Are Polysemy Effects Modulated by Sublexical, Lexical, and Semantic Factors?

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Abstract

Most words are polysemous, denoting related but distinct senses (e.g., chicken referring to an ANIMAL or to FOOD). Jager, Green, and Clelland (2016, LCN) reported facilitatory effects of polysemy on lexical processing that interacted with word frequency and type of task. We undertook a broader investigation of interactions between polysemy and several sublexical, lexical, and semantic properties of words, to determine whether such interactions could explain inconsistent effects of polysemy reported in the literature. Estimating degree of polysemy using dictionary sense counts, we studied the interaction between polysemy and these other properties when predicting performance in lexical decision and semantic categorization mega-studies. We observed interactions between polysemy and both lexical and semantic, but not sublexical, variables. Our results, while not replicating the exact effects reported by Jager and colleagues, highlight the importance of developing models of semantic ambiguity that take into consideration interactions with other psycholinguistic properties of words.