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SCHIZOPHRENIA AS A DISORDER OF THE OBVIOUS: A CLINICAL HYPOTHESIS

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Modern views of schizophrenia that have evolved from E.Bleuler's and K.Schneider's concepts, along with continuous empirical explorations of the nature of the disorder (mental discordance (confusion mentale) by F. Chaslin, primary deficit of mental activity and hypotonia of consciousness (J. Berze, 1914), alogical thought disorder (K. Kleist, 1934), etc.), as well as recent neurobiological and genetic research have found no answer to the question whether all disorders of the schizophrenia spectrum are manifestations of the same genetic and clinical condition. In this respect, one may consider that efforts to find a clinical hypothesis capable of interpreting biological, epidemiological and psychopathological features of schizophrenia have not lost their perspective.

The proposed hypothesis states that a discrete subpopulation of people possesses a unique genetically determined 'transcendental' mode of reality cognition, related to expanding human knowledge by questioning the obvious reality. Because cognition is a main factor of cultural development, and culture is an important factor of human evolution, carriers of the transcendental mode of cognition may turn out to be a necessary part of the general human population owning 'evolutionary responsibility' for the transcendental capacity to obtain innovative knowledge. Schizophrenia is regarded as a pathological disturbance in the transcendental mode of cognition in which a pathological interpretation of the obvious is formed. In schizophrenia, the interpretation of reality is based on arguments disregarding the existing obvious. From this viewpoint, clinical and genetic features of schizophrenia are interpreted. The fact that schizophrenia bears a certain biologically meaningful sense is supported by its biological constancy of morbidity, which remains unchanged in all cultures and social circumstances – about 1% of the population. One might also think that the part of general population consisting of individuals genetically endowed with unusual reason is constant as well. Three clinical and psychotherapeutic cases of various disorders of the schizophrenia spectrum are provided in support of the hypothesis.

Key words: *schizophrenia spectrum, transcendental mode of cognition, cognitive disorder, mind, reason*

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ШИЗОФРЕНІЯ ЯК РОЗЛАД ОЧЕВИДНОСТІ: КЛІНІЧНА ГІПОТЕЗА

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Сучасний науковий погляд на шизофренію, що еволюціонував від концепцій Е. Бльойлера і К. Шнайдера до сучасних нейробіологічних і генетичних досліджень, не дає відповіді на запитання, чи усі розлади шизофренічного спектру є проявами одного генетичного та клінічного стану. Отже, спроби пошуку такої клінічної гіпотези, яка могла б інтерпретувати біологічні, епідеміологічні і психопатологічні особливості шизофренії, не втратили своєї актуальності.

Пропонована гіпотеза стверджує, що певна субпопуляція людей володіє здатністю до унікального генетично детермінованого – «трансценденталь-ного» – пізнання реальності, що має стосунок до розширення людських знань шляхом піддавання сумніву очевидної реальності. Оскільки пізнання є провідним фактором культурного розвитку, а культура – важливим чинником еволюції людини, носії трансцендентального модусу пізнання можуть виявитися необхідною частиною загальнолюдської популяції, на яку покладається «еволюційна відповідальність» за трансцендентальну здатність отримувати інноваційне знання. Шизофренія розглядається як патологічний розлад трансцендентального модусу пізнання, за якого формується патологічна інтерпретація очевидності. При шизофренії інтерпретація реальності базується на аргументах, що не беруть до уваги очевидне. З такої точки зору пояснено клінічні та генетичні особливості шизофренії. Про те, що шизофренія криє у собі певний біологічно значущий смисл, свідчить біологічна константність захворюваності нею, незмінна у всіх культурах і за всіх соціальних обставин – близько 1% населення. Є підстави вважати, що частка загальної популяції, яку становлять особи з генетично нестандартним розумом, є також сталою. Для ілюстрації гіпотези описано три клінічні та психотерапевтичні випадки різних розладів шизофренічного спектру.

Ключові слова: *шизофренічний спектр, трансцендентальний модус пізнання, когнітивний розлад, розум*

Schizophrenia was described by E. Bleuler (1908 – 1911) as a separate group of related mental disorders leading to inevitable and specific dementia in thinking and deformation of emotions and volitional regulation of behavior.

Schizophrenia manifestations comprise two series of clinical signs: productive, psychotic (delusions, hallucinations, disturbances of consciousness) and negative, deficient (thought and self-regulation disturbances).

According to E. Bleuler's concept (1911) [5], major manifestations of schizophrenia fit into the formula of 4A+D:

1. Autism – detachment from reality and closure in the subjective world of one's experience.
2. Associative loosening – deformation of logical thought operations up to disjointed speech; reliance on minor features of things in constructing statements; deviation from conventional logic.
3. Ambivalence – a peculiar 'volition paralysis' or inability to differentiate and select the dominant feeling out of two or more alternative ones.
4. Affective flattening – deformation of emotional reacting.
5. Depersonalization – alienation of feelings from one's self or splitting of ideation and emotions from self-perception.

The concept of E. Bleuler envisages wide interpretation of schizophrenia – from severe psychotic to 'mild' pseudoneurotic and clinically indistinct latent forms. Accordingly, this concept implicitly encompasses clinical conditions for unduly expanded diagnosis of schizophrenic disorders.

Starting from the 50s of the 20th century, there appeared a tendency towards a narrow interpretation of schizophrenia. Kurt Schneider (1938-1967) proposed to diagnose schizophrenia only in the presence of the so-called first-rank symptoms: a) auditory hallucinations (voices), commenting and dialog-like, and hearing thoughts spoken aloud; b) any experience of external influence or 'imposition' in the body, thoughts, emotions and volitional acts; c) delusional mood or delusional interpretation of real events or phenomena (Kurt Schneider, 1938) [17]. Thereafter, in the global psychiatric practice, particularly in classifications of mental disorders and illnesses (DSM, ICD) interpretation of schizophrenia as of a 'specific' psychosis became dominant.

Based on the narrow ('Schneider') understanding of schizophrenia as of a psychosis, major epidemiological and genealogical research was carried out. Results of this research can be summarized in two conclusions: 1) prevalence of schizophrenia in the general population is stable, ranging from 0.7% to 1.1%, which is close to 1%; 2) manifestations of schizophrenia "unfold" into the so-called spectrum of genetically related forms – from schizoid personality disorder, borderline and schizotypal variants to psychotic and so-called "malignant" ones [7, 8, 9, 15, 16].

In recent decades, the study of schizophrenia was focused on neurobiological and genetic research. Although specific markers are yet to be revealed, the most recent data indicate that genetic factors play an important role in pathogenesis (pathological pruning) of schizophrenic psychoses, and organic changes in these psychoses occur in the cerebral cortex (A. Sekar et al., 2016) [18].

However, the main problem of biological research is that the diversity of the described clinical manifestations of schizophrenia cannot be explained based on its results. More importantly, genetic determination of the origin of schizophrenic symptoms does not explain the peculiarities of non-psychotic forms of schizophrenic spectrum, especially those approaching the so-called "mild" part of the spectrum, consisting of individuals with schizotypal (i.e., precariously schizophrenic) and schizoid (non-schizophrenic) personality disorders.

Hence, three questions arise: 1) is genetic determination the same for all the manifestations of schizophrenia spectrum or only for ones of the psychotic segment? 2) Are there specific clinical features common to all variants of the schizophrenic spectrum, including its non-psychotic symptoms and schizoid personality? 3) If such features that are common for the entire spectrum exist, do they have a common genetic nature? In other words, can we find a biologic and specifically genetic "meaning" for a specific underlying mental phenomenon and its "failure" which are characteristic of all schizophrenic spectrum - from its most severe forms to clinically healthy schizoid personalities?

Attempts to find a central and even "pathognomonic" disorder in dementia praecox and schizophrenia were made before, and especially after E. Bleuler's time. Among these, the most famous are the following clinical hypotheses: mental discordance (confusion mentale by F. Chaslin, réédité en 1999) [6], primary deficit of mental activity and hypotonia of consciousness (J. Berze, 1914) [4], alogical thought disorder (K. Kleist, 1934) [13], intrapsychic ataxia (E. Stranski. 1953 [19], coenesthesia or disorder of integrity feeling (G. Huber, 1986) [10]. However, all the mentioned concepts concern the manifest forms of schizophrenia with obvious psychotic and negative symptoms. They offer no explanation for peculiarities of thought and behavior of individuals belonging to the 'milder' part of the schizophrenia spectrum, i.e., the ones without manifest negative symptoms, well-adapted and frequently high-functioning socially.

In this respect, one may consider that efforts to find a clinical hypothesis capable of interpreting biological, epidemiological and psychopathological features of schizophrenia have not lost their perspective.

The central hypothesis of the proposed concept of schizophrenia was first formulated almost identically in treatment of three patients in the course of long-term psychodynamic supportive therapies (from five to twelve years).

The first patient was undergoing treatment for schizotypal disorder with minimal medical treatment and regular psychotherapy; a naïve and romantic personality, self-sufficient, rather closed with excessive candor in emotionally significant situations. The patient was very selective in friendships and social life, and relationships were constructed on a sensitive basis. The inner feelings were characterized by low self-esteem. In late adolescence (19 years of age), while staying abroad, the patient experienced a psychotic episode which was quickly compensated after returning home. The patient's twin suffered from a severe case of schizophrenia. Long-term psychotherapy and treatment of this patient were successful with complete social adaptation at present time.

The second patient sought psychotherapeutic treatment owing to difficulties in social adjustment, which were manifested during the patient's studies for a second academic degree in another city. The patient's feelings of isolation and misunderstanding by other people were exacerbated. The therapy was carried out against a background of slow and imminent unfolding of a systematized delusion of persecution, with subsequent accession of threatening and commenting verbal hallucinations. The patient managed to compensate psychotic symptoms with pharmacotherapy and regular supportive psychotherapy for a relatively long period – up to ten years. At the same time, the patient was holding a highly skilled job, working even during relapses, and also managed to establish a family life. The level of reflection and ability to describe one's inner world were also very high. Exacerbation, i.e., shifting into the phase of a prolonged continuous psychosis, occurred after the birth of a baby in the family. Psychotherapy turned out to be impossible because of a marked negative transference towards the therapist.

The third person may be qualified as an adult with a distinct autistic disorder, presenting with an interesting and non-conventional inner world; original interpretation of reality; rather unusual manner of speaking; and high level of self-reflection. This person asked for psychodynamic therapy in order to understand her inner self. There were no complaints, or any grievances about her solitary 'contemplation of reality', locked in her own ideas. Formally this person was well-adjusted, working in her specialty after successful completion of higher education. This individual was taking no medication and felt no need for it.

All these individuals, who may be included in miscellaneous variants of the so-called schizophrenic spectrum, in the course of clarification and analysis of their experience at the age of three or four, described their attitude to reality almost identically: 'since early childhood, as far back as I can remember myself, I never really understood what was obvious, and things that other people believed to be obvious often made me feel doubtful and confused'.

The attitude to the obvious reality described by these patients became a starting point for the central hypothesis, which we formulate in the following way:

The basic cognitive disorder in schizophrenia is *a disturbance of interpretation of the obvious,* leading to inadequate recognition (perception and understanding) of reality. This basic disorder occurs as a result of a 'breakage' of the genetically determined *normal capacity* for systematic doubt in obvious facts and phenomena in a discrete subpopulation of people. We suggest defining this capacity as a *transcendental mode of cognition.* The biological 'sense' of such mode lies in the transcendental expanding of knowledge, i.e., the capacity for searching new, latent (hidden) natural laws which 'do not fit' with or contradict the existing experience about obvious reality.

The hypothesis we are conveying may be explored in more detail in the following steps:

1. Basic manifestation of schizophrenia is a specific cognitive disorder, the core symptom of which is a disturbance of interpretation of the obvious.

2. The disturbed interpretation of the obvious is a result of a 'failure' of a particular *genetically determined mode of reality cognition* in which the obvious is constantly questioned. We suggest referring to this mode as to a *transcendental* one, because cognition under such mode can be founded not only on facts of sensual (empirical) experience, but on hidden, latent meanings.

3. The transcendental mode of cognition may be related to *evolutionary biological need of humans for expanding their knowledge* by questioning the obvious reality. No venturing beyond the existing knowledge is possible without continuous doubts in the existing obvious. Because cognition is the main factor of cultural development, and culture (including technology and its impact on ecology), in its turn, is an important factor of human evolution, then carriers of the specific transcendental mode may turn out to be a necessary part of the *general human population owning 'evolutionary responsibility' for the transcendental capacity to obtain innovative knowledge.*

4. Thus, schizophrenia is regarded as a pathological disturbance in the transcendental mode of cognition in which a *pathological interpretation of the obvious* is formed.

5. Interpretation of the obvious is based on a capacity for formally logic operations with generally recognized facts of reality. Such capacity is formed in *adolescence*. Therefore, the onset of schizophrenia must be related to this age (13 to 16 years), though the symptoms may not be manifest until later (Kahlbaum K., 1878; Kraepelin E., 1916; Huber G., 1961 – 1987; A. Sekar et al., 2016) [11, 14, 10, 18].

6. Biological mechanisms of schizophrenia onset should be looked for in pathological processes of neuron systems damaging responsible for *maturation of the formally logical thinking (reasoning),* i.e., the hypothesis of Sekar et al. (2016) [18] about pathological synaptic pruning in the *C4A* gene mutation in the 6th chromosome.

Necessary explanations and comments on the hypothesis

I. Arguments in favour of clinical symptoms

No satisfactory definition of the obvious exists. The most widely used one is a simple description: the obvious is a generally accepted opinion, idea or impression that is not subjected to any doubt (in terms of common sense).

Shortcomings of this definition require an important specification: the obvious is an entity, perception of which is unquestionable in terms of the current and widely accepted complex of interpretations and understanding, i.e. common sense. Thus:

a) The obvious is a derivative of the socially determined consensus based on common sense;

b) The obvious expresses an entirety of paradigmatic beliefs concerning reality of the present moment (e.g., the obvious movement of the Sun around the Earth before Copernicus and vice versa – after him);

c) The obvious is one of the main (and frequently indisputable) arguments in solving the question of the real state of things (entities) where argument should be understood as proof based on agreement of all parties.

Basic assumption: if schizophrenia is a pathological disorder of the transcendental mode of cognition resulting in specific pathological interpretation of the obvious, then this assumption implies the following:

1. This disorder deprives of confidence and uniqueness (that is, forms distrust) concerning the widely accepted complex of interpretations and understanding of the perceived things of every kind. In other words, in schizophrenia, the interpretation of reality is based on arguments disregarding the existing obvious.

2. A person with such disorder 'does not fit' in the socially determined common sense, that is, feels they do not belong with the existing social obvious.

3. The disorder results in formation of one's own interpretations and one's own understanding of the perceived reality, and, accordingly, the subjective argumentation which is not generally and objectively consistent, i.e., is not based on common sense.

4. Interpretations and understanding of reality lose the character of the obvious and are based on subjective latent senses.

5. The marked and constant distrust towards the obvious – in the absence of one's own subjective argumentation (the individual has not yet had time to elaborate any) results in confusion, doubt and loss of control over oneself according to the reality demands, which is called the *delusional mood*.

6. If the disorder of the obvious leads to maximal distrust towards reality and, as a result, perception disturbances develop, they are interpreted as subjectively obvious, and, therefore, are *not corrected by reality*.

7. Situations requiring maximal social adjustment to the generally accepted rules of reality – and these include all critical situations that strengthen doubts and distrust towards the obvious – provoke the increase of anxiety, fear and confusion;

8. Social adjustment in such critical situations most likely happens through elaboration of *two subjective interpretative viewpoints, uncorrectable by reality*:

— The social environment is either hostile, unaccepting, isolating or annihilating me for being different and not belonging to it;

— Or it (the social environment) gives me a special status;

9. The two mentioned interpretations in their unity are a *foundation of any delusion*;

10. Therefore, any delusion contains both viewpoints: hostility towards the environment and a special status for it;

11. Delusion blocks any arguments regarding obvious facts of reality and develops similarly to a vicious circle: from distrust towards the obvious – through delusion – to denial of the obvious.

12. Anomaly and modification (flattening) is a reaction to another obvious situation and the process of attribution of extraordinary meaning to events that are ordinary in terms of common sense. Accordingly, such a reaction may be fully 'adequate' in the pathological coordinate system of the disturbed obvious, and look inadequate to an outside observer.

13. Ambivalence (the conflict of motives) is impossible to solve in the lack of obvious arguments for processing or reconciling of varied desires.

14. Equally, the deficit of the voluntary /volitional function is a result of the difficulty in formulating a realistic life strategy, the basis of which is adequate evaluation of the obvious reality. Needs and goals without a feeling of their obviousness for the person lose their motivational power. Clinically we observe this deficit as abulia.

I. 'Metaphysical' arguments

Which mental disturbances (omitting the independent neurophysiological aspects of the problem) may be responsible for 'the disorder of the obvious'? To answer this, a brief excursion into the problem is necessary.

A. Admitting of the obvious and recognition of the reality are based on the capacity for formally logical reasoning. This capacity is performed by the reason or the ability to think based on sensual experience and its presentation in notions. Instead, the mind is responsible for cognition based on ideas (imagination).

B. The disorder of the obvious that is based on the disturbance of the reason's interpretation of the sensual experience is a disturbance in using the formal rules of reasoning, *but not of imagination and ability to have ideas*. This could mean that in a specific schizophrenic disorder of the obvious ***the mind***, as the ability to have imagination and provide ideas, ***remains intact***.

C. The so-called transcendental mode of cognition, based on systematic doubt in the obvious and responsible for the 'otherness' of interpretations of reality can assist in finding non-obvious arguments in the paradigm of reality existing in a given culture. This mode may turn out to be an *evolutionally necessary mechanism for cognition development* – concerning a search for unusual and novel paradigmatic solutions.

D. On the other hand, the disorder of the obvious in schizophrenia lies in *formation of such 'other' concepts that are not based on socially agreed arguments and connotations, i.e., are inconsistent with the existing notions of reality.*

E. If we consider schizophrenia as part of a single genetic spectrum, this disease may turn out to be a mandatory degenerative 'due', and extreme variation of the range in which borderline schizophrenic states are the transitional forms, and the other pole is the part of population consisting of heathy individuals *endowed with unusual reason and a unique capacity for the transcendental mode of reasoning.*

F. The fact that schizophrenia bears a certain biologically meaningful sense is supported by its *biological constancy of morbidity*, which remains unchanged in all cultures and social circumstances – about 1% of the population. One might also think that ***the part of general population consisting of individuals genetically endowed with unusual reason is constant as well***. .

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