

16-month-olds use language to generate expectations about the visual world

Allison Fitch

University of Massachusetts Boston, Boston, Massachusetts, United States

Patricia Ganea

University of Toronto

Paul Harris

Harvard University

Zsuzsa Kaldy

University of Massachusetts Boston

Abstract: The capacity to use language to form new representations and to revise existing knowledge is a crucial aspect of human cognition. Here we examined whether infants can use language to adjust their existing representation of a recently encoded scene. Using an eye-tracking paradigm, we asked if 16-month-old infants ($N = 26$; mean age: 16;03, range: 14;15-17;15) use new linguistic information about an occluded event to inform their expectation about what the visual world should look like. We compared looking time to outcomes that matched this information to those that did not. Infants looked significantly longer when the outcome did not match the input, suggesting that they generated an expectation of the outcome based on language alone. This effect was unrelated to infants' vocabulary size. Thus, using language to form expectations about the visual world is present at an early developmental stage, even when language skills are rudimentary.