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From the history of Polish psychiatry: paragnomen

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Summary

We present the case of a 27-year-old male patient who – without any apparent reason – jumped out of the window located at the 7th floor of the building, which resulted in severe injuries of internal organs. That shocking and inexplicable event became the reason of many hospitalizations. He was hospitalized in the intensive care and rehabilitation units for months. He denied any suicidal ideation and was unable to give any reasonable justification for his jump. He was diagnosed with moderate depression and he was treated with antidepressants. Subsequently, psychotic symptoms appeared and he was hospitalized in psychiatric wards, where the diagnosis of schizophrenia was taken into account. He received antipsychotic treatment. At discharge, acute polymorphic disorder similar to schizophrenia was diagnosed. That act appears as "action against expectation" (actio praeter expectationem) – paragnomen – a concept announced by the Polish psychiatrist, Eugeniusz Brzezicki, in the 1950s. This case illustrates that an unfounded, unjustified by any meaningful reason and sudden event which led to several severe body injuries might be considered as a sign of the psychotic disorder development but does not have to necessarily result in the diagnosis of schizophrenia, as suggested by Eugeniusz Brzezicki, who was the author of the term 'paragnomen'.

Key words: schizophrenia, psychotic disorders

Introduction

Even the deepest knowledge of psychopathology does not always help to understand the behaviour of people with mental disorders. This is particularly true for schizophrenic patients, whose behavior is seen as irrational, unpredictable and sometimes threatening. Hence, this illness is often considered incomprehensible and this is, in addition to many other reasons, also the cause of stigmatization of people with mental disorders.

During clinical practice we often encounter patients whose behaviour is seemingly inexplicable, unreasonable, and completely detached from reality. Most often, we interpret this behaviour as weirdness, ambivalence, ambitendency or generally as a sign of disintegration of personality structure. Especially encountering the dramatic circum-

stances of such a behaviour, we usually try to find a somewhat reasonable explanation, but often these attempts fail. The only explanation is that such an incomprehensible behaviour remains within the framework of psychosis. However, it is worth reminding that the term "paragnomen", once introduced into the psychiatric nomenclature, is the original contribution of the Polish psychiatric thought in the psychopathology of schizophrenia. Nevertheless, "paragnomen" is quite an isolated term – while preparing this material, we searched the database of PuBMed and under the entry word "paragnomen" we found only 4 items of literature, all in Polish.

The creator of the term "paragnomen" is a Polish psychiatrist, who was a longtime head of the Psychiatric Department of the Medical Academy in Cracow, Professor Eugeniusz Brzezicki. He addressed this issue because of the presence of "cases beginning with some unexpected psychological outburst or such behaviour that draws the attention of the environment to the patient" [1, p. 670]. The original definition describes paragnomen as: "thoughts or behaviour contrary to the expectations, encountered among patients with still-preserved mental and general intrapsychic activity" [2, p. 117].

He believed that at the onset of schizophrenia, a psychasthenic insufficiency (lack of motivation and mental concentration with memory impairment and vegetative symptoms – original nomenclature) is observed. However, "psychasthenia sometimes transforms into schizophrenia" [1, p. 670]. In course of this "pseudopsychasthenia", one can encounter something that can be called "a sthenic thorn that is continually revealed, pops up and astonishes the entire environment" [1, p. 670]. Brzezicki claimed that such behaviour can only be differentiated from "emotional impulses" (according to Morselli [1, p. 673]), where – however – distinct features of a strong affect are present. A distinction from the fugue accompanied by a forbidden act should also be made, but in this case, elements of an impairment of consciousness can be found. In the case of an act classified as a paragnomen, neither the affective component nor the impairment of consciousness is present. This is the basis for distinguishing this occurrence as a separate phenomenon. Brzezicki decided to distinguish paragnomen from the bizarre behaviour of schizophrenic patients (Bleuler's *schizophrenischer Einfall*) because the bizarreness is justified in other symptoms such as ambivalence, delusions, and hallucinations.

Brzezicki's assumption that paragnomen has a biological basis is interesting, although in the light of current knowledge extremely poorly documented, because many people whose behaviour can be defined in this way have sooner or later presented the features of endocrine disorders. Brzezicki went on to suggest that schizophrenia (as it is associated with paragnomen) is "apparently also a hormonal-vegetative-mixed disorder" [1, p. 677]. In an attempt to explain the pathogenesis of paragnomen, Brzezicki took into account two of its aspects: metaphysical (subconscious, instinctive impulse) and pathophysiological. The explanation of the second aspect is much more complicated, as Brzezicki referred to Pavlov's doctrine, widely prevailing at that time: the mechanism of paragnomen is of a phasic state and a strong stimulation of one image induces the opposite effect. Thus, it creates an ultraparadoxical phase as a positive stimulus produces an unexpected, reversed and distorted response.

It must be understood that in the days when Brzezicki published his thoughts on paragnomen, Pavlov's doctrine was in force, which nowadays does not prove to be reliable, at least in regard to the pathogenesis of schizophrenia. Therefore, it is necessary to keep in perspective those parts of the text where Brzezicki regrets that "instruments that analyse the pathophysiological mechanisms of higher nerve functions cannot be used for testing the condition that corresponds to *actio praeter expectationem*" [1, p. 678].

Below we present the description of a case that seems to be in line with the discussion about what the paragnomen is and what the relationship is between this phenomenon and other mental disorders.

Case study

The patient, a 27-year-old male, a college graduate, single, lives with his sister, also has a twin brother. Both parents are deceased, the father died of a heart attack and the mother died of lung cancer. His mother's brother was treated for schizophrenia and had died the previous winter; according to the patient, his sister who he lives with is mentally ill, but he does not know the diagnosis. The patient was not seriously ill in childhood. During his studies, he was working as a representative of a foreign construction company in Poland. He received his Master's degree in Civil Engineering.

A year ago he jumped from the balcony of his apartment on the 7th floor in strange circumstances. The accident caused a serious injury of multiple organs, concussion, and fracture of the lower limbs. In the computed tomography of the whole body (trauma scan) he had at that time, there was no evidence of bleeding into the brain or of skull fracture. He spent about six months in various hospital units – first in the intensive care unit, afterwards in the rehabilitation ward. Due to the patient's impairment of memory that appeared after the injury, it was difficult to obtain accurate and fully reliable information about his mental state before the accident, although he did not confirm the presence of suicidal thoughts, or symptoms suggesting psychosis. Until the accident he was working, performed his duties well, and had good relations with others. According to the patient's friends, he neither had a decreased mood nor was he apathetic, at most, he was observed to be a little tense and irritable. For several years before the accident, the patient had smoked marijuana, in quantities of "a few joints a day". He denied alcohol abuse and using psychoactive substances other than THC. There are no tests for the presence of drugs or alcohol in the blood included in the intensive care unit discharge card.

The first contact with a psychiatrist took place during the hospitalization in the ICU and escitalopram was started along with risperidone 2 mg/d (without any note included in the patient's documents as to why the latter drug was given). Neither risperidone nor any other antipsychotic drug was prescribed and recommended in discharge indications. After discharge from the hospital, the patient was under the care of the psychiatric outpatient clinic and was treated with sertraline, but due to the reported side effects the medication was changed to moclobemide. The reason for prescribing this drug is not presented because of no access to documents.

Three months after hospitalization and nine after the accident, the patient revised his earlier prepared master's thesis and defended the thesis with a good grade. He planned to take up a job, but the increased number of duties caused tension. He called the ambulance because of anxiety, worsening of sleep for several days, persistent thoughts about last year's accident, as well as suicidal thoughts. Initially, he wanted to put himself into a mental state similar to that of the previous year; he inadequately talked about "contemplating that event" and stared at the left side of the balcony where he had jumped from. He reported a pressure of thoughts and wrote them down (describing it as a 'stream of consciousness') – to understand the reason for the jump. He was hospitalized in the psychiatric intensive care unit. He revealed delusions of thought insertion (receiving the thoughts of other people) and had a depressed mood, but he did not affirm suicidal thoughts. He claimed that since the accident, he maintained total abstinence from psychoactive substances. After five days, when his mood and sleep improved, he asked for a discharge from the unit – a diagnosis of moderate depressive episode was given.

After three weeks, he voluntarily checked himself into a hospital admission room because of intrusive suicidal thoughts and thoughts about killing his twin brother, which he explained in a paralogical and bizarre way: "if I do not kill him, I'm going to be a hermaphrodite". He uttered delusions about the integrity of his organs and feared the disappearance of his genitals: "proctoptosis" and "absorption of the penis" – then he would "become a hermaphrodite". He thought the reason may be his brother's homosexual orientation and to prevent all that he needs to kill his brother. He reported derealizations: he saw people in the park "different than they really were". He was admitted to the psychiatric intensive care unit, where the psychiatric and psychological diagnostics and CNS imaging were performed; he was also consulted with a neurologist. In the single-phase CT scan a small malacic focus in the left temporal lobe was revealed; other brain structures were without focal lesions. The EEG tracing showed slight features of abnormalities in the left temporal area in the form of theta waves. The neurologist suggested the EEG to be repeated after three months and a MRI brain scan to be performed afterwards. The results of psychological testing showed that the patient's intellectual level at that time was average, presumably lower in comparison to his potential before the accident. In casual conversation the features of formal thought disorders were visible; his speech was excessively abstract and difficult to understand; his explanation of phenomena was paralogical, e.g. he saw a difference between him and other patients illogically: "no one is his or her own diagnostician – when a patient is telling me about elephants, I'm taking it personally". As an example of intruding thoughts, he related that he had "bad, dangerous thoughts about the surroundings" – for e.g. "chairs in the canteen are upside down on the table. Why? Just because the medical orderly or someone put them like that". While interpreting reality, he referred the behaviour of other people to himself (delusions of reference). He expressed fear of losing control over himself in the sphere of cognition and the control of impulses. Despite explaining to the patient the necessity of change in the pharmacological treatment and the need of further observation of his mental condition (vague psychopathological picture), he asked for the discharge again. A diagnosis of acute psychotic disorder similar to schizophrenia was placed.

The day after the discharge, he returned to the admission room and complained that "he was afraid of thoughts that were unreal", and that he felt discomfort while staying in his apartment. He was admitted to the open (general) psychiatric ward for observation for any signs of paranoid schizophrenia. Assessed by SCI-PANSS (Structured Clinical Interview for Positive and Negative Symptom Scale), he revealed delusions of reference and delusions of thought broadcasting in an ambivalent way. Despite an ambivalent approach to treatment, the patient declared his willingness to follow medical advice. Modification of pharmacological treatment was made, and quetiapine SR was initiated and gradually increased to 750 mg/d. Improvement of his mental state was observed– he denied delusions and hallucinations, had good insight into his earlier symptoms, and was in good verbal contact. The premises were not sufficient to diagnose paranoid schizophrenia. The patient was diagnosed with an acute polymorphic psychotic disorder with symptoms of schizophrenia.

Conclusions

We presented this case to draw attention to a sudden, unexpected event that basically initiated a diagnostic process and a number of the patient's hospitalizations. We do not find any motivation or justification for such a threatening behaviour. It must be admitted that there is a difficulty in assessing all the circumstances before the jump – due to patient's memory impairment, he is unable to recall the period of the trauma. Thus, the information comes mainly from the family and other close individuals. Nevertheless, it is known that the patient did not receive any psychological or medical assistance, including psychiatric, before the injury. Suspicions could be aroused about using THC or other psychoactive substances, the impact of which could lead to life-threatening actions or psychotic symptoms, but the information is insufficient to confirm this possibility. Referring to the organic changes in the brain after the injury – as a possible reason for the psychotic process – the small malacic focus in the left temporal lobe described in the CT and the poorly expressed features of abnormalities in the EEG are not sufficient to explain the symptoms.

In his publications, Brzezicki provided the following examples of the poignant, sometimes dramatic behaviour that illustrates the paragnomen:

- unprovoked kicking out an exhibition window by a 15-year-old girl,
- a sudden breaking up of a long friendship by a 24-year-old woman, who also runs up to the friend, slaps her face without a word and leaves smiling,
- an attempt to throw a 7-year-old sister out of the window by a 22-year-old student, who staring out of the window called out to a friend, who was passing by, and the friend did not respond to that call,
- jumping into a well by a 20-year-old pregnant farmer's wife, who decided to draw water with her hands instead of lifting a bucket from the well with the use of a winch.

Although the examples of paragnomen occurrence are usually very dramatic (probably to justify the distinctiveness of this phenomenon), Brzezicki himself notes

that paragnomen is usually a relatively trivial activity, such as an escape from home, a quarrel, violent or aggressive behaviour, and irritability, but it is "always unrelated adequately to emotions" [2, p. 675]. It should be noted that Brzezicki clearly associates the phenomenon of paragnomen with schizophrenia. This is confirmed by his early publications [3,1].

On the other hand, Biela and Sklepińska seem to be of a different opinion as 20 years ago they published a case of a young man with a sudden, unjustified by circumstances behaviour that they called paragnomen [4]. This patient unexpectedly attacked his friend in the forest: he was beating her, strangling, kicking. He left her in the forest with many injuries and then went home, ate dinner and laid down to sleep. He denied the attack was of a sexual background, although he admitted that he found the girl attractive. The authors did not report a mental illness or mental retardation in the man; however, they diagnosed him with an immature personality with schizoid traits. They acknowledged that the essence of the patient's behaviour was "the transformation of not fully conscious erotic feelings of an immature and schizoid personality into the acts of uncontrolled aggression" [4, p. 359]. As the patient underwent forensic and psychiatric examinations, the expert witnesses stated a slightly limited ability to understand the meaning of the act with a fairly limited capacity to control his behaviour. It was declared that the patient did not pose a serious danger to the social order, provided he was placed under psychiatric and psychological care.

Taking into account the opinion of the creator of the notion of 'paragnomen', the described case does not completely correspond to this definition as it has no direct connection to schizophrenia. However, Biela and Sklepińska recognized a schizoid personality in their patient, which remains more or less within the spectrum of schizophrenia symptomatology.

According to Wciórka [5], the clinical relevance of paragnomen is mainly the role of an indicator considered as the first symptom of the onset of psychosis. It can be perceived as delusional behaviour, if later it is given delusional interpretation. Thus, the author does not speak directly about the relationship between paragnomen and schizophrenia. Jarema [6] places paragnomen in the lexicon of schizophrenia, although he does not write directly about the relation of this phenomenon to the mentioned illness. He emphasizes, however, that since paragnomen is a sudden, incomprehensible behaviour, not arising from any logical circumstances and is threatening, it can be generally recognized as a sign of "mental illness" [6, p. 93].

Finally, the described patient in the present article was ultimately not diagnosed with schizophrenia. Although he did not meet all the criteria for schizophrenia, we do not rule out the possibility of recognizing the patient's behaviour (initiating a cascade of mental disorders) as a paragnomen. Taking into consideration the patient's final diagnosis – different than schizophrenia, we contribute it to the discussion whether such a phenomenon as "paragnomen" unequivocally determines a diagnosis of this illness.

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