

Public Abstract

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Title: Clues to Meaning: Exploring Potential Effects of Paired, Congruent Cues on Toddlers' Word Learning

Young children learn words with amazing ease. Children produce their first words around 12 months of age, and by the time they are six years old, they have learned about 14,000 words (Templin, 1957). Studies investigating how children learn words have identified several types of cues or mechanisms that help toddlers figure out the meanings of new words. Researchers have found that when one of these cues is presented in isolation (i.e., a single cue to meaning accompanies the occurrence of a new word), children use it to map the new word to an appropriate object. Studies have also revealed that the relative importance children attribute to different cues changes as children develop.

The real world, however, is considerably messier than a laboratory, and children are potentially exposed to more than one cue to a word's meaning at any given time. The word-learning environment, then, might involve overlapping cues and require children to integrate several different types of cues to a word's meaning. Whether children can take advantage of different cues presented simultaneously has not been studied. The current study examined (1) whether toddlers more accurately inferred and remembered word meanings when they were provided with two cues than when provided with a single cue, (2) whether developmental changes were evident in toddlers' ability to use paired word-learning cues, and (3) whether different cue types and their combinations were equally helpful to toddlers trying to learn the meanings of new words.

Forty-eight toddlers (12 each at ages 18, 24, 30, and 36 months) participated in six trials that required them to infer the meanings of novel nouns (fastmapping trials). Three of the trials provided single cues to word meaning and the other three provided paired, congruent cues. Twenty-four hours later, we assessed children's memory for the words they had fastmapped correctly the previous day. All age groups except the 18-month-olds used the single and the paired cues to infer word meanings. The two older age groups also remembered the word meanings a day later. We found no significant difference in children's ability to infer and recall word meanings when they used single cues vs. paired cues. This suggests that the children in our study did not integrate the two cues. Children's fastmapping ability improved with age, but recall remained static. Some limitations on the number of word meanings a child can recall were also revealed: Children demonstrated better memory for the first three words that they learned than the last three, indicating that a ceiling might exist on the number of words that can be retained when they have been fastmapped in one intense session.

The typically developing children in this study were remarkably good at making use of a very limited amount of information, utilizing subtle cues with great efficiency to learn new words. Results of this study broaden our understanding of early word learning and also help focus future work investigating the nature of language delay.