Abstract

Objective. Information foraging is atypical in both autism spectrum disorders (ASDs) and ADHD; however, while ASD is associated with restricted exploration and preference for sameness, ADHD is characterized by hyperactivity and increased novelty seeking. Here, we ask whether similar biases are present in visual foraging in younger siblings of children with a diagnosis of ASD with or without additional high levels of hyperactivity and inattention.

Method. Fifty-four low-risk controls (LR) and 50 high-risk siblings (HR) took part in an eye-tracking study at 8 and 14 months and at 3 years of age.

Results. At 8 months, siblings of children with ASD and low levels of hyperactivity/inattention (HR/ASD-HI) were more likely to return to previously visited areas in the visual scene than were LR and siblings of children with ASD and high levels of hyperactivity/inattention (HR/ASD+HI).

Conclusion. We show that visual foraging is atypical in infants at-risk for ASD. We also reveal a paradoxical effect, in that additional family risk for ADHD core symptoms mitigates the effect of ASD risk on visual information foraging.