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TITLE: Recognition and Discrimination of Faces in Individuals with Autism Spectrum Disorder

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ABSTRACT

Research in the field of face perception and autism has generated diverging and somewhat contradictory theories about how individuals with Autism Spectrum Disorder (ASD) perceive faces. Some people have suggested that individuals with ASD have difficulty in face perception because they focus primarily on the mouth, which provides relatively little information for face discrimination. Previous work from our labs does not support this view, but our findings were indirect. Here we use reverse correlation to gain a direct view of face processing in individuals with ASD. The participants in our study were 3 high-functioning males with ASD and 3 community individuals matched for gender and IQ. Observers discriminated two target faces masked with noise, with the contrast of each target face being varied over the course of two sessions of 1,500 trials according to a staircase procedure that converged at 71% correct. The results from our study suggest that individuals with ASD use similar strategies as typically developed individuals when looking at faces, focusing primarily on the eye region and less on the mouth region. Our findings also suggest that impairments in facial recognition are not a necessary characteristic for individuals with ASD.