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Project Title: ERP Response to Faces and Objects in Infants at High and Low-Risk for Autism Spectrum Disorder

Abstract:

This research examines face processing is impaired in infants at high-risk for autism spectrum disorder (ASD) versus low-risk infants. My hypothesis is that individuals with ASD fail to hold a special status for faces, and therefore process them similarly to objects. It is important to understand the onset of this impairment to understand the development of social impairment at the neurological level. I have analyzed differences in amplitude and topography of event related potential (ERP) components of electroencephalography (EEG) recordings derived from participants in response to pictures of objects and faces. Two groups of participants were tested; 18 typical infants and 12 at-risk infants. Participants were shown the pictures and ERP components were derived from averaging EEG response to pictures over many trials. Results show significant group differences in brain region activity which suggests regional activation and face processing differences between participant groups.