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Autism and social perception: a less stereotypical view of facial expressions

To contribute to a better understanding of social function in autism, a new article has investigated how autistic individuals process and perceive facial expressions and how this affects their social evaluation of others. The results revealed that autistic individuals showed less stereotypical predictions, and their social evaluation is similar to that of people without autism.

Pexels/Rdne

Autism is a neurodevelopmental disorder characterized by challenges in communication and social interaction, as well as restricted and repetitive patterns of behavior, interests, or activities. Part of the research focuses on how people with autism perceive and evaluate others in social contexts, particularly in the **perception of facial expressions**. Traditionally, autism has been assessed using emotion recognition tasks that primarily rely on accuracy, which limit the understanding of differences between autistic and non-autistic individuals.

A recent study from the CASLab (Cognitive and Affective Science Lab) investigates how autistic individuals process and perceive facial expressions and how this affects their social evaluation of others. The approach is based on the **theory of predictive processing**, which suggests that the brain constantly makes predictions about what will happen, comparing them with actual sensory information. In studies with people with autism, it has been proposed that there is a greater tendency to process prediction errors (i.e., a preference for

processing situations where sensory information does not fit the internal predictive model), compared to predictions.

To explore this, a **social perception task** was used, assessing how people perceive emotions in other people's faces. Participants were shown a picture of a person and a text describing a situation that evokes a specific emotion (fear, happiness, or sadness). Then, a second picture of the person was presented showing a facial expression that either matched or did not match the emotion evoked by the scenario. Participants were asked to indicate how similar the facial expression was to what they had imagined after reading the text and how pleasant they found the person to be.

The results revealed that **autistic individuals showed less stereotypical predictions** than controls. That is, people with autism considered facial expressions that matched the emotion of the scenario to be less aligned with their own predictions of how the person would look in that situation. However, despite these differences, the use of these predictions for social evaluation did not differ significantly between the autism and control groups**. Autistic individuals relied on their predictions to evaluate others to the same extent as controls**. That is, faces expressing emotions that matched the emotion evoked by the scenario tended to be rated as more pleasant.

These findings suggest that **autistic individuals may have different expectations about facial expression**s, and that **their social evaluation strategies based on these predictions remain intact**. This contributes to a better understanding of social function in autism.

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References

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