Relational Reasoning with Semantically Similar Labels in Four-year-old Children

Sheela Ramesh

Carnegie Mellon University

Bryan Matlen

Carnegie Mellon University

Anna Fisher

Carnegie Mellon University

Abstract: The present study explored childrens ability to utilize semantically similar labels in a relational reasoning task. Four-year-old children were presented with a base word-pair (e.g., Castle:Rock) and given a partially completed target word-pair (Castle: ?) that they could complete with a label that made the target word-pair relationally identical to the base word-pair (e.g., Stone). Additional response options included a label that was thematically related to the first word in the target pair (e.g., King; in the Thematic Lure condition) or an unrelated word (e.g., Milk; in the Unrelated Lure condition). Childrens ability to reason with semantically similar labels was compared to their ability to complete the task relying on identical labels. Results indicated that children exhibited difficulty performing the task with semantically similar labels, but not with identical labels. These results suggest that understanding that labels refer to kinds has not yet matured by four years of age.