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The early cue catches the word: how gesture supports cross-situational word learning

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Abstract

Gesture is important for language acquisition, but how gesture and its temporal aspects integrate with other information is not fully known. We manipulated referential ambiguity, and the availability and timing of a deictic gesture during training on a word-learning task with adults to assess how gestural cues alter learning when tested on those words. We demonstrate that the presence of a gestural cue during training in a condition with two potential referents can reduce referential ambiguity sufficiently to produce performance at test similar to a condition with only one referent. We further show that learners demonstrate better performance at test with gestures that occur prior to, rather than after, the verbal label in training. Gesture during learning thus appears better at predicting, rather than confirming the referent. These results offer insight into how cues can facilitate the disambiguation of meaning during word learning. Pre-registration: https://osf.io/exq7d/?view_only=8b28001e56404ff79c2258f3b66d7474 Keywords: word learning; language acquisition; multiple cues; gestures; temporal; word-referent mapping