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Authors

Tso, Ricky Van-yip
Chui, Celine On Hang
Hsiao, Janet

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How Face Mask in COVID-19 Pandemic Disrupts Face Learning and Recognition in Adults with Autism Spectrum Disorder?

Ricky Van-yip Tso
The Education University of Hong Kong, Taipo, N.T., Hong Kong

Celine On Hang Chui
The Education University of Hong Kong, Hong Kong, Hong Kong

Janet Hsiao
University of Hong Kong, Hong Kong, Hong Kong

Abstract

The use of face masks is one of the measures adopted by the general community to stop the transmission of disease during this ongoing COVID-19 pandemic. This wide use of face masks has indeed been shown to disrupt day-to-day face recognition. People with autism spectrum disorder (ASD) often have predisposed impairment in face recognition and are expected to be more vulnerable to this disruption in face recognition. When faces were initially learned unobstructed, we showed that people with higher autistic traits had a lower face recognition performance for masked faces. In contrast, there was a stronger facilitation in subsequent face recognition of masked faces in typically developing adults, but not in adults with ASD, when masked faces were learned first—this face recognition facilitation is predicted by a higher level of empathy. This paper also discusses how autistic traits and empathy influence processing of faces with and without face masks.