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Whats in a Name, and When Can a [Beep] be the Same?

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Abstract

Words influence cognition well before infants know their specific meanings. For example, three-month-olds are more likely to form visually-based categories when exemplars are paired with spoken words than with sine-wave tones. We tested whether structure in infants environment can foster this effect. Caregivers often use exaggerated showing gestures when labeling objects, presenting words in synchrony with object motion, and creating amodal temporal structure in auditory and visual modalities. Because attention to amodal structure attenuates encoding information specific to just one modality, we hypothesized that it can lead auditory signals to impact visually-based categorization. Indeed, when 3-month-olds are familiarized to videos in which tones occur in synchrony with object motion, tones subsequently facilitate categorization, just like words. Moreover, familiarizing infants to word-object synchrony enhances their subsequent categorization in the presence of words. These results suggest that structure in infants environment may contribute to the special effects that words have on categorization.