Lay Abstract

autism

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Gaze to faces across interactive contexts in infants at heightened risk for autism

Devon N Gangi, AJ Schwichtenberg, Ana-Maria Iosif, Gregory S Young, Fam Baguio and Sally Ozonoff

The use of nonverbal communication, such as eye contact or gaze, is an important skill, and children with autism spectrum disorder (ASD) often experience difficulties in this area. Differences in gaze during infancy may serve as early signs of ASD and help identify individuals at highest risk for developing the condition. Researchers often measure such behavior in a single context, such as during a testing session with an unfamiliar examiner or while the child is playing with a parent. It is important to understand whether infant behavior is consistent across such contexts. We examined gaze to the face of a social partner at 6, 9, and 12 months of age in infants who were later diagnosed with ASD, as well as those without ASD, across two different contexts: (1) testing with an unfamiliar examiner and (2) play with a parent. By 9 months, infant gaze behavior was consistent across the two contexts, supporting the use of structured laboratory settings to assess infant social behavior. By 12 months, typically developing infants looked at the face of the parent more often than the face of the examiner. In contrast, infants who developed ASD did not change their behavior between contexts. This early lack of differentiation between contexts and social partners may be an early sign of ASD.