

Alexandra Carstensen – Abstract

The Role of Language in Relational Reasoning: Evidence from Mandarin Chinese

Young children exhibit a puzzling decline in relational reasoning. Specifically, 3-year-olds fail in a relational match-to-sample task, while younger children (18-30 months) succeed (Walker, Bridgers, & Gopnik, 2015). Walker et al. suggest that older children fail because of a learned bias toward individual object properties at the expense of relational structure. Several proposals link this bias to language, which has been shown to predict and foster relational reasoning (e.g., Walker, Hubachek, & Gopnik, 2014; Christie & Gentner, 2014). One possibility is that the bias toward object-centric solutions is due, in part, to English word learning, which emphasizes nouns (and object properties) over verbs. If so, children learning a language with a stronger emphasis on verbs, like Mandarin Chinese, may show an attenuated decline in relational reasoning. We test this possibility by replicating Walker et al.'s relational match-to-sample study in China, and find that Mandarin-speaking 3-year-olds substantially outperform their English-speaking peers in the U.S. We discuss mechanisms through which language and culture may promote (or hinder) the early development of relational reasoning