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## FACIAL AFFECT RECOGNITION: ELECTROPHYSIOLOGICAL FINDINGS IN SCHIZOPHRENIA

S. Komlosi<sup>1</sup>, G. Csukly<sup>1</sup>, G. Stefanics<sup>2</sup>, I. Czigler<sup>2</sup>, P. Czobor<sup>1,3</sup>

<sup>1</sup>Department of Psychiatry and Psychotherapy, Semmelweis University, <sup>2</sup>Psychology Research Institute of the Hungarian Academy of Sciences, Budapest, Hungary, <sup>3</sup>Nathan Kline Institute for Psychiatric Research, Orangeburg, NY, USA

**Introduction:** While deficits in facial emotion recognition in schizophrenia have consistently been shown, the underlying neuronal mechanisms remain unclear. Electrophysiological measures, such as event-related brain potentials related to facial emotion recognition yield insight into the time course of recognizing emotional faces.

**Objectives:** In our study we aimed to delineate the neurophysiological correlates of facial emotion recognition and to investigate where, when, and what components in the course of emotional information processing show impairment in schizophrenia.

**Methodology:** We collected data using a 128-channel EEG recording system for testing an experimental facial emotion recognition paradigm with 20 patients with schizophrenia and 20 matched healthy controls. Subjects were presented fearful and neutral emotional facial expressions on a monitor and asked to make decisions via a button press relating to either the gender or the emotion of the presented face.

**Results:** Our findings revealed that ERPs of patients with schizophrenia significantly differed from those of matched healthy controls in several components and areas characteristic to facial emotion processing, showing differences in both early and late ERP components of emotional face processing. Significant main effects of task (gender vs emotion) and emotion (fear vs neutral) were also found.

**Conclusion:** The finding that patients with schizophrenia, as compared to healthy controls, show differences in emotional face processing in several cortical areas and time intervals underlines the hypotheses that a deficit in affect recognition may originate from the impairment of a distributed facial emotion recognition network, including both early perceptual and later phases of facial emotion processing.