitive and computational perspectives. There are theoreticians who explicitly defend the idea of leaving the "remainder" of the meaning of lexical items unanalyzed linguistically. But even if one agrees with Montague's initial supposition that lexical semantics is a separate and more empirical field of study, it would be a major advance if we could understand what human lexical understanding is like and how it interfaces with the construction of sentence meaning and discourse interpretation.