

less than 2 months with their parents each month, and the non-left-behind children with matched gender, age and education years, exclusion criteria is: neurological diseases, family history of mental illness, broken family (single parent, bereavement), high myopia (greater than 1000 degrees), eye and eyelash cannot be identified by infrared light. EyeControl portable eye movement tester (built-in infrared, speed: 100Hz, error <math><0.5^\circ</math>) developed by Qingtech and its software processing system were used. The subjects' eye movements and various analysis indexes in various tasks were collected. The eye movement indexes of smooth pursuit eye movement, fixation stability and free browsing were collected, so as to investigate the effects of left-behind on static attention retention, visual tracking and face recognition in social scenes.

Results: Among the 175 children, the smooth tracking mean deviation of LBC is significantly increased ($P=0.017$). The mean deviation of the O and S-curve tracking of the LBC is significantly increased ($P=0.018$; $P=0.034$), and the OS curve mean deviation and hyperactivity correlated ($r=-0.273$, $P=0.011$). In terms of the time that peak deviation takes ($F=4.329$, $P=0.014$), there is significant interaction between the age groups and the left-behind groups. In the social scenes, the first fixation time of face ($P=0.039$), the number of eye entry count ($P=0.020$), and the eye fixation time ($P=0.003$) of LBC are all significantly reduced, and the number of mouth entry count ($P=0.007$) and the number of fixation ($P=0.023$) of LBC are all significantly increased. Under the circumstance of low facial processing, there is a significant difference between LBC and NLBC ($P=0.009$), and that difference is not significant under the circumstance of high facial processing, and there is a significant difference between low facial processing LBC and high facial processing NLBC ($P=0.007$).

Discussion: Left-behind children have obstacles in dynamic visual information processing, insufficient inhibition and control, and poor cognitive flexibility, which may be related to hyperactivity. The attention retention in visual tracking decreased with the increase of age. Left-behind children have difficulties in face recognition in social scenes. In the case of low facial processing, left-behind children aggravated the defects of speech comprehension, while in the case of high facial processing, left-behind children had no significant influence on speech comprehension. Therefore, we should intervene the left-behind children in the early days, and this study provides a scientific basis for the formulation of social policies.

M6. REDUCED READINESS POTENTIAL AS A NEUROPHYSIOLOGICAL CORRELATE OF SELF-DISTURBANCES IN EARLY-COURSE PSYCHOSIS: PRELIMINARY FINDINGS FROM A HIGH-DENSITY EEG STUDY

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Background: Self-disturbances reflect a core dimension of Schizophrenia that can be identified before disease onset and might underlie the development of typical psychotic symptoms. The Sense of Agency (SoA) can be conceptualized as the pre-reflective sensation of being the one who is causing or generating an action or thought. Passivity phenomena, such as the reported feeling and belief that one's thoughts or actions are generated and/or controlled by an external agent, are exquisite examples of SoA disturbances observed in Schizophrenia. Despite intensive research, the neurobiological pathogenetic mechanisms underlying such disturbances remain unclear.

Among several putative neurophysiological brain abnormalities, a reduction of the Bereitschaftspotential, also called pre-motor or Readiness Potential (RP), was described in chronic, medicated patients with Schizophrenia. Given its anticipation of voluntary movement by 1 – 2 seconds over the motor cortex and supplementary motor area contralateral to the effector,

RP has previously been proposed to be a neural signature of volition to initiate movement. Interestingly, higher RPs among healthy subjects have been recently associated with stronger intentional binding, suggesting increased SoA in subjects exhibiting stronger pre-movement activity. The objective of our work was to study RP abnormalities in patients with a psychotic illness of recent onset and to relate them to self-disturbances, in order to clarify the relationship between known neurophysiological and psychopathological abnormalities.

Methods: We employed high-density electroencephalography (64-channel BrainAmp, Brain Products GmbH, Gilching, Germany) to record scalp potentials during a self-paced movement task in a group of seven early-course psychosis patients (mean age = 24.5, range 20–33) and an equal group of age- and gender-matched (mean age = 25.3, range 19 – 36) healthy control subjects. Patients were recruited during an acute stage of their disorder requiring hospitalization and were treated with low-dose atypical antipsychotics. Exclusion criteria included major medical or neurological illness affecting the CNS and any intellectual developmental disorder. Several parameters related to the elicited RP were recorded, including maximum amplitude and slope. The Examination of Anomalous Self Experience (EASE) scale was chosen to assess Self-disturbances in the patient group by an experienced clinician who was blind to the neurophysiological outcome.

Results: RP was found to be reduced in patients, compared to healthy control subjects, in both its amplitude and slope ($p < 0,005$) despite comparable EMG activity. EASE scores of items 'EASE-10' (a comprehensive item that reflect most prototypically the disorders of self-experience) and 'EASE-2' ("Self-Awareness") appeared to increase monotonically with the decrease of RP slope ($p < 0,05$).

Discussion: Our preliminary data show that disturbances of RP are present since the early course of psychotic disorders. They also suggest that such abnormalities may reflect the severity of self-disturbances in these patients. If confirmed in a larger, medication-naïve samples, our findings might clarify the underlying neural mechanisms of such abnormalities and provide a solid basis for further investigation of RP disturbances as an early biological marker for Schizophrenia spectrum disorders.

M7. LOWER THALAMIC DOPAMINE D2-RECEPTOR BINDING IN DRUG-NAIVE PATIENTS WITH PSYCHOSIS – A REPLICATION STUDY USING POSITRON EMISSION TOMOGRAPHY

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Background: The dopamine system is a central focus of research on the pathophysiology and treatment of schizophrenia. With regard to the dopamine D2-receptor (D2-R), Positron Emission Tomography (PET) studies have shown a small increase in striatal receptor availability. In contrast, a more recent line of research has demonstrated lower levels of D2-R (Cohen's $D = -0.32$) in the thalamus, a region of key interest for the pathophysiology of schizophrenia. However, some studies included patients previously on antipsychotic medication, or were performed using radioligands with