Predictive language processing in young children with ASD

Kathryn Prescott; University of Wisconsin-Madison
Janine Mathee-Scott; University of Wisconsin-Madison
Tracy Reuter; University of Wisconsin-Madison
Jan Edwards; University of Maryland
Jenny Saffran; University of Wisconsin-Madison
Susan Ellis Weismer; University of Wisconsin-Madison

Recent theories propose that differences in prediction (i.e., the ability to anticipate upcoming information) underlie language disparities between typically-developing (TD) children and children with autism spectrum disorder (ASD). Although some evidence challenges this view, previous research has largely focused on school-aged children with ASD. Addressing this limitation, the present study used a looking-while-listening task to evaluate predictive language processing among young children with ASD (n=34) and language-matched TD children (n=34). Children viewed images (e.g., a cake and a ball) and heard sentences which enabled predictions (e.g., Eat the cake) and neutral sentences (e.g., Find the cake). Analyses of children’s looking behaviors suggest receptive language measures – but, critically, not diagnostic status – is positively linked with prediction measures. These novel findings converge with and expand upon previous results with older children. By evaluating predictive language processing among younger learners, this study contributes to ongoing theoretical debates about the role of prediction in typical and atypical language development. This work was supported by: NIH R01 DC012513, NIH R01 DC002932, NIDCD R01 DC17974, and NICHD U54 HD090256.