Do disturbances in social interaction influence visual scene exploration in psychotic patients?
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Psychotic patients exploring human faces were reported to show patterns of extensive staring (restricted visual scanpaths and longer fixation duration), irrespective of suffering more from negative or from positive symptoms (Williams et al, 1999 Schizophrenia Research 40 189 - 199; Manor et al, 1999 Biological Psychiatry 46 963 - 969). Here, we tested whether these scanpath abnormalities depend on the visual stimulus material used, and thus underlie aspects of disturbance in social interaction. Eye movements (SMI eye tracker) of psychotic patients and age-, gender-, and education-matched control subjects were recorded, while participants viewed images of human faces, landscapes, and fractals. Patients with negative symptoms mostly showed extensive staring. For patients with positive symptoms, exploration strategies varied from extensive staring over normal exploring to extensive scrutinising. Individual exploration strategies did not change with the stimulus material used. Instead, there were significant differences between the patients and the control group in the vertical distribution of subsequent fixations, but not in lateral distributions. Taken together, this suggests that not disturbances in social interaction but rather sensory characteristics influence scanpath abnormalities in psychotic patients.

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