UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

Object Understanding: Exploring the Path from Percept to Meaning

Permalink

Journal

Authors

Kurtz, Kenneth
Silliman, Daniel

Publication Date

2017

Peer reviewed

Object Understanding: Exploring the Path from Percept to Meaning

Kenneth Kurtz
Binghamton University

Daniel Silliman
Binghamton University

Abstract: This research addresses the generation of meaningful interpretations of real-world perceptual stimuli. According to a widespread framework we will call the features-first view, a stimulus is initially encoded via semantically-laden, symbol-like properties that are compared to stored category representations to find the best match. Alternative theoretical perspectives challenge the features-first view, but there has been no direct empirical test. In our experiment, participants were shown photographic images of everyday objects and asked to judge as quickly as possible whether a provided verbal descriptive matched the picture. We tested different levels of delay between image and descriptive and found evidence that basic-level category labels were verified faster than clearly manifested descriptions of physical or functional properties. Accordingly, people know the category of the stimulus before knowing its semantic properties. The present evidence suggests that the category is used to achieve a property-level description of the meaning of the stimulus, not vice-versa.