

Article: 0376

Topic: EPO06 - e-Poster Oral 06: Schizophrenia 2, Suicidology and Suicide prevention, Treatment Practice and Obsessive-Compulsive Disorder

Self-face Recognition in Schizophrenia: Preliminary Eye-tracking Study

C. Bortolon¹, D. Capdevielle¹, R.N. Salesse², L. Marin², B.G. Bardy², S. Raffard¹

¹La Colombière Hospital - SUPA, CHRU Montpellier, Montpellier, France ; ²Movement to Health Laboratory EuroMov, Montpellier University 1, Montpellier, France

Introduction: Altered self-awareness has been hypothesized as a core feature of schizophrenia [1]. However, eye-tracking methodology has never been applied to investigate how patients recognize their own face.

Objective: We aimed to explore scan path strategies used by schizophrenia patients while discriminating their own face compared to an unknown face.

Method: Faces were morphed in steps of 20% (Figure 1). Unknown faces were extracted from the NimStim set [2]. Location and number of fixations on relevant areas were recorded with a Mobile Eye XG.

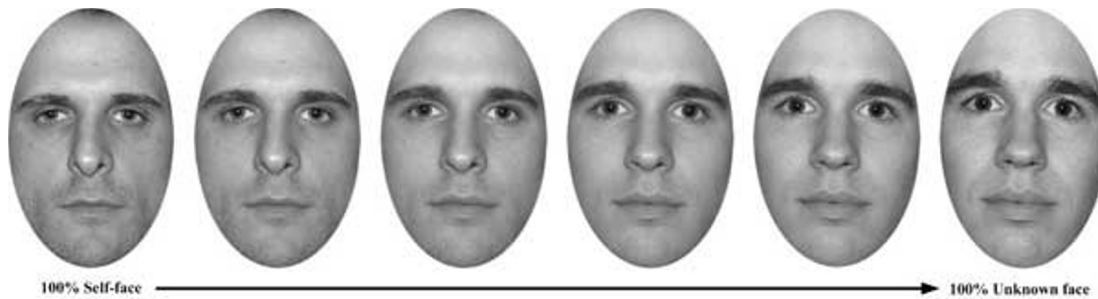


Figure 1. Morphing between self-face and unknown face in steps of 20%

Results: Healthy controls (N=10) fixated qualitatively and quantitatively both faces equally ($p=0.647$). Schizophrenia patients (N=13) looked more at their own face ($p=0.006$), although, they looked more outside the relevant features (eyes, nose, mouth) compared to unknown face ($p=0.0001$). Conversely, unknown-faces features were properly fixated (eyes particularly) compared to self-face ($p=0.001$). Finally, discrimination accuracy and self-face fixation number were significantly correlated ($r=-0.572$).

Conclusions: Eye-tracking measures revealed that healthy controls explored both faces equally. However, patients revealed negative correlation between the amount and the relevance of fixations. These results suggest that 1) this specific tracking behavior pattern might contribute to self-face recognition impairment and 2) schizophrenia patients explored their own face in a particularly different way. Clinical implications need yet to be explored.

References:

[1] Kircher TT, Seiferth NY, Plewnia C, et al. Self-face recognition in schizophrenia. *Schizophr Res*, 2007, 94:264–272.

[2] Tottenham N, Tanaka J, Leon AC, et al. The NimStim set of facial expressions: Judgments from untrained research participants. *Psych Res*, 168:242–249.