When cartoon differ from real faces: Facial emotion processing in Autism Spectrum Disorders

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Abstract

Deficits in facial emotion recognition are a hallmark of autistic spectrum disorders (ASD). To better understand the origins of these deficits, we conducted a series of experiments with children with and without ASD, exploring the influence of expertise in processing cartoon versus real face displays. Children with ASD demonstrated greater interest in cartoon than human faces. Further, their responses suggested a typical configural strategy for recognizing emotions on cartoon faces, but an atypical, local strategy with human faces. This suggests that a lack of expertise in examining human faces was associated with atypical perceptual processing. Interestingly, our results showed that the lack of expertise with faces influenced other domains of competences, as well. The ASD group showed greater sensitivity for cartoon faces in a perceptual categorisation task, in visual search, and in a priming task. The current results showed disparities between cartoon and human faces processing in children with ASD, linked to the role of expertise. It is possible that cartoons may be particularly useful in interventions for ASD.

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