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Do linguistic distributional information and constituent sensorimotor similarity affect people's comprehension of novel noun-noun compounds?

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Abstract

Combining words in new ways is a hallmark of linguistic generativity. Previous work has shown that people's understanding of novel noun-noun combinations is influenced by the linguistic distributional information associated with a compound's constituents - words closer in semantic space are more likely to be judged as sensible/interpretable, and processed more quickly, than constituents that are further apart in semantic space. We extend this work by investigating whether two levels of linguistic distributional knowledge (first-order local co-occurrences, second-order contextual similarity), and the sensorimotor similarity of the constituents, impact people's processing effort. In two experimental studies, we found that linguistic distributional information facilitated processing of novel combinations for both shallow sensibility judgements, and deeper interpretation generation. Effects were stronger for interpretation generation, and for distributional measures, but these effects were mediated by the concrete/abstract nature of a compound's head noun. The findings support embodied theories that propose a strong role for linguistic distributional information.