

## **Etioepigenesis – the 1947 attempt at multiaxial psychiatric classification**

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*One of the two earliest attempts at multiaxial psychiatric classification was developed in 1947. It was based on the theory of hierarchical stratification of (presumed) etiological factors, on acknowledgement of the importance of genetic predispositions manifesting themselves in the form of personality traits as well as of biological susceptibilities, and on observation of clinical syndromes. A brief presentation of the theory itself is preceded by an outline of the professional career of T. Bilikiewicz, the author of the nosology.*

*Key words:* etioepigenesis, psychiatric classification

Tadeusz Bilikiewicz is the author of the multiaxial diagnostic system in psychiatry, ranked as the second earliest by Mezzich [1]. The honourable first place went to Essen-Möller and Wohlfahrt who proposed “a pioneering bi-axial schema” in a brief paper published in 1947 [2].

However, the 1951, detailed (67 pages), monographic article by Bilikiewicz [3], to which Mezzich refers, was only a printed version of the presentation he gave earlier to the participants of the 22nd Congress of Polish Psychiatrists, held in 1949. But even then, it was not the first time his theory was presented.

As early as in 1947, Bilikiewicz published a paper on the concept of the new psychiatric classification and the theoretical basis underlying it [4]. Earlier the same year, the author read this 15 pages long article at the 21st Congress of Polish Psychiatrists. Its literal translation into English appeared simultaneously in Switzerland and USA in 1948 [5].

The 1947 paper (and its English translation) contains a fully developed theory, already in its mature form. Publications that followed were expanded on and improved, but the basic, original idea remained unchanged. It is only fair, therefore, to conclude that the first two attempts at multiaxial psychiatric classification were developed simultaneously, albeit independently, in Sweden and Poland.

### The Man

Who was this clinician, researcher, teacher and philosopher? Who was the man, who only two years after the end of a devastating war came out with an idea, revolutionary then, yet mature, that was to influence psychiatry in his country for decades to come. Who was the author of the theory that was met with acknowledgement and appreciation in academic centres abroad?

Tadeusz Bilikiewicz (1901–1980; biographical information mainly from [6] and [7]) was raised amidst fresh currents blowing through the newly emerging class of bourgeoisie in the eastern outskirts of the Habsburg Empire (Poland was still partitioned then). He received a good, so called classical, education that endowed him with appreciation of Greek and Latin and, what is more important, made him fall in love with philosophy. Seeking a sound basis for the latter in natural sciences, Bilikiewicz entered a medical school, from which he graduated in 1925.

Badly in need of treatment for his failing health (he suffered wounds during the battles for the country's independence at the end of the First World War), the young doctor left for Switzerland. There, in the years 1926–28, having read anti-phenomenological works of Österreicher, already well acquainted with Brentano's epistemological realism and, later, having volunteered at the famous *Bürgholzi Klinik*, Bilikiewicz developed a firm interest in clinical psychology and psychiatry to which he remained faithful till the end of his productive life.

Personal contacts with Maier, Lutz (later a famous child psychiatrist) and, particularly, with retiring then Eugene Bleuler must have induced a sincere enthusiasm for clinical work in Bilikiewicz. The Department of Psychiatry at the University of Zurich, the site of *Bürgholzi*, offered him a position at the end of his four-month stay there. And it was the place to which psychiatrists were making pilgrimages not only from all over Europe.

However, Dr. Bilikiewicz did not embrace this seemingly golden professional opportunity. He returned to Poland, having already one book published, at the age of twenty-seven. Three years later he presented a thesis on history of medicine, based on his work in Germany, qualifying for a position equivalent to today's assistant professor. Shortly afterwards, he obtained a PhD degree in philosophy. Then he received a title of a *docent* (equivalent of an associate professor today) at the university's Faculty of Medicine in Kraków and, eight days later, a position of a tenured professor at the Faculty of Medicine at the University of Vilna. And he was only thirty then.

In the meantime, as a holder of the Rockefeller Scholarship, he researched in France and continued publishing. It was there, in Paris, that Bilikiewicz first started developing some general concepts on what was later to become his nosological system in psychiatry.

Several years before and during the Second World War saw him in a large psychiatric hospital in Kocborowo (northern Poland), where he was a psychiatrist-in-chief, still fulfilling (until the war broke out) his academic responsibilities. The years after the war Bilikiewicz devoted to relentless work on his psychiatric nosology, to clinical and didactic duties, to administrative occupation as a Chair of the Department of

Psychiatry at the Medical Academy in Gdańsk, and to research. Among his numerous publications a basic textbook on clinical psychiatry (expounding the author's nosology) stands out. Several editions of this work were met, perhaps not surprisingly, with both admiration and criticism. Bilikiewicz was a member of the French *Societe Medico-Psychologique*, the German Deutschen Akademie der Naturforscher Leopoldina and the pre-war Polish Academy of Sciences.

Later in the career, faithful to his philosophical interests and looking for a common ground for psychology and information science, Bilikiewicz speculated on a unitary character of consciousness and memory, developing a theory of "mnomosyneidesis" [8]. Considering the modest level of our understanding of these phenomena, it was only to be expected that this theory would not gain a significant following, mostly due to its lack of immediate practical implications.

Bilikiewicz lived a productive life, anxious not to waste even a moment. It was said he would sleep no more than five hours and greet every day at dawn, walking his dog through the empty streets of his still sleeping city. The rumour had it even that Professor's devotion to work took a heavy toll on his family life. For to him, the most important thing was work. And his work was the theory of etioepigenesis.

### The Theory

The title of the original 1947-paper [4] translated into English [5] reads: "Etioepigenetism or hierarchical epigenesis of etiological layers in psychiatry." It defines the framework of the diagnostic classification developed by Bilikiewicz. In the article, he described the three clinical aspects (as noted by Mezzich), on which the classification stands: a psychiatric syndrome, personality condition and etiopathological formulation.

The most important notion that can assist one in better understanding of the author's thinking is that of "stratification of diseases". Pathological syndromes of symptoms appear in layers. The more superficial ones are of episodic character, whereas deeper strata are fundamental. "The fundamental stratum must temporarily precede the [more superficial] layer disease, it is therefore hierarchically older." Thus, the removal of the fundamental stratum (e.g., chronic alcoholism) would be likely to result in the absence of the secondary layer (e.g., delirium tremens).

Bilikiewicz made sure we did not misinterpret the secondary layers as simply symptoms of the fundamental disease (stratum). He emphasised that the superimposed syndromes have their own etiological basis, and can disappear independently, not requiring the disappearance of the fundamental, etioepigenetically primary disease. It did not mean that these two conditions merely coexisted! The notion of stratification stemmed from the acknowledgement that there exists a localising connection between the two conditions, or, rather, between their pathomechanisms. It was also based on the recognition of the dependence of the susceptibilities to particular etiological factors, rather than interdependence of the aetiologies themselves. The primary condition would make the organism particularly prone to be affected by the aetiology triggering the secondary disorder (much like our present understanding of predisposing factors).

However, the primary condition itself would not be considered an etiological factor of the secondary, superimposed syndrome. Both conditions would still have separate, independent aetiologies. Every factor, either of psychological or biological nature, could be etiological. Emotional stressors were as important as infections or genetic make up.

In his article of 1947, Bilikiewicz maintained that “psychic [diseases] are developing on a basis of constitution, on the basis of heredity, ... on the basis of the disease of the genes” (of what we are only too aware today, fifty years later). Therefore, he considered the constitutional disposition to be hierarchically the oldest etiological stratum. However, while emphasising the hierarchical order in the nosological stratification, Bilikiewicz was quick to point that it does not appear “with iron necessity of ... preformationism,” as would be the case if the layers were stemming from one and the same aetiology. Rather, the layers arise “by way of epigenesis,” where each of them may have its own etiological factor in the form of a “new, unforeseen condition not resulting from the ontogenetic development...”. In other words, biological predispositions and exogenous factors were not to mutually exclude one another but rather to form independent streams, allowing for more than one diagnostic axis: “layers ... might be more than two”.

Thus, every mental disorder would be stratified into the following three axes: I – a constitutional predisposition; II – a disease with its own specific aetiology (presumably biological, usually unknown); III – a clinical syndrome, triggered by one or more of psychosocial or biological factors.

In the 1951 account of his theory [3], Bilikiewicz underscored the futility of all attempts to base a psychiatric nosology on purely etiological, neuro-anatomo-pathological, or psychological criteria only. He stated firmly that they always had to be considered with recognisable, symptomatic clinical pictures (syndromes) constituting the basis of such nosography. A review of the elements forming the three strata referred to the results of research by Penfield, Horanyi, Freeman, and Watts. Nineteen clinical cases illustrated his theory, and a detailed table presented etioepigenetic nosology in a graphic form.

The first, constitutional axis was divided into seven groups: 1. Schizotypia; 2. Epileptotypia; 3. Cyclotypia; 4. Hysterotypia; 5. Neuro- and Psychopathies (mainly personality disorders); 6. Other organic and psychological traumas to central nervous system; 7. Huntington’s Chorea. The two last groups belong to both axis I and II.

The second layer (axis), that of organic disorders, was divided into thirteen groups: 1. Oligophrenia; 2. Brain traumas and post-traumatic states; 3. Pre-senile and senile disorders; 4. Organic brain syndromes; 5. Infections (hormonal and allergic disorders were included here); 6. Other organic and psychological traumas to central nervous system; 7. Syphilis; 8. Certain forms of encephalopathy (including Parkinson’s disease); 9. Huntington’s Chorea; 10. Intoxications (biological consequences of substance abuse and addiction were included here); 11. Epilepsy; 12, Schizophrenia; 13. Cyclophrenia.

The most superficial, third layer, consisted of eight groups of episodic syndromes:

1. Schizophrenoid syndromes (paranoid, catatonic, hebephrenic, paraphrenic, and paranoia); 2. Delirium; 3. Obnubilation; 4. Depressive syndrome; 5. Manic syndrome; 6. Amentive (confusional) syndromes; 7. Hysterical (conversive and dissociative) syndromes; 8. Reactive syndromes, in the form of psychoses and neuroses (equivalent to anxiety, adjustment, somatoform, brief reactive, and the like, syndromes).

The crucial feature of this nosography is its flexibility, allowing for different episodic and organic syndromes to be found superimposed on older layers to which they are not specific. Essentially any combination of conditions from the three strata, from the hierarchically oldest stratum (axis I) to the most episodic one (axis III) is possible. This reflects the abundance of clinical presentations in psychiatry.

Paradoxically, praxis was the strength of the theory from the moment of its very conception. By means of, say, ECT, it is possible – wrote Bilikiewicz in the 1947 paper, supporting his claim with the evidence from a direct clinical observation – to “remove certain layers ..., a stratified superstructure which is of peculiar etiological derivation . . . fit for shock treatment.” There remains however, he argued, “always the bottom of a deeper layer,” grossly organic (as in dementia) or otherwise biological (as in the case of schizophrenia, “doubtless associated with the illness of the genes”). This deeper layer may appear without secondary, acute syndromes, as is frequently the case.

In the etioepigenetic description of a manic-depressive psychosis (as it was called then), the deepest layer (axis I) is a constitutional factor associated with genes. The second layer (axis II) is cyclothymia (understood unlike today): a bipolar disorder, constituting proneness to mood-related pathology. And the third, most superficial layer (axis III) is a “psychotic phase,” which would be called a manic or depressive episode today. This mania or depression was, therefore, considered to be a “psychological expression [stratum III] of the neurophysiological disorder [stratum III] too much grown together with the constitutional layer [stratum I] to be removed.”

With regard to “the real schizophrenia”, Bilikiewicz’s etioepigenesis subdivided this disorder into three axes: I – the hereditary, constitutional one; II – the proper schizophrenic layer (with aetiology specific to this, and only this, disease); and III – “the unnecessary, often episodic layer”, which we would describe nowadays as an acute, psychotic syndrome.

The author was aware that, in the light of the contemporary knowledge, only the third layer, that of an acute psychosis was accessible to treatment which, therefore, could never be a cure, always leaving certain “defects.” Though it remains true to a large extent even today, the way etioepigenesis looked upon schizophrenia gave reasons to most of the criticism levelled at the theory, especially more recently, when new developments in psychiatry raised therapeutic hopes, and new diagnostic criteria effected dramatic sometimes changes of epidemiological data.

The theory reached its zenith in the early 70’s when it was presented in the most complete graphic form in a sumptuous publication [9] by Leopoldinum – an academy of sciences widely recognised in German speaking countries, albeit with its influence hindered by cold war politics. Gradually, however, as a result of the expanding contacts with the West, its ideas, including those regarding psychiatry, became known, and then popular in Eastern Europe. The new research results, and the need for an efficient

communication tool, resulted in unification of psychiatric classifications.

The theory of hierarchical etioepigenesis in psychiatry is mainly of historical significance now. But, for several decades, it served clinicians as a guide in understanding psychopathology in all its complexity, a factor conducive to multidisciplinary approach to diagnosing, prophylactics and treatment of mental disorders.

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