
Interoception Sensitivity and Autonomic Regulation During Social Interaction in Schizophrenia

M. Ardizzi¹, M. Ambrosecchia¹, L. Buratta², M. Peciccia², S. Donnari³, C. Mazzeschi², V. Gallese¹

¹Department of Neuroscience, University of Parma, Parma, Italy ; ²Department of Philosophy Human Social and Educational Sciences, University of Perugia, Perugia, Italy ; ³ONLUS, Sementer, Perugia, Italy

Introduction - The awareness of one's body constitutes a basic experience of Self which modulates the individual engagement in social interactions. Indeed, Interoception Sensitivity (IS), an index of individual ability to represent one's own internal body states, is implicated in the autonomic regulation in interpersonal context. Schizophrenia deficits in Self-experience and awareness, which frequently entail anomalies in self-other relationship, capture the ever-growing attention of researchers. Nevertheless, IS and autonomic regulation of schizophrenic patients in social context are completely new and not yet investigated aspects of Schizophrenia.

Aim –To investigate whether Schizophrenia could be associated with lower IS and with a dysfunctional autonomic regulation during social interaction.

Methods - 24 chronic schizophrenia patients, and a matched group of healthy controls, performed a Social and a Non-social task while respiratory sinus arrhythmia (an index of autonomic regulation) was measured. In the Social task participants viewed an experimenter performing a caress-like movement at different distances from their hand. In the Non-social task a metal stick was moved at the same distances from the participants' hand. As measure of IS, a cardiac Mental Tacking Task was performed.

Results – Comparing to controls, Schizophrenia patients presented lower IS, absence of relation between IS and autonomic regulation, and an anomalous autonomic regulation in social and non-social contexts.

Conclusions - Deficits in Self-experience, associated with Schizophrenia, could be extended to patients' sensitivity to internal bodily signals. Moreover, the observed altered autonomic regulation will be part of interpersonal interaction deficit frequently associated to Schizophrenia.