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One hundred years of limited impact of Jaspers's *General Psychopathology* on US psychiatry

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Abstract:

Jaspers, a German psychiatrist, published *General Psychopathology* in 1913. Jaspers, Schneider and Mayer-Gross were members of the Heidelberg school. *General Psychopathology*, indirectly through Schneider and Mayer-Gross's textbooks and directly by its English translation in 1963, led to a narrow set of schizophrenia criteria in the United Kingdom (UK). *General Psychopathology* had very limited direct impact on US psychiatry, which adopted a broader schizophrenia definition. The difference between UK and US schizophrenia was a key element in the *DSM-III* and the neo-Kraepelinian revolution. *General Psychopathology* contains two essential interrelated ideas: 1) psychiatry is a hybrid scientific discipline that must combine natural and social science methods that, respectively, provide an explanation of illness that follows the medical model and an understanding of psychiatric abnormalities that are variations of human living; and 2) psychiatric disorders are heterogeneous. Berrios's ideas on the hybridity of psychiatry in the UK and McHugh's ideas on psychiatric diagnoses in the US can be considered neo-Jasperian approaches, since they further elaborate these two Jasperian concepts in the late 20th century.

Key words: Diagnostic and Statistical Manual of Mental Disorders; history, 20th century; history, 21st century; mental disorders; psychiatry; United States

In 1913, Karl Jaspers, a 30-year-old psychiatrist at Heidelberg University published the first edition of a book called *General Psychopathology* (Jaspers, 1913a). For the current reader to understand the remarkable accomplishment of Jaspers and his powerful mind, he/she would need to ask a current psychiatry resident to write a book summarizing psychiatric knowledge, including the methodological and scientific aspects of psychiatry (Berrios, 2013). Labeling Jaspers a resident is obviously not historically correct since there were no psychiatry residents at that time, but it is not far from the truth since he was a psychiatry trainee. In 1906, Jaspers was a medical student. He moved to Heidelberg after his physician recommended it. Jaspers had been diagnosed with bronchiectasis at a time where antibiotics were not available; thus he was not expected to live much longer than his early 30s. His physician recommended “a rigid and restricted working routine that was intended to prolong his life” (Kirkbright, 2004). In 1908, after his medical licensing exam, Jaspers took an unpaid job as a trainee in the outpatient clinic. There he worked with the psychiatry chairman Franz Nissl (a world-renowned neuropathologist who had been the chairman since 1904 when Kraepelin moved to Munich) on his dissertation in forensic psychiatry, which led to Jaspers’ formal appointment in July 1909 (Janzarik, 1998). At that time, the clinic at Heidelberg was an exciting place with many brilliant psychiatrists, including William Mayer-Gross. Jaspers was fortunate to have the support of his wealthy family and was released from clinical duties but had free access to patients, the library and scientific discussions. During 1911 and 1912, Jaspers developed the ideas and themes that led to *General Psychopathology* (Janzarik, 1998). An article comparison between delusions in schizophrenia and jealousy (Jaspers 1913b; 2007) led to the key concepts of *explaining* and *understanding* that were incorporated in *General Psychopathology*. In this book, Jaspers combined the clinical information known at that time with his personal ideas derived from some philosophical thinkers (mainly Kant and Dilthey) (Berrios, 2013).

Jaspers thought that the discipline of psychiatry “was crying out for a systematic clarification of current thinking” (Kirkbright, 2004). He used *General Psychopathology* as a professorial thesis in psychology, thus allowing him to migrate toward teaching psychology. Later, he became a professor and

an internationally known philosopher and abandoned psychiatric practice completely (Kirkbright, 2004). As a matter of fact, in 1916 a chairman was needed at Heidelberg and Jaspers was asked; he declined because he thought he might not be able to handle the physical exertion (Janzarik, 1998).

In 1921, a young psychiatrist, Kurt Schneider, who was working on his philosophical dissertation, wrote Jaspers, asking his permission to dedicate his dissertation to him. In 1922, Jaspers was no longer in direct contact with psychiatry and was writing the third edition of his book; in the process he wrote Schneider, asking for suggestions (Janzarik, 1998). According to Berrios (2007), starting with the 5th edition of *General Psychopathology*, all updates were done by Schneider since Jaspers had not seen patients for 30 years. Schneider wrote a short textbook called *Clinical Psychopathology*, which was translated into English in 1959 (Schneider, 1959). This is a short summary for the clinicians who could not easily understand the “too philosophical” and lengthy *General Psychopathology*. Schneider’s life trajectory was the opposite of that of Jaspers; his contact with philosophy was soon after finishing his medical education, but he became a practicing psychiatrist and an excellent clinician. Schneider was probably one of the top German psychiatric clinicians since, in 1931, he was hired as the director of the Clinical Department of the German Institute for Psychiatric Research (Hoenig, 1982; Huber, 1987). Kraepelin (1920a) opened this Research Institute in 1917 to use the neurosciences “to make clear the nature and the sources of mental disturbances, and then to discover ways of preventing them, healing them or making them easier to bear”. Schneider’s and Jaspers’s opposite life trajectories converge at two important points. Like Jaspers, Schneider 1) did not want to cooperate with the Nazi university; and 2) was recruited by the US Government to resuscitate Heidelberg University after it was reopened in 1945, once the Second World War ended. Schneider taught psychiatry and Jaspers taught philosophy (Hoenig, 1982; Huber, 1987; Kirkbright, 2004).

The Great Influence of *General Psychopathology* in the United Kingdom (UK)

The first English translation of *General Psychopathology* included more than 900 pages and was published in 1963, reflecting the 1942 German edition which was the 7th and final edition (Jaspers, 1963).

The translation was made by the psychiatrist Julius (John) Hoenig (who was born in Prague, Czechoslovakia, but left after Hitler invaded it) (BMJ Obituaries, 2009) and Marian W. Hamilton (a social worker) with experience in translating German psychiatric books, including Schneider's *Clinical Psychopathology*. In 1947 when Hoenig was teaching psychiatry residents at the Institute of Psychiatry (IOP) in London, Aubrey Lewis (the chairman) recommended Jaspers's book to Hoenig (2004). In 1949, Hoenig (2004) decided to translate *General Psychopathology*, when he moved to Manchester where *Clinical Psychopathology* was used to teach psychiatry residents and where Ms. Hamilton was working,

The translation of *General Psychopathology* was one of the multiple steps in the complex transference of knowledge and ideas from Heidelberg to the UK (Table 1). Academic psychiatrists trained in Germany and Central Europe, exposed to a scientific approach and heavily influenced by Kraepelin and Jaspers became key influences on British psychiatry after migrating to the UK (Peters, 1996). The contribution of Mayer-Gross (Lewis, 1977) who trained in Heidelberg and moved to the UK (Table 1) was crucial, since the three editions of his textbook *Clinical Psychopathology* (Mayer-Gross et al., 1954; 1960; Slater and Roth, 1977) trained psychiatrists in the UK before the publication of the *DSM-III*. Mayer-Gross's influence in the IOP was crucial in the use of a narrow concept of schizophrenia influenced by Jaspers and Schneider in the UK (Bourdillon et al., 1965; Wing et al., 1967; 1974; Wing, 1983). Mayer-Gross trained Martin Roth, who became Chairman of Psychiatry at the University of Cambridge and brought German E. Berrios to Cambridge. Berrios collaborated with the University of Heidelberg and developed his interest in epistemology at the University of Cambridge (Fuentenebro de Diego et al., 2000). As Table 1 demonstrates, Jaspers has had a continuous influence on British psychiatry, including psychiatric research (Wing, 1983) and the training of the residents (Shepherd, 1982; Harrison, 1991; Goldberg, 2013).

The Limited Influence of *General Psychopathology* in the US

While the emigrating psychiatrists fleeing from the Nazis brought Jaspers's and Schneider's ideas to the UK, the emigration of German and Centro-European psychiatrists to the US brought psychoanalysts

to the US. By the mid-1950s nearly every department chairman of psychiatry in the US was an advocate of psychoanalysis (Wilson, 1983; Decker, 2007; Kendler et al., 2010). This changed upon the advent of the neo-Kraepelinian revolution, which started at Washington University in St. Louis (Blashfield, 1982; Decker, 2007; Kendler et al., 2010) (Table 2).

Kraepelin's nosology was developed by focusing on course and outcome as a critical defining feature of psychiatric illness as was done in medical disorders (Weber and Engstrom, 1997). In *General Psychopathology*, Jaspers criticized Kraepelin because not all psychiatric disorders followed the medical model. In 1970, Robins and Guze discussed diagnostic validity in psychiatry, focusing on schizophrenia. They proposed five steps: 1) clinical description, 2) laboratory studies, 3) delimitation from other disorders, 4) follow-up study, and 5) family study. This model was used in establishing validity in all psychiatric disorders. Robins and Guze (1970) did not quote Kraepelin in their article but their approach is essentially Kraepelinian, and this is why these authors have been called neo-Kraepelinian (Klerman, 1978; Decker, 2007).

The differences in timing and in the level of Jaspers's influence on British and US psychiatry and on the diagnosis of schizophrenia are obvious when one compares Table 1 with Table 2. Table 2 describes the chronology of the neo-Kraepelinian movement in the US, which developed with very limited attention to Jaspers.

General Psychopathology is rarely read by US psychiatrists and probably has had very limited direct impact on US psychiatry. Hoenig (2004) described a visit to a psychiatry chairman at a medical school in Philadelphia. The chairman told him, "Nobody reads it, but it is obligatory to have it seen on your shelf." *The American Journal of Psychiatry* has only published two articles focused on Jaspers. In 1967, Leston L. Havens commented on the publication of the English translation of *General Psychopathology* and hoped that US psychiatrists would be open to Jaspers who "provides a systematic rationale for eclecticism" (Havens, 1967) but his hopes did not become a reality. In 1993, Mundt, a German author, published a short Jaspers biography in the section *Images in Psychiatry* of the *American*

Journal of Psychiatry (Mundt, 1993). A third article comments on Jaspers's concepts of explaining and understanding in the context of Engel's biopsychosocial model (Schwartz and Wiggins, 1986). *The Journal of Nervous and Mental Diseases* has only published one article on Jaspers, in which Havens (1972) focused on existential psychiatry. This is in contrast (Table 1) with the *British Journal of Psychiatry*, which has published three book reviews of *General Psychopathology* (Trethowan, 1963; Shepherd, 1982; Harrison, 1991), three reflections on the centennial anniversary of *General Psychopathology* (Berrios, 2013; Goldberg, 2013; Sims, 2013), one article by Jaspers (1968) and one article focused on Jaspers's concepts of *explaining* and *understanding* (Ebmeier, 1987).

Ignoring *General Psychopathology* Led to a Broad Concept of Schizophrenia in the US

The lack of interest of US psychiatry in *General Psychopathology* led to a view of schizophrenia diagnosis mainly influenced by Bleuler and psychoanalysis and this, not surprisingly, led to a broad set of criteria for diagnosing schizophrenia, much broader than the British criteria. The words "not surprisingly" are a reference to the obvious differences between Kraepelin's and Bleuler's theories about schizophrenia (Kraepelin, 1920b, 1992; Bleuler, 1950; Hoenig, 1995; McNally, 2009), which were apparent from the beginning (first panel of Table 3). This difference in their concepts of schizophrenia led, in the 1920s, to the first schizophrenia rift (Hoenig, 1983); this first rift was between German-speaking psychiatrists (second panel of Table 3). German psychiatrists following Kraepelin and Jaspers and led by Mayer-Gross, argued with Swiss psychiatrists following Bleuler, who was influenced by psychoanalysis through Carl Jung (first panel of Table 3). This clash between German and Swiss psychiatrists about what constituted schizophrenia probably influenced Schneider, who developed his first-rank symptoms for the purpose of diagnosing schizophrenia in a more reliable way (third panel of Table 3). In the 1940s, there was an obvious convergence in the concepts of schizophrenia between the Swiss and the Germans, manifested by the coming together on this issue of Bleuler's son (Bleuler, 1978) and Schneider's main disciple (Huber et al., 1980) (fourth panel of Table 3).

The second schizophrenia rift was between English-speaking psychiatrists, US and British psychiatry. As this dispute is one of the key historical elements that led to the development of the *DSM-III* in the US (Table 2), it deserves some specific attention (Robins and Guze, 1970; Feighner et al. 1972; Rosenhan, 1973; Spitzer, Endicott and Robins, 1978; Spitzer, Andreasen and Endicott, 1978). In the 1960s, it became obvious that British hospitals had a narrower conception of schizophrenia and US hospitals tended to diagnose less manic-depressive illness (Kramer, 1969). This led to the collaboration (Zubin, 1969) of the London IOP and the New York State Psychiatric Institute (NYSPI). The IOP was heavily influenced by Jaspers's and Schneider's ideas (Wing, 1983) when they were developing a psychiatric diagnostic interview for research (Table 1). The NYSPI was a crucial element in the US neo-Kraepelinian revolution since Robert Spitzer was working there to develop ways to standardize psychiatric diagnoses. In 1970, Gurland et al. published the largest clinical sample of the US-UK study comparing psychiatric diagnoses in a random sample of patients admitted to these two hospitals (Gurland et al., 1970). The prevalence of schizophrenia diagnosis was 56% in New York versus 48% in London. A continuation study used 8 psychiatric patient tapes (Kendell et al., 1971). Five of the 8 tapes were rated by 30-40 British psychiatrists from the IOP and three by 200 all over the country. In the US two tapes were rated by 120 psychiatrists and 6 by 30 to 60 US psychiatrists, but the majority of them were from New York. It was obvious that the US psychiatrists tended to have a broader definition of schizophrenia. The authors stated, "Probably the most important cause of the Anglo-American discrepancies revealed here is that the American concept of schizophrenia has expanded greatly in the last 30 years without any corresponding enlargement of the British concept. The reasons for this divergence are complex, but the greater influence of the psychoanalytic movement in North America and influential teachers on both sides of the Atlantic, have been more important than any factual discoveries" (Kendell et al., 1971).

Later on it was clear that these differences between the IOP and NYSPI were the tip of the iceberg and that, before the *DSM-III*, the diagnostic criteria set for schizophrenia in the US was much broader than in the UK. The publication of the Vermont longitudinal study of institutionalized patients

demonstrated that only 56% (149/268) of the patients originally diagnosed with *DSM-I* schizophrenia met *DSM-III* schizophrenia criteria (Harding et al., 1987). The 44% of *DSM-I*-diagnosed schizophrenia patients who had different diagnoses according to *DSM-III* included 17% (44/268) with affective disorders, 7% (18/268) with atypical psychoses, 8% (22/268) with organic mental disorders and 12% (32/268) with other diagnoses (Harding et al., 1987). In summary, according to US psychiatrists trained in psychoanalytic theory before the 1980s, almost any patient who was psychotic or severely mentally ill had schizophrenia and a good number (almost half in the Vermont sample) of these patients with *DSM-I* schizophrenia would be diagnosed instead with other disorders by using traditional German and post-*DSM-III* US definitions of schizophrenia.

The Undeniable Complexity of *General Psychopathology*

In spite of the repeated recommendations over time by British psychiatrists (Shepherd, 1982; Harrison, 1991; Goldberg, 2013) that psychiatry residents should read *General Psychopathology*, the author's experience is that current US psychiatry residents, who usually lack any philosophical training, cannot understand selected chapters from this book unless they are intensively coached and helped. The literature provides ample evidence of the complexity of reading *General Psychopathology*. Hoenig (2004) reported that three German professors of psychiatry thanked him for the English translation, but facetiously commented they had never been able to read the book in German, and were now glad to be able to read the book in English. The complexity of Jaspers's writing almost had lethal consequences for Jaspers. Jaspers's wife was Jewish and was on the list to be taken to the concentration camps. Jaspers tried to immigrate to the US by seeking employment at Princeton University (Oliver, 1988). Unfortunately, Albert Einstein did not recommend him, saying that Jaspers's writings "affected him like the talk of an intoxicated person" (Oliver, 1988) and comparing him to one of the most obscure German philosophers (Hegel). In March 1945, Jaspers heard that he and his wife were to be deported to a concentration camp on April 14 of that year; fortunately, the US troops occupied Heidelberg on April 1 (Hoenig, 1966).

General Psychopathology contains two absolutely essential interrelated ideas concerning the practice of psychiatry (de Leon, 2013): 1) psychiatry is a hybrid scientific discipline that must combine the methods of the natural and the social sciences that, respectively, provide an *explanation* of illness that follows the medical model and an *understanding* of psychiatric abnormalities that are variations of human living, and therefore, 2) psychiatric disorders are heterogeneous (some are medical illnesses, some are variations of normality and others are in the middle, such as schizophrenia and severe mood disorders).

Although this article proposes that *General Psychopathology* has had limited influence in the US, it has had an important influence on Paul McHugh who, after his psychiatry residency at Harvard, trained for one year at the IOP. Dr. McHugh was Chairman and Professor of Psychiatry at Johns Hopkins University for approximate 25 years starting in 1975. Nancy Andreasen, wrote an article stating that an “unintended consequence of the *DSM-III* was the “death” of the recently resurrected US interest in Jaspers’s writing (Andreasen, 2007). The author thinks it is a superb article but he has a minor disagreement. Andreasen reported, “However, a few American institutions maintained ties with Anglo-European psychiatry. The institutions have sometimes been called ‘the Mid-Atlantics.’ They included Washington University in St Louis, Johns Hopkins in Baltimore, Iowa Psychiatric Hospital in Iowa City, and New York Psychiatric Institute in New York City.” Then she was to explain that these institutions led what other authors have called the neo-Kraepelinian revolution. Although no one would disagree with considering Washington University, Iowa Psychiatric Hospital in Iowa City and NYSPI the core of the neo-Kraepelinian revolution (Blashfield, 1982), it appears to the author that it is better to come out with a “neologism” to label McHugh’s approach as neo-Jasperian rather than neo-Kraepelinian.

McHugh provided very clear summaries of Jaspers’s fundamental ideas. The author uses McHugh’s textbooks (McHugh and Slavney, 1982; Slavney and McHugh, 1987) to teach US psychiatry residents, many of whom are foreign medical graduates, who have difficulties understanding *General Psychopathology* and are not willing to read more than a few pages even with considerable coaching by the author. A crucial point in Jaspers’s *General Psychopathology* is the distinction between “*Erklären*”,

which usually gets translated as “explaining” or “providing casual explanations”, and “*Verstehen*”, which usually gets translated as “understanding” or “providing meaningful understanding”. Slavney and McHugh (1982) describe “explaining”, “According to Jaspers, this explaining ‘from the outside’ is inescapable because causal connections have their foundations in the somatic realm, in biological phenomena that are themselves beyond the reach of consciousness and thus beyond the reach of understanding. In his view, causal connections can only be established empirically, by the hypothetico-deductive methods of the natural sciences” (pages 34-35). They describe “understanding” as follows, “By contrast ... methodologists of the social sciences argued that human activity could not be understood in such a manner, that distinctively human actions were not lawlike or causal in the specific sense in which these terms and their cognates applied to physical nature. Rather, human phenomena generally could be understood properly only in terms of what it is that agents of such actions themselves believed that they were doing or intended to do. Thus ... to understand a human action requires that one understand the way or ways in which the agent of the action himself understands and interprets his own action; its “meaning” is the meaning it has for the agent whose action it is. Beliefs and intentions, unlike natural phenomena, connote the conscious activity of agents subject to their own free (or relatively free) choice, or at least to their own self-comprehension.” (pages 35-36).

The next sections describe two neo-Jasperian approaches from the late 20th century, Berrios’s ideas on the hybridity of psychiatry in the UK and of McHugh on psychiatric diagnoses in the US. Due to limited space, this article does not review the work of S. Nassir Ghaemi, another important neo-Jasperian in the US. Ghaemi’s most important contribution is his book *The Concepts of Psychiatry* (Ghaemi, 2007a), which is heavily influenced by Jaspers. He has also written articles on the contributions of Jaspers to the scientific approach in psychiatry (Ghaemi, 2007b; 2007c; 2008) and on the excessive number of psychiatric diagnoses in the DSM versions after DSM-III (Ghaemi, 2009).

The Hybridity of Psychiatry: Jaspers’s Influences on Berrios

Berrios is the retired Chairman of Epistemology and Psychiatry at the Department of Psychiatry of the University of Cambridge in the UK. As Table 1 shows, he is the last link in the chain transmitting Jaspers's ideas to the UK. As a neo-Jasperian, Berrios reminds us again at the beginning of the 21st century of the unfortunate methodological position of psychiatry: dealing with hybrid objects with different levels of difficulty of study using the traditional scientific methods practiced in medicine. Using his words, "Psychiatry can be defined as a theoretical and practical discipline whose epistemological structure straddles the natural and human sciences" (Berrios, 2011). Then he provides a short history of psychiatry for the reader "*to understand*" (in the Jasperian sense) this hybridity. For this "thorny" issue, "the only solution is to develop a model of mental symptom-formation that blends the biological and semantic components." (Berrios, 2011). He proposes that there may be at least four pathways for symptom-formation in psychiatry described in Table 4 (Berrios and Marková, 2006). Some may be good subjects for a neurosciences approach but others are not. As did Jaspers and McHugh, Berrios questions whether a "neuroscience" approach is wise for all aspects of psychiatry. When the psychiatric symptoms are closely related to the brain signals, as are those in patients with "neurological" disorders, a neuroscience approach and methods such as brain imaging make sense, since these symptoms can be explained by a brain disorder. When the psychiatric symptoms and disorders are related to semantics (interacting human beings), a natural science approach using methods such as brain imaging makes no sense. The symptoms can only be *understood* in the Jasperian sense and not *explained* by brain disturbances. These relatively simple concepts imply a level of complexity that may be bad news for current psychiatric researchers. The author wonders if this is why contemporary US psychiatrists tend to neglect Jaspers's *General Psychopathology* and the neo-Jasperian approaches of McHugh and Berrios. McHugh's approaches is reviewed briefly after a brief summary of current status of US psychiatry.

Current US Psychiatry: An Extreme Biological View and a Denial of the Heterogeneity of Psychiatric Disorders

The *DSM-III* (American Psychiatric Association, 1980) was developed with the intention that it would be “atheoretical”, which is obviously not possible since psychiatric concepts cannot be described independently of the systems used to articulate them (Berrios, 1994). There is general agreement in the literature (Berrios and Marková, 2004; Ghaemi, 2009; McHugh, 2012) that *DSM-III* and later editions imply but do not specifically describe that all mental disorders are brain biological disorders following the medical model; this has led to widespread use of psychotropic drugs in the US population.

On the other hand, the leaders of the National Institute of Mental Health (NIMH), as leaders of psychiatric research in the US, clearly state that mental disorders are biological brain disorders. Hyman (2007), the prior NIMH director, explained, “Mental disorders are a diverse group of brain disorders that primarily affect emotion, higher cognition and executive function. The boundary between mental and neurological disorders is arbitrary.” One thinks this view that all mental disorders are brain disorders should be more clearly stated in the Research Domain Criteria (RDoC) (Insel et al., 2010) which were developed by NIMH “to create a framework for research on pathophysiology,” but, unfortunately, this is not clearly articulated. RDoC ignore mental disorders that do not fit the concept of a brain disorder. It is not clear whether the RDoC developers think such mental disorders do not exist and all mental disorders are brain disorders as Hyman stated, or whether some mental disorders which cannot be classified as mental disorders should be of concern for psychiatrists but not for psychiatric researchers.

The *DSM-5* does not comment on whether all mental disorders can be considered heterogeneous disorders or not. In the opinion of the author, the *DSM-5* appears to take one step backward and another forward. The *DSM-III* used a multi-axial classification system (American Psychiatric Association, 1980), and, more importantly, recommended listing “Personality Disorders” and “Specific Developmental Disorders” on Axis II. Nobody would deny that the *DSM-III* was indirectly implying that they are somewhat different types of mental disorders from those listed on Axis I. However, the *DSM-5* has eliminated the Axes (American Psychiatric Association, 2013); therefore, personality disorders appear to be in the same category as the previous Axis I diagnoses. This is the step backward, eliminating the

limited indication that mental disorders are heterogeneous. The step forward is that *DSM-5* provides an "alternative" classification of personality disorder pathology in its Section III, which uses personality traits and follows a "dimensional" perspective."

The Heterogeneity of Psychiatric Disorders: Jaspers's Influences on McHugh

McHugh (1987) proposed that psychiatrists use four perspectives: 1) disease, 2) behavior, 3) dimensional, and 4) self and life story. This approach is described in detail in his excellent textbook "*Perspectives in Psychiatry*"; the second edition was published in 1998 (McHugh and Slavney, 1998). In 2005, McHugh wrote a ground-breaking critique of the classification proposed by *DSM-III* and later editions; it was published in *JAMA* (McHugh, 2005) but has been ignored by US psychiatry. McHugh insisted that, as Jaspers described, psychiatric disorders are heterogeneous entities. Using his words, "The first cluster comprises patients with brain diseases that directly disrupt the neural underpinnings of psychological faculties, such as cognition, emotion, and perception. This family includes those patients with Alzheimer disease, schizophrenia, and bipolar disorder—patients who 'have' (or are proposed to 'have') structural or functional pathology affecting their brains and thus disrupting particular psychological faculties." The psychiatric disorders grouped in the other three clusters are not really "diseases" and include patients "vulnerable to mental unrest because of their psychological makeup", "who adopt a behavior that become a relatively fixed and warped way of life (i.e., patients with alcoholism, drug addiction, sexual paraphilias, or anorexia nervosa)" and "with distressing mental conditions provoked by events thwarting or endangering their hopes, commitments and aspirations. For example, they experience grief, situational anxiety, homesickness, jealousy, or posttraumatic stress disorder." In a more recent chapter, McHugh (2012) has further elaborated his ideas, writing, "We proposed four distinct 'Perspectives': the Disease Perspective (what a patient 'has'), the Dimensional Perspective (what a patient 'is'), the Behavior Perspective (what a patient ('does')) and the Life Story Perspective (what a patient 'encountered')."

The *DSM-III* and later editions mandate a system developed by “diagnostic democracy”, creating diagnoses through negotiated agreement among experts (Dean, 2005). As McHugh and Slavney (1988) describe in their textbook, a summary of which is found in Table 5, *DSM-III* and later psychiatric diagnoses are built as disjunctive categories, making them particularly prone to arbitrariness when experts are trying to obtain agreement in defining them. The need to satisfy the interests of different experts when negotiating disjunctive categories is a recipe for multiplying arbitrary diagnostic categories with arbitrary diagnostic criteria. In that context, it is not surprising that McHugh’s recommendations that not all psychiatric disorders can be considered “brain diseases” which follow the medical model were ignored. Which expert would like to have his/her favorite disorder downgraded something other than a “brain disorder”?

Conclusions

In 1913, Jaspers, a 30-year-old German psychiatrist working at the University of Heidelberg, published the first edition of a book called *General Psychopathology*. The first English translation of *General Psychopathology*, which reflected the 7th German edition (Jaspers, 1963), was published in the UK in 1963 and was one of the most important steps in the complex transference of knowledge and ideas from Heidelberg to the UK and the development of a relatively narrow set of criteria for diagnosing schizophrenia following the German tradition of Kraepelin, Jaspers and Schneider. While the emigrating psychiatrists fleeing from the Nazis brought Jaspers’s and Schneider’s ideas to the UK, the emigration of German and Centro-European psychiatrists to the US brought psychoanalysts to the US and led to the limited direct impact of *General Psychopathology* on US psychiatry. US psychiatry’s lack of interest in *General Psychopathology* led to a conceptualization of schizophrenia that was largely influenced by Bleuler and psychoanalysis. The result was a relatively broad set of criteria for diagnosing schizophrenia when compared with the British diagnosis, constituting a repetition of the scenario described earlier of the German-speaking countries in the 1920s. Almost half of the US patients diagnosed with schizophrenia in the US before *DSM-III* would be diagnosed instead with other disorders when the traditional German and

post-*DSM-III* US definitions of schizophrenia were used. The realization that US psychiatrists used a much broader concept of schizophrenia in the 1970s during a set of US-UK studies was one of the key historical elements that led to the development of the *DSM-III* in the US in what has been called the neo-Kraepelinian revolution.

Unless readers have some philosophical training, *General Psychopathology* is a complex book. *General Psychopathology* contains two absolutely essential interrelated ideas concerning the practice of psychiatry (de Leon, 2013): 1) psychiatric disorders are heterogeneous (some are medical illnesses, some are variations of normality and others are in the middle, such as schizophrenia and severe mood disorders), and therefore, 2) psychiatry is a hybrid scientific discipline that must combine the methods of the natural and the social sciences that, respectively, provide an *explanation* of illness that follows the medical model and an *understanding* of psychiatric abnormalities that are variations of human living.

Berrios's ideas on the hybridity of psychiatry in the UK and McHugh's ideas on psychiatric diagnoses in the US, both from the late 20th century, can be considered neo-Jasperian approaches, since they remind us of key concepts described in Jaspers's *General Psychopathology*.

Berrios reminds us again at the beginning of the 21st century of the unfortunate methodological position of psychiatry: dealing with hybrid objects. Some psychiatric symptoms and some psychiatric disorders are related to semantic components (interacting human beings), for which a natural science approach makes no sense.

McHugh proposed that psychiatrists use four perspectives: 1) disease, 2) behavior, 3) dimensional, and 4) self and life story (McHugh, 1987). This system of classifying psychiatric disorders could promote the neo-Jasperian revolution that US psychiatry needs.

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German; during more than 25 years, he has thoroughly searched for and read English and/or Spanish translations of the important classical German texts described in the article.

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Table 1. Historical chronology of the influence of the Heidelberg school in the United Kingdom

1933	Mayer-Gross leaves Nazi Germany and goes to the Institute of Psychiatry (IOP) in London (Lewis, 1977).
1939	Mayer-Gross appointed Director of Clinical Research at Crichton Royal Hospital in Scotland (Lewis, 1977).
1954	First edition of the textbook that become the main British psychiatric textbook <i>Clinical Psychiatry</i> (Mayer-Gross et al., 1954). Mayer-Gross wrote it with disciple Martin Roth and psychiatrist expert in genetics Eliot Slater who had trained at Kraepelin's German Institute for Psychiatric Research.
1959	First publication of the English translation of Schneider's <i>Clinical Psychopathology</i> (Schneider, 1959).
1960	Second edition of the textbook <i>Clinical Psychiatry</i> (Mayer-Gross et al., 1960).
1963	Publication of the English translation of <i>General Psychopathology</i> (Jaspers, 1963); first book review published in the <i>British Journal of Psychiatry</i> (<i>BJP</i>) (Trethowan, 1963).
1965	Article is published by British researchers in <i>Nature</i> using Schneider's first-rank symptoms (Bourdillon et al., 1965).
1967	Publication of <i>Present Psychiatric State</i> , a first attempt to standardize a psychiatric diagnostic interview by Wing et al. (1967) at the IOP; heavily influenced by Jaspers and Schneider. As a matter of fact, they used Schneider's first-rank symptoms for diagnosing schizophrenia (Wing, 1983).
1968	<i>BJP</i> published an article by Jaspers (1968).
1974	The modification of the <i>Present Psychiatric State</i> is published as the <i>Present State Examination</i> (Wing et al., 1974).
1977	Third edition of the textbook <i>Clinical Psychiatry</i> (Slater and Roth, 1977) after the death of Mayer-Gross; it was the main British textbook at the time of <i>DSM-III</i> . Roth becomes Chairman of Psychiatry at Cambridge and brings German Berrios with him (Fuentenebro de Diego et al., 2000).
1982	<i>BJP</i> published another book review of <i>General Psychopathology</i> by an IOP psychiatrist (Shepherd, 1982).
1987	<i>BJP</i> published an article on Jaspers's ideas on <i>explaining</i> and <i>understanding</i> (Ebmeier, 1987).
1991	<i>BJP</i> published another book review of <i>General Psychopathology</i> by a psychiatry resident (Harrison, 1991).
1992	At Cambridge, Berrios developed a collaboration with the Department of Psychiatry of Heidelberg University (Fuentenebro de Diego et al., 2000).
1996	Berrios become a reader in Epistemology of Psychiatry in Cambridge University (Fuentenebro de Diego et al., 2000).
2013	<i>BJP</i> published three reflections on Karl Jaspers and/or <i>General Psychopathology</i> (Berrios, 2013; Goldberg, 2013; Sims, 2013) In one of them Berrios (2013) proposes that this book will "endure because it demonstrates that descriptive psychopathology is not an 'objective and eternal' algorithm built to capture 'clinical' facts but instead it is a metalanguage through which culture is able to govern the presentations and experiences of madness."

Table 2. Historical chronology of the influence of the neo-Kraepelinian movement in the US, with special emphasis on schizophrenia

1949	In an academic environment dominated by psychoanalysis, Eli Robins arrived at the Department of Psychiatry at Washington University in St. Louis (Decker, 2007; Kendler et al., 2010).
1950	George Winokur arrived at Washington University as a third-year resident and Samuel Guze started his residence there (Decker, 2007; Kendler et al., 2010).
1969	Planning of the US-United Kingdom study of schizophrenia (Kramer, 1969; Zubin, 1969).
1970	Article on diagnostic validity by Robins and Guze (1970) focused on schizophrenia. Publication of clinical samples from the US-United Kingdom study of schizophrenia (Gurland et al., 1970).
1971	Winokur becomes Chairman of the Department of Psychiatry at the University of Iowa (Tsuang, 1999) where he takes the neo-Kraepelinian “virus” and contaminates the department, which included Nancy Andreasen who completed her residency in 1973. Publication of the US-United Kingdom study of schizophrenia using videotapes (Kendell et al., 1971).
1972	Feighner et al’s (1972) article describing 15 valid primary psychiatric disorders is published. This article becomes the most cited psychiatric article throughout the 1970s and 1980s (Blashfield, 1982).
1973	<i>Science</i> published study on 19 pseudopatients diagnosed with “schizophrenia in remission” (Rosenhan, 1973). It was the straw that broke the camel’s back since poor accountability of psychiatric diagnostic skills had been questioned by the National Institute of Mental Health (NIMH) and medical insurance companies (Wilson, 1993).
1974	American Psychiatric Association (APA) named Robert Spitzer Chairman of the Task Force on Nomenclature and Statistics. <i>DSM-II</i> needed to be reviewed, matching the publication of the 1978 International Classification of Diseases (ICD-9). Spitzer started selecting many of the US psychiatrists contaminated by the neo-Kraepelinian virus to develop the <i>DSM-III</i> criteria (half had current or past affiliation with Washington University (Wilson, 1993).
1975	Research Diagnostic Criteria (of 25 valid psychiatric disorders) are published by Spitzer, Endicott and Robins (1975;1978). This NIMH-sponsored initiative served as the basis for <i>DSM-III</i> .
1976	APA liaison committee of clinicians questioned the lack of match with ICD and, more importantly, elimination of neurosis. Spitzer recommended including ICD-9 in the <i>DSM-III</i> manual (Wilson, 1993).
1977	<i>DSM-III</i> large multicenter field trials start. This led to an increase in the number of psychiatric diagnoses (Wilson, 1993).
1978	Spitzer, Andreasen and Endicott (1978) published schizophrenia review article: US schizophrenia criteria had been too wide. Klerman (1978) developed the term neo-Kraepelinian.
1980	Publication of <i>DSM-III</i> with 265 diagnoses. Focus has moved from validity to “diagnostic democracy” (agreement among “experts”) and interrater reliability (Dean, 2012).

Table 3. History of schizophrenia: conceptual battles in Europe

KRAEPELIN'S VS. BLEULER'S CONCEPTS OF SCHIZOPHRENIA (Hoenig, 1995)	
1893	Kraepelin, in the fourth edition of his textbook, uses the term "dementia praecox"
1896	In the fifth edition, Kraepelin included under dementia praecox three previously described disorders: hebephrenia, catatonia and dementia paranoids.
1899	In the sixth edition, dementia praecox is clearly separated from a new entity, manic-depressive insanity. Kraepelin's view found much resistance until 1911.
1911	A Swiss named Eugen Bleuler (1950) published a monograph entitled <i>Dementia Praecox or the Group of Schizophrenias</i> . Bleuler was much more prone to theories than Kraepelin and was influenced by psychoanalysis through his young assistant Carl Jung. As a matter of fact, Bleuler proposed that there were some basic or fundamental symptoms that are characteristic of schizophrenia. In the US (McNally, 2009), these symptoms are usually simplistically called the four "As" of Bleuler (Ambivalence, Autism, disturbances in Affectivity and loose Associations). The problems with this simplified version and Bleuler's actual basic symptoms are that they cannot be easily and reliably defined and they exist on a continuum between normality and schizophrenia. As a matter of fact, Bleuler proposed a "latent schizophrenia" that may include people with personality disorders, to which Kraepelin did not agree (Hoenig, 1995).
1920	Kraepelin published an article that acknowledges there are cases in between schizophrenia and manic-depressive insanity and they cannot be reliably distinguished (Kraepelin, 1920b;1992).

FIRST DISAGREEMENT: IN THE 1920s BETWEEN GERMAN AND SWISS PSYCHIATRY

In Switzerland, under the influence of Bleuler, the diagnosis of schizophrenia began to widen with catastrophic legal consequences since criminals with personality disorders started to be declared incompetent to stand trial due to an incorrect diagnosis of schizophrenia (Hoenig, 1983). Thus, 1929, in a scientific meeting, Bleuler defended the wider Swiss way of diagnosing schizophrenia and Mayer-Gross defended the narrower German way of diagnosing schizophrenia (Hoenig, 1983).

DEVELOPMENT OF SCHNEIDER'S FIRST-RANK SYMPTOMS

In this context, Schneider tried to develop a more reliable way of diagnosing schizophrenia, although he was aware that his definition of schizophrenia was arbitrary since no specific neuropathology had been found. He labeled "first-rank" the group of symptoms that he considered specific to schizophrenia after an "organic mental disorder" was excluded (Schneider, 1959). Schneider was aware that in some patients the second-rank symptoms needed to be used to make the diagnosis.

FINAL AGREEMENT

In the 1940s, Swiss psychiatrists definitively used a narrower conception of schizophrenia. Bleuler's son (Manfred Bleuler) and Schneider's main disciple (Gerd Huber) agreed on how to diagnose schizophrenia when they started their schizophrenia longitudinal studies that were published thirty years later (Bleuler, 1978; Huber et al., 1980).

Table 4. Berrios's four pathways of psychiatric symptom manifestation (Berrios and Marková, 2006)

PATHWAY A: SUBJECTIVE COMPLAINTS

- These are complaints expressed by the patient.
 - Brain signal. It is assumed that there is a brain signal that manages to penetrate the consciousness. Berrios calls the basic material that leads to the symptom "primordial soup".
 - Configuration. By the time the symptom is expressed, the original signal at the primordial soup level is wrapped in multiple layers of meaning (like an onion). The symptom is configured by personal, familial, social and cultural factors.
 - Unlikely relationship between the brain signal and the subjective complaint.
- Modulation of the symptom may occur:
- 1) in the brain signal during the early stages,
 - 2) due to duration and composition of the brain signal,
 - 3) due to the patient's experience, intelligence, knowledge, attitudes or social/cultural context, and
 - 4) under the influence of the clinical interviewer.
-

PATHWAY B: OBJECTIVE SIGNS AND BEHAVIORS

- Brain signal that bypasses consciousness (formal thought disorder, abnormal movements...).
 - More direct relationship between the brain signal and the objective sign/behavior.
 - The clinician can influence through identification and labeling.
-

PATHWAY C: UNNAMED SYMPTOMS

- Brain signal that does not manifest in a known symptom.
 - Examples: 1) individual has no ability to express the symptom
 - 2) expressed by the individual using other known symptoms instead of the "correct" way
 - 3) the brain signal dissipates before it is expressed.
-

PATHWAY D: SYMPTOMS SECONDARY TO OTHER SYMPTOMS

- No brain signal. Symptoms are secondary to other symptoms.
 - Examples: 1) anxiety secondary to frightening hallucinations.
 - 2) cognitive changes that are not conscious but lead to the reconfiguration of the symptom.
-

Table 5. Disjunctive categories “plague” the *DSM-III* and later editions (author’s summary of chapter 3 from McHugh and Slavney’s *Perspectives of Psychiatry*)

KINDS OF DIAGNOSTIC CATEGORIES

- “Kinds” refer to: (1) distinctions between categories, and
(2) how membership criteria are assembled.
-

CONJUNCTIVE CATEGORIES: IDEAL IN MEDICINE

- The most satisfactory diagnostic category.
 -Characteristics: (1) accumulates a member by “conjunction” criteria (“and”),
 (2) the member is an individual who holds a progressively greater number of these criteria, and
 (3) each of these categories is useful and necessary in defining membership more precisely.
 -Examples: men = (1) male
 (2) ≥ 18 years of age
 Two criteria differentiate from infants, boys, girls and women.
 measles = (1) a febrile illness,
 (2) provoked by a particular virus,
 (3) with an exanthema,
 (4) after a known incubation period, and
 (5) in an unimmunized individual.
-

DISJUNCTIVE CATEGORIES

- Characteristics: (1) criteria can replace one another, and
 (2) the list of criteria is linked by “or” (rather than “and”).
 -Examples: baseball strike = when the batter:
 (1) swings at a pitch and misses the ball, or,
 (2) does not swing at a pitch that has passed between his knees and upper arms, or
 (3) swings at a pitch and hits the ball, the ball goes “foul” and he has less than 2 strikes on record at the time.
 There is a concept behind giving a strike:
 (1) the batter did not hit the ball cleanly when swinging, or
 (2) the batter did not swing when the umpire judged that he should have swung.
 -The existence of a concept behind a criterion implies that the category is complicated:
 (1) a great deal of arbitrariness is involved, and
 (2) it is difficult to explain to a non-expert.
-

DISJUNCTIVE CATEGORIES: THE “PLAGUE” IN PSYCHIATRY

- Psychiatry has many disjunctive categories. *DSM-III* and later editions are built as disjunctive categories:
 (1) 1 of 3 criteria in group A,
 (2) 2 of 6 criteria in group B, and
 (3) 0 of group C.
 -Most of them have similar awkwardness to a degree that we wonder whether the category is:
 (1) real and useful, or
 (2) arbitrary and idiosyncratic.
 -Operationalized definitions and good interrater agreement do NOT eliminate awkwardness.
 -Disjunctive categories: (1) tend to spread because they bring together under a single term individuals that are difficult to classify,
 (2) reflect the conceptual difficulty in the field of psychiatry,
 (3) must be used because we have nothing better at the moment, and
 (4) ideally should be replaced with conjunctive categories.
 -Difficulties in communicating in psychiatry proceed from:
 (1) failure to appreciate the awkwardness inherent in disjunctive categories, and

- (2) the need to explain: a) the concept behind a category;
b) the features by which it is constructed,
c) its utility.
-