

Poster presented at European Conference of Visual Perception (ECVP), Utrecht.

Perception of biological motion in individuals with autism spectrum.

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The question of whether individuals with autism spectrum disorder (ASD) are impaired in the perception of biological motion is as yet unresolved. Here adults with high-functioning autism and neurotypical controls judged the direction of motion of a normal or spatially scrambled point-light walker which, on each trial, walked from the centre of the screen either leftward or rightward at $\sim 3 \text{ deg s}^{-1}$ in a strip of scrambled walker noise of variable density. The walker appeared with variable onset time between 0 and 500 ms after the noise onset. While the ASD group showed slower reaction times and more errors in judging the direction of motion, their performance was otherwise comparable to controls; specifically, they showed superior performance for normal over scrambled walkers, for delayed over immediate onset, and they showed comparable increases in reaction time and error with noise density. Finally, error rates differed on left and rightward trials, an effect which distinguished ASD and control performance: this is discussed with reference to hemispheric asymmetry in local and global processing.