

Wearable Platform to Foster Learning of Natural Facial Expressions and Emotions in High-Functioning Autism and Asperger Syndrome

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DESCRIPTION:

Evaluate the scientific and clinical significance of using a wearable camera system (Self-Cam) to improve recognition of emotions from real-world faces in young adults with Asperger syndrome (AS) and high-functioning autism (HFA). The study tests a group of 10 young adults diagnosed with AS/HFA who are asked to wear Self-Cam three times a week for 10 weeks, and use a computerized, interactive facial expression analysis system to review and analyze their videos on a weekly basis. A second group of 10 age-, sex-, IQ-matched young adults with AS/HFA will use Mind Reading – a systematic DVD guide for teaching emotion recognition. These two groups will be tested pre- and post-intervention on recognition of emotion from faces at three levels of generalization: videos of themselves, videos of their interaction partner, and videos of other participants (i.e. people they are less familiar with). A control group of 10 age- and sex-matched typically developing adults will also be tested to establish performance differences in emotion recognition abilities across groups. This study will use a combination of behavioral reports, direct observation, and pre- and post- questionnaires to assess Self-Cam's acceptance by persons with autism. We hypothesize that the typically developing control group will perform better on emotion recognition than both groups with AS/HFA at baseline and that the Self-Cam group, whose intervention teaches emotion recognition using real-life videos, will perform better than the Mind Reading group who will learn emotion recognition from a standard stock of emotion videos.