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Conceptual and affective alignment in sensory metaphor

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Abstract

What is conveyed by sensory metaphor? Zhu et al. (2024) found that concepts metaphorized by the same sensory words were more closely aligned in dual categorization (IAT) tasks than was predicted by their alignments in word embedding models. The present study utilized 132 distinct IATs to measure conceptual alignment of words metaphorized by 99 sensory metaphors to test generalizability. This time, affective alignments were additionally measured: A semantic differential method and principal components analysis yielded a three-dimensional affective vector space, which was used to compute a measure of affective alignment. Linear models showed that affective alignments and conceptual alignments (from word embedding models) each predicted independent portions of the variance in the IAT data. Even with both of these sources of variation taken into account, concepts sharing a common sensory metaphor were more aligned than those paired at random. Sensory metaphors may simultaneously convey affective, semantic, and perceptual meaning.

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