

## Recognizing Biological Motion and Emotions from Point-Light Displays in Autism Spectrum Disorders, LoS ONE 7(9):e44473 · September 2012

One of the main characteristics of Autism Spectrum Disorder (ASD) are problems with social interaction and communication. Here, we explored ASD-related alterations in 'reading' body language of other humans. Accuracy and reaction times were assessed from two observational tasks involving the recognition of 'biological motion' and 'emotions' from point-light displays (PLDs).

Eye movements were recorded during the completion of the tests. Results indicated that typically developed-participants were more accurate than ASD-subjects in recognizing biological motion or emotions from PLDs. No accuracy differences were revealed on two control-tasks (involving the indication of color-changes in the moving point-lights).

Group differences in reaction times existed on all tasks, but effect sizes were higher for the biological and emotion recognition tasks. Biological motion recognition abilities were related to a person's ability to recognize emotions from PLDs. However, ASD-related atypicalities in emotion recognition could not entirely be attributed to more basic deficits in biological motion recognition, suggesting an additional ASD-specific deficit in recognizing the emotional dimension of the point light displays.

Eye movements were assessed during the completion of tasks and results indicated that ASD-participants generally produced more saccades and shorter fixation-durations compared to the control-group. However, especially for emotion recognition, these altered eye movements were associated with reductions in task-performance.

[https://www.researchgate.net/publication/230834609\\_Recognizing\\_Biological\\_Motion\\_and\\_Emotions\\_from\\_Point-Light\\_Displays\\_in\\_Autism\\_Spectrum\\_Disorders](https://www.researchgate.net/publication/230834609_Recognizing_Biological_Motion_and_Emotions_from_Point-Light_Displays_in_Autism_Spectrum_Disorders)