

How Do Verbs Change Their Meaning? Evidence for Minimal Subtraction

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Abstract

Verb metaphor has received little attention compared to noun metaphor. But verbs may be more likely to take on metaphoric meanings than are nouns. One indication of this is verb mutability: verbs are more prone to adapt their meanings under semantic strain than nouns (Gentner & France, 1988; King & Gentner, 2019). We tested the minimal subtraction hypothesis (Gentner & France, 1988), which proposes (1) domain-specific dimensions of a verb's meaning are adjusted before abstract relational structure, and (2) degree of adjustment increases with strain. In three experiments, we collected paraphrases of simple sentences and using word2vec found progressively greater abstraction of verb (but not noun) meaning with strain. For example, a typical paraphrase of *The wagon limped* was *The cart creaked along*; a typical paraphrase of *The fantasy limped* was *The imagination faltered*, reflecting greater abstraction of *limped*. These findings support the minimal subtraction account of verb metaphoric extension.