

## SOCIAL MOTOR COORDINATIONS: A STUDY WITH SCHIZOPHRENIA AND SOCIAL PHOBIC PATIENTS

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**Introduction:** Social interactions dysfunctions make up core symptoms of many mental disorders and have been extensively studied through cognitive paradigms gathered under the concept of social cognition. Nevertheless, a growing body of literature have demonstrated that motor coordination is an important feature of these human social interactions but has been little studied in the context of mental diseases.

**Objective:** In this study, we propose to compare the processes of inter-agent coordination in healthy and socially impaired clinical populations (e.g. schizophrenia and social phobia patients).

**Method:** 20 schizophrenia and 20 social phobia patients were compared to 20 healthy subjects using an hand-held pendulum paradigm in intentional and unintentional interpersonal motor coordination, with different leadership conditions. All participants had psychopathological and neuropsychological evaluations.

**Results:** Our results demonstrated that each group of subject was characterised by specific signature concerning interpersonal motor coordination. More specifically, instability of the coordination and temporal delay between patient and controls revealed that schizophrenia impaired intentional coordination but not spontaneous non-intentional coordination whereas social phobia only affected leader conditions.

**Conclusion:** Taken altogether, these preliminary results give evidence that motor control through motor coordination behaviours is a fundamental part of social interactions deficits in schizophrenia and social phobia. These results lead us to examine if the evaluation of motor coordination during a social interactions could help to discriminate the deficits in social interactions and to propose specific therapy for their rehabilitation.

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