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The Roles of Gesture and Statistical Cues on Infants' Word Learning in Shared Storybook Reading

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Abstract

Children rapidly learn the word-object mappings even though they are facing the challenge of referential uncertainty (Quine, 1960). When parents read books to their infants, how do infants learn to associate the words with multiple objects on the page. Using data from parent-child book reading interactions, we analyzed moment-by-moment eye movement data to examine the role of gesture and statistical cues on word learning. Specifically, we investigated 1) whether parent's and child's gestures could direct the child's attention to the object named by the parent during naturalistic storybook reading; 2) given that parents repeatedly name objects, how statistical information across multiple instances could provide converging evidence of the correct word-object mapping? Using data jointly created by parents and children in everyday book reading context, we demonstrated that both gesture cues and statistical information across multiple instances could dramatically reduce referential ambiguity and provide converging evidence of the correct word-object mappings.