

Modal concepts: developing thoughts of the possible and the impossible

Brian Leahy

Harvard, Cambridge, Massachusetts, United States

Susan Carey

Harvard University, Cambridge, Massachusetts, United States

Abstract

What is it to represent a single world as having alternative, mutually inconsistent possible futures? A large literature explores this question from philosophical and linguistic perspectives, along with a growing literature in developmental psychology. Recent findings suggest that 36 month olds (Redshaw and Suddendorf 2016) or even 14 month olds (Cesana-Arlotti et al. 2018) prepare for multiple alternative possible futures. These experiments did not require participants to contrast the possible with the impossible. We replicated Redshaw and Suddendorf (2016), and added conditions that required participants to contrast the possible with the impossible. 36 month olds now failed, as did many 48 month olds, suggesting that their representations do not capture the structure of possibilities. 48 month olds tended to pass our test, but their understanding of possibilities was still fragile. These data converge with other results suggesting that concepts of possibility and impossibility are constructed in the late preschool years.