

Is autism Spectrum Disorder (ASD) a Mind-and-Somatic State "Neuro-Managing" System Malfunction? About Some Possible Mechanisms of this Kind of Neurodevelopmental Disorder

(Oleksii Tanasiienko¹, Olena Tanasiienko²)

¹META GENIUS™ Strategy Group, Kyiv, Ukraine

²Medical Center "The Center for Neuro Diagnostics", Kyiv, Ukraine

Introduction: The problem of autism spectrum disorder (ASD) is becoming more acute in the world. Traditionally, ASD is seen as a violation of the neurodevelopmental disorder, characterized by disorders of social interaction, verbal and non-verbal communication, as well as limiting the manifestation and repetition of patterns of behavior. It is not just some local mental anomaly, but a multifunctional systemic disorder, based on problems of different origins: immunological, neurological, biochemical, social, cultural, etc. Usually, signs of autism manifest themselves in the first two years of a child's life and do not completely disappear in the adult age, even under the most favorable scenarios of therapy and social rehabilitation.

Purpose: The present paper is attempt to made an interpretation of some of the latest experimental data published by another research team working in Israel that studied the misunderstanding of emotional signals, based on laboratory studies of adult subjects (both autistics and neurologically typical) and a comparative analysis of their altered responses to social chemosignals.

Design/Methodology/Approach: It has been suggested that autistic persons lack a mechanism of transferring the acquired "neuro-experience" that is "imprinted" into the neuro-network of the bearer of this neuro-experience, from one individual to another, that is not yet studied, and presumably present in neurotypical people, but suppressed (broken) in autistics. Is proposed a conceptual model based on the supposition to explain observed phenomena.

Results: The concept of the of Neuro-Landscapes Transfer (NLT) is proposed as an instrumental model for constructing further researches and interpreting the obtained data, which allows us to take a fresh look at the "mechanism" of functioning of ASD and introduce Neuro-Landscapes Cloning (NLCln), Neuro-Landscape Contamination (NLCnt) and some other models for the presentation of possible processes of intraspecific transmission of acquired neuro-experience, important in describing the significant changes taking place in the mental and somatic field, also in the field of social interaction among autistic people themselves and among both autistics and neurologically typical persons.

Limitations and strengths of the study: The paper put forward an integrative interdisciplinary hypothesis that aims to reduce the descriptions of the various often contradictory observed phenomena to a single conceptual platform which is closest conceptually to neuroinformatics and does not pretend to directly explain the whole ASD phenomena in the conceptual "apparatus" and terminological discourse of particular scientific context of applied researches including: psychiatric, immunological, neurological, biochemical, social, cultural and similar studies of the problem of autism. In other words, the paper presents the framework approach model, focusing in unifying the former particular approaches to study the field of ASD. There is the consideration of the presenters that is the more detailed functioning of the mechanism of the Neuro-Landscapes Transfer (NLT) must be remain beyond the scope of the present work, because requires a separate study for a further observation and making a deeper research in the future.

Practical/Social value: The ASD model proposed allows explaining numerous phenomena, individual symptoms and social manifestations of autism within the single conceptual approach framework using a single conceptual description based on idea of neuro-landscapes that allows researchers to move to a not imaginary oriented, but more phenomenologically centered "common language" description in the general field of ASD.

Originality/Conclusions: According to the proposed model, ASD is caused by a deficit of a specific "mechanism" for transpersonal transferring of acquired "neuro-experience" which normally forms at an early age of the child's development and further uses the individual's access to the collective "neuro-experience" of the human population, determining the individual ability of mind and somatic field in optimally respond to environmental factors, regulate the mental and physical components of physiological processes in the body, organize cognition of the environment world, planning actions and communication with other individuals in society.

Keywords: ASD, autism spectrum disorder, autism, disease of the nervous system, mental illness, neurobiology, psychiatry, psychology, social behavior, social life.