up my impression of the stimulating argumentation presented in the paper by Krueger et al.

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After the failure of DSM: clinical research on psychiatric diagnosis

Clinical research on psychiatric diagnosis has failed from 1980 until now. In the DSM-III onwards era, clinical nosology research has been irrelevant. Contrary to the claims made in 1980 with DSM-III, diagnostic reliability did not lead to diagnostic validity, because reliability became an end in itself. The psychiatric profession congratulated itself on agreeing about how to define psychiatric diagnoses, and refused to make any further changes. The process was reified in DSM-III and DSM-IV, such that major changes were infrequent, and when they did occur, they were based on winds of opinion rather than solid, replicated scientific research. Minor changes were fought with passion, despite reasonable scientific data in their support[1].

In short, the greatest obstacle to scientific progress is, and has been, the DSM system of diagnosis. In 1980, DSM-III promised to push psychiatry forward, defining clear criteria for improvement with research. Now, DSM-5 is based on unscientific definitions which the profession's leadership refuses to change based on scientific research.

This perspective can be seen as heretical, as it is still not accepted by the mainstream of the American Psychiatric Association (APA). Yet, not all American psychiatry agrees with the APA. Importantly, the US National Institute of Mental Health (NIMH) leadership strongly criticized DSM-5 upon its publication, and announced it would no longer fund research using DSM criteria. Instead, the NIMH leadership proposed an alternative approach for research: the Research Domain Criteria (RDoC). The main problem with the latter approach is that it gives up on clinical research about diagnosis altogether, claiming that research should begin with brain-based concepts. Both extremes are questionable: the DSM approach is clinical but unscientific; the NIMH approach is scientific but not clinical. The profession still awaits a scientific approach to clinical research on diagnosis.

Krueger et al's paper[2] reflects a positive response to this unfortunate state of affairs. The key leaders of this consortium were involved with the unhappy personality traits vs. disorders controversy in DSM-5[3]. They are researchers who advocated for following scientific data towards a change in personality nosology in favor of traits. They failed. Now they propose a consortium to conduct and promote an empirically-based nosology in psychiatry. This project is long overdue.

Our current dilemma was predictable. We can learn from early critics of DSM, like H. van Praag. In 1993, while the DSM-IV process was in full swing, he wrote[4]: "Today's classification of the major psychiatric disorders is as confusing as it used to be some 30 years ago. All things considered, the present situation is worse. Then, the psychiatrists were at least aware that diagnostic chaos reigned and many of them had not high opinion of diagnosis, anyhow. Now the chaos is codified and thus much more hidden... There is nothing wrong in basing the first draft of an operationalized taxonomy on expert opinion... One should abstain, however, from proceeding further on that route. Yet, this is exactly what happened... I strongly feel that 1) an immediate moratorium should be laid on any further expert-opinion-based alterations in [diagnosis]... and that 2) future changes should be based on research only".

An important feature of the DSM ideology is the rejection of the concept of a hierarchy of diagnosis, on the debatable ground that we cannot have hierarchies in the absence of etiology. If we do not know causes of diseases, we cannot say which ones should be diagnosed preferentially to others. This perspective ignores the importance of differentiating diseases with many symptoms from those with fewer. If a symptom occurs as one of twenty in one illness, and one of two in another, then the first should be ruled out before the second is diagnosed. It is not biologically sound to diagnose "comorbid" panic disorder every time someone has a panic attack in the setting of a depressive or manic episode. The panic symptoms are often caused by mood states, rather than being a separate independent disease. We already take this approach with delusions and hallucinations; if they occur in mood states, we do not diagnose schizophrenia. This is an exception in the DSM system, though, which refuses to use the same logic for other psychopathological states.

Hence two problems result, again as van Praag described decades ago: "nosologomania"[5] (i.e., the creation of many scientifically invalid diagnostic definitions) and many false "comorbidities"[6].

In fact, the concept of "comorbidity" was introduced by Feinstein in 1970 as meaning the simultaneous co-occurrence of two independent, unrelated diseases[7]. The co-occurrence of anxiety and depression does not quality for comorbidity; either they are symptoms of the same condition (like neurotic depression), or they reflect one condition causing another (as in mixed depression, where anxiety is caused by the mixed state).

The hierarchy proposed by this consortium grows out of the personality literature. It includes concepts that may be relevant to personality, but which are less relevant to mood or psychotic diseases. Dimensionality is relevant in both cases, but perhaps in different ways. For instance, the best clinical research supports the dichotomy between schizophrenia and manic-depressive illness. Further, the externalizing/internalizing concepts do not capture many of the features of manic-depressive illness, such as the presence of mixed states. The placement of "mania" as part of an "internalizing" disorder is questionable. The distinction between bipolar illness and "unipolar" depression is assumed in the hierarchical taxonomy, whereas this distinction has questionable validity based on the best available clinical research.

Thus, the proposal of a quantitative hierarchy is welcome, but how it is set up will require more attention to some clinical research that does not appear to have been included in the working taxonomy provided in Krueger et al's paper.

An alternative approach growing out of research on mood and psychotic diseases has been proposed dating back to the 1970s[8]. I have suggested a modernized version of that approach[9]. In this proposal, the hierarchy of psychopathology would involve manic states (bipolar illness) at the top of the pyramid of diagnosis, followed by depressive states (unipolar depression), followed by schizophrenia, then anxiety diagnosis (like obsessive-compulsive disease), then personality "disorders" (such as borderline and antisocial), then attention deficit disorder and narrowly defined diagnoses (such as eating disorders or paraphilias). The general concept is that conditions higher on the hierarchy are polysymptomatic, and cause the symptoms of conditions lower on the hierarchy, and thus the former should be ruled out before the latter are diagnosed.

This is standard medical teaching. Core medical training involves using symptoms to identify diagnoses, and not just converting symptoms into diagnoses, as is the case with DSM-III onwards. Then those diagnoses are organized in a differential diagnosis, where higher order ones are ruled out before lower order ones are made. The opposite approach is taken with the DSM system, which is powerful evidence for an important observation: contrary to what many of the post-modernist and anti-biological critics of DSM claim, the DSM system is not at all representative of the "medical model". In fact, it is quite anti-medical, as shown in its rejection of the hierarchy concept.

In sum, Krueger et al's effort is very worthwhile, but essentially limited to concepts in the personality literature. If expanded to capture affective and psychotic conditions, it could begin to put the profession on the road to a better clinical nosology for the future, leaving DSM in the rearview mirror.

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Internalizing disorders: the whole is greater than the sum of the parts

The Hierarchical Taxonomy of Psychopathology (HiTOP) consortium is a group of investigators working to advance the empirical classification of psychopathology. In a previous issue of this journal they published a concise account of the work of their consortium[1], and now they put forward a statement of intent and a summary of progress[2].

Practitioners in the mental health field act as though each mental disorder is a discrete category – Mrs. Smith has panic disorder; Mr. Brown has major depressive disorder – and consider that treatment and future developments will naturally follow from the diagnosis. At one level this is appropriate and necessary for the orderly management of treatment for individual patients, but at a higher level this is not correct: the defining symptoms of each mental disorder exist on dimensions that extend from very mild and incomplete sets consistent with wellness to the very severe, complete sets that disable and distress and are incompatible with being well.

The classifications of mental disorders – DSM-5 and ICD-10 – are, at the simplest level, definitions of the threshold at which a set of symptoms becomes sufficiently complete, disabling or distressing to be of clinical concern, and an indicator of the need for treatment. The point on a dimension of increasing severity where a diagnosis is warranted is not indicated by any external measure