

Do infants have categorical representations of intransitive actions?

Abstract

Verbs refer to categories of actions and events. Take “jump” for example. One can jump off the chair, down the stairs, or over the ditch. Jumping is also done by different people. Athletes jump, neighbor boys jump and dogs and cats jump. We refer to all these actions with a single verb *jump* despite their perceptual differences. Golinkoff and colleagues (2002) stated that forming categories of actions and relations without language is a fundamental task required for verb learning to take place. Therefore, whether infants can represent actions and events categorically is a highly relevant and important question in the studies of verb learning. The current research thus focuses on infants’ categorical representations of intransitive actions and their relationship with the acquisition of intransitive verbs.

Using the Preferential Looking Paradigm-Without Language (PLP/WL) (Pruden, Hirsh-Pasek, & Golinkoff), three age groups of infants are shown eight exemplars of different people jumping or marching in different ways. In the test, infants see a new exemplar of both jumping and marching side by side on the screen. If infants have categorically represented the eight exemplars, they should be familiar with the category of that action and show increased looking time to an exemplar from a novel category versus a new exemplar from the familiar category (a novelty preference). To check whether infants have a priori preferences for one action over the other, a salience trial with the same content as the test trial precedes exposure to the eight exemplars. Combined results of no-preference in salience and a preference for one action over the other in test will indicate a categorical representation of the familiarized action.

So far we have tested 23 infants in the three age groups (10- to 12-month-olds, $n = 5$; 13- to 15-month-olds, $n = 8$; and 19- to 24-month-olds, $n = 10$) with *jumping* being the familiar action and *marching* the novel action. Results showed an interesting relationship between infants' looking patterns and their vocabulary size. We analyze the vocabulary effect by splitting the participants into the high and low vocabulary groups around the median of parental reports of the infants' vocabulary. While neither group had a salience preference for *jumping* or *marching*, the high vocabulary group looked significantly longer at the novel action (*marching*) and the low vocabulary group looked significantly longer at the familiar action (*jumping*) in the test.

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