

# **DSM-5 and the Forthcoming Chaos Over Diagnosis in Psychiatry: Time for a Bold New Initiative?**

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## **(I) Background: A New Initiative on Psychiatric Diagnosis would be Very Timely.**

Diagnosis in psychiatry has always been problematical, a situation which has never been resolved, because no-one has known how to do better than current convention- and consensus-based diagnostic systems. The launch of DSM-5 by the American Psychiatric Association on May 18<sup>th</sup> gives impetus to efforts to do better. Shortly before it was released, the US National Institutes of Mental Health (NIMH), the largest funder of research into mental health world-wide, issued a public statement that it would no longer support use of DSM categories for research it supports, on the grounds that these categories lacked validity. It preferred instead to work towards concepts (and diagnoses) of mental disorder based on evidence from “genetics, imaging, cognitive science and other levels of information, to lay the foundation for a new classification system”. Many questions arise about what this might mean. Perhaps it was more of a political than a scientific move. In any case this clash certainly “puts the cat amongst the pigeons”, although I am not quite sure which is which!

A few days after this announcement, the British Psychological Society also came out against DSM-5, but on diametrically opposite grounds. Implicitly, this body challenged the very concept of psychiatric diagnosis based on medical models, viewing diagnoses as reflecting “subjective judgements . . . related to current normative social experiences.” It would prefer “a revision of the way mental distress is thought about”, with increased emphasis on social factors such as poverty, unemployment and trauma.

These events make it almost certain that there will be a period of some years of uncertainty - indeed of chaos - about psychiatric diagnosis, in many countries. From my viewpoint, that of a scientist, that is to be welcomed (although I might not say the same if I were a practicing psychiatrist): Times of crisis or chaos are also times of opportunity. These are occasions when, with current orthodoxy clearly becoming unworkable, the only alternative is to question fundamental assumptions, and rethink basic assumptions along fundamentally new lines. From this, I am emboldened to write the present document. The recent events, and the likely “power vacuum” which is likely to prevail for some time, offer an unprecedented opportunity to start something radically different from – and better than - past attempts to set up systems for psychiatric diagnosis (which, in my view, from a scientific point of view, are manifest failures). The sections below do not go into detail about any class of mental disorder. There is much “fine tuning”, many caveats, qualifications, extensions and exceptions to be added to what I write. However, I hope that, as a statement of an overall philosophy to support a better system of diagnosis in psychiatry, what I write will provoke some

discussion at high levels within psychiatric profession in several countries and allied disciplines, perhaps leading to steps being taken to implement recommendations I make, and to set up procedures for work on the detail.

## **(II) Philosophical Underpinnings.**

**[A] A Doctrine of Human Nature.** Within medically-oriented psychiatry (that which lays claim to being part of scientific medicine), there has been little explicit attempt to define the model of human nature from which concepts of mental disorder might be derived. Implicitly however (though rarely discussed), we are bound into a model of human nature which goes back 2500 years within Western culture. In this model, human rationality is separated from emotional realities, the former being taken definitely to be superior to the latter. This has always created problems – sometimes very severe ones - not least in coming to terms with sexuality, which (as St Augustine was acutely aware in the fourth century CE) are difficult to assimilate into notions of the “rational human being” as an ideal.

Only within traditions of dynamic psychiatry, dominated a century ago by the likes of Freud, Adler and Jung were such large-scale issues of human nature as a whole up for discussion. These traditions are actually much older than those pioneers, but had been separated from medical thinking until they became partially assimilated with the medical world in Freud’s day. However, Freud probably thought that integration of reason and emotion in a comprehensive way was fundamentally impossible for human beings; and none of the pioneers’ work has yet been fully accepted within traditions of scientific medicine, let alone the wider enterprise of the natural sciences. In broaching this subject, I gain inspiration from two very different sources, which make me think it *is* possible to define a model of human nature better than the one we inherit from the classical world (and which still dominates Western cultures).

The first of these is the essentially holistic concept of health found within Maori culture (and probably Polynesian culture generally). Their philosophy, in so far as I understand it, is captured in the metaphor of a building where the roof is supported by four walls (or alternatively, a table supported by four legs). Respectively these can be identified as biological, psychological, spiritual and ancestral aspects of human identity. This conceptualization is essentially holistic: All four walls (or legs) are in inseparable union, and all are required for complete health. There is no attempt to split off human rationality from emotional life (a concept which I suspect would be completely incomprehensible to Maori thinkers).

The second source is a book I read recently by Ernst Kretschmer (*Hysteria, reflex and instinct*). Kretschmer was from Germany in the generation after Freud. As a newly-trained physician, he saw in a hospital in south Germany far more cases of hysteria than ever did Freud, and not in women, but in men (casualties from the front-line in WWI, suffering from what was otherwise known, on the British side, as “shell shock”). His book was originally published in 1923 but a revised edition, with new case material from the 1950s appeared after WWII, and an English translation was published in 1961, to which I had access. His book explores several levels of human behaviour from complex, fully premeditated and deliberate behaviour, to behaviour which is still complex but driven by automatic emotional responses (instincts), and then to responses

which are quite automatic, rapid, and simple, with no adjustment to the current situation (reflexes). He was well aware of latest advances in neuroscience, and regarded the emotional reactions he had seen in his patients as part of the whole gamut of emotional responses seen in mammalian behaviour generally. Kretschmer was one of the few German psychiatrists who came through the Hitler years with his reputation intact – and during WWII, he was not afraid to challenge in clever and courageous ways, the regime in which he had to work. He died in 1961. Twenty five years later, a German psychiatrist of a later generation, Heinz Häfner (who I have met), wrote an article of appreciation of Kretschmer (who is little known outside Germany), and used the phrase “holistic biologism” to describe his approach. Implicitly Kretschmer totally rejected the Western split between reason and emotion.

I believe that these two sources point towards a better model of human nature than that which dominates Western thinking, one more in keeping with brain biology as we now understand it, and which provides a better basis for thinking holistically about mental disorder.

**[B] The Normal Trajectory of Human Psychological Development.** From birth to advanced age, the goal for most of us is to search for the most complete integration of ourselves as persons; so, most of us seek “personal wholeness”. Carl Gustav Jung said the same. Indeed, without being too teleological, an overview of brain dynamics might also lead one to conclude that the human brain (and to some extent the mammalian brain generally) is *designed* to achieve maximum possible integration of our varied life experiences. In addition, construction of our sense of personal identity, even from early years, is in part a social process: We gain our sense of being a person from interaction with other persons. However, many factors - social pressure, employment, education, and the need for specialization - get in the way of this, and many people never reach a comfortable degree of personal integration. More important, it must be acknowledged that this life-long process of psychological development can never, even in principle, be complete. (I could argue this point in quite a technical way, based on facts from neurocytology, and the functional interplay between various forebrain structures.) In effect this indicates that we are all “flawed creatures”. We therefore indulge in various forms of defence or denial, processes to which we are all prey, and require considerable discipline to avoid, and then never completely. I do not want to give the phrase “flawed creatures” any specific religious slant. In particular, in the interests of staying true to a thoroughly holistic concept of human nature, I avoid any implication that there is some sort of indivisible “soul”, a substance or structure which is metaphysically separate from the physical brain.

**[C] Broadest Definition of Mental Disorder.** I know of no system of psychiatric diagnosis adopted by either psychiatric or legal professions which gives an adequate definition of mental illness. Most definitions are either obviously circular and/or riddled with inconsistencies, and some flatly refuse even to attempt a definition. However, the above model of human nature, and the specification of the normal trajectory of human psychological development, leads easily to a definition of “mental disorder”. (I use the term “mental *disorder*”, not “mental *illness*”, to avoid premature bias of my arguments towards medical concepts, for reasons which become clear below.)

*“Mental disorder occurs when the failures of personal integration become so great that either of two circumstances apply: [i] These failures become apparent to the person him/herself, giving rise to distress, embarrassment, failure of the person to “understand him/herself”, or a compromised image of themselves as an (idealised) integrated “autonomous person”, to such a degree that it is beyond their capacity to resolve unaided; [ii] Given the processes of defence or denial referred to above which will be reflected in behaviour, failures of personal integration lead to obvious changes in that person’s behaviour to such a degree that they impair a person’s social functioning, and tend either to disturb other people in their social interactions with the person primarily disturbed, or severely limit the person’s own capacity to look after themselves.”*

A corollary of this definition is the broadest definition of the role of a psychiatrist (shared with various other professional groups): This is to assist a person rebuild their own sense of being an integrated person, to the greatest extent to which they are capable. Specification of this role in no way determines whether the healing role of a psychiatrist or other mental health professional should be by medical treatments such as medication or by other biological therapies, or by any form of psychotherapy. Any of these, singly or in combination, may be appropriate.

It should be noted that this definition of mental disorder is based, in its very essence, on a holistic concept of a person. It also incorporates the social (or in Maori terms, the ancestral) dimension, since personal identity is in large part socially constructed. It is based on large-scale functioning of the whole nervous system and its ability to construct personal identity, rather than on lower level processes, such as individual cellular or chemical constituents of the brain, or its systems or sub-systems (as would be the case for most illnesses in general medicine, including neurological disorders). Thus the basis of this definition is quite separate from that for disorders of general medicine. In general medicine, definitions of disease usually focus primarily on a single system and are thus not to be viewed holistically, although such disorders often have far-reaching impact.

In broad brush strokes, this definition, offered for mental disorder, serves to separate psychiatry from neurology or general medicine. For this reason, I avoid using terms such as “illness” or “disease”, which are more appropriate for general medicine. In this sense, when DSM-III and later DSM editions use the term “disorder”, I think that APA has it partly right, whereas the journal with the title “*Journal of Nervous and Mental Disease*” has it wrong. There are similar points to be made about the terms “symptom”, “diagnosis” and even “patient”. Although I do not want to get tied down in semantic arguments, we need terms other than these. This point is expanded in the next section.

#### **[D] Contrasts with the Medical Concept of Illness or Disease.**

Only some of issues which lead people to seek help from psychiatrists have any claim to be illnesses or diseases; other are distressing reactions to life events, and are not at all to be classed as illnesses or diseases. For issues which *might* be classed as illnesses, it was Emil Kraepelin, more than anyone else, who asserted that mental disorders are best understood as analogous to physical disorders, along the lines of

medical thinking of his day<sup>1</sup>. However, there are good reasons to question the exactness of this analogy:

(i) Whichever term is used in general medicine (disease, disorder, illness etc) a disorder is recognised by its symptoms, signs and other findings. The term “symptom” cannot be defined except in relation to medical concepts of disorder. Symptoms in general medicine usually refer to specific systems of the body, or a specific organ, and indicate identifiable impairment of function (i.e. pathology) in that system or organ. The same manner of thinking applied in development of late nineteenth century neurology, where symptoms indicated damage in specific pathways or cerebral regions, with corresponding loss of a specific function. If mental disorders are to be equated with physical disorders, one should then ask: What system, organ, or pathway is disturbed? . . . and which specific function is lost? . . . and in what sense is there “pathology” as opposed to mere statistical deviance from the norm? These questions are hard to answer, because symptoms as indicators of pathology in specific systems or organs, or in specific pathways in the brain, are essentially non-holistic, and difficult to apply in a holistic sense to disturbed “balance”, in a normally well-integrated personal whole.

(ii) In general medicine diseases usually involve a degree of subjective impairment, suffering or distress, and confer no benefit to a patient. However, mental disorders do not necessarily involve impairment, suffering or distress. In many such disorders, there may be areas of function where a person performs better-than-normally, these areas being inextricably mixed with areas of impairment. This fact is easily forgotten by psychiatrists because evidence on the accessory benefits is not well covered in clinical writings, but is more likely to be found in research papers produced by experimental psychologists and others. A psychiatrist’s brief is specifically to identify and treat “mental illnesses”, and this limits his/her perspectives. In much the same way, it is said, that for someone whose only tool is a hammer, “everything starts to look like a nail”. In any case, the medical concept of disease or illness does not fit well the broader range of such facts beyond the clinical evidence.

(iii) Disorders in general medicine can, to a considerable extent, be given generic definitions, without considering individual features such as individual personality and unique life story (although, even in general medicine, some would want to differentiate between the concept of “disease”, which is generic, and “illness” which is individualized). In the case of mental disorders, without dispensing with the concept of diagnosis, and whatever the diagnostic label, it is more important than in general

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<sup>1</sup> According to Kraepelin (see: Young,A. [1995] The DSM-III revolution. Chapter 3, in *The harmony of illusions: Inventing post-traumatic stress disorder*. Princeton University Press, Princeton, NJ.

(a) Mental disorders are best understood by analogy with physical disorders.

(b) Medicine’s historic first step was to classify. Psychiatry must begin there also.

(c) Classification of mental disorders demands careful observation of visible phenomena.

(d) *Classification is a necessary first step to understanding aetiologies.*

medicine to address unique features of each individual, his/her personality independent of any disorder, their life history, and the impact of each of these on the manifestation of a disorder.

(iv) In general medicine, diagnosis relies on eliciting symptoms or signs in a fairly objective way, and if additional laboratory tests are conducted, these will have an even higher degree of objectivity. In contrast, elicitation of symptoms in psychiatry almost always involves a degree of interpretation in a psychiatrist's mind, which may differ according to the theoretical standpoint of each psychiatrist, much more so in psychiatry than in general medicine.

(v) From points just made, it follows that the term "symptom" is not quite right, when used in psychiatry, since it prejudices an important issue: The idea of "illness" becomes preordained once the term "symptom" is used. This is important, since some vivid experiences (such as "hearing voices") are regarded in one culture as "symptoms of psychopathology", but are accepted in another culture as quite normal, or even as a special "gift". We need a better term than "symptom" to capture this. "Specialized experiences" or "unorthodox experiences" may fit the bill here.

### **(III) Principles for Defining Psychiatric "Syndromes" or "Disorders".**

As explained, terms such as "diagnosis", "illness" and "disease" are part of medical vocabulary. If the issues with which psychiatry deals (corresponding very roughly to "illnesses" or "diseases") are better defined in ways categorically different from those in general medicine, we need different terms. "Disorder" is one such term. "Syndrome" is another, which in general medicine refers to a "running together" of symptoms, often, especially in psychiatry with the added implication that explanation of the syndrome, in terms of defined causes, is not yet clear. A third term, which deals better with the fact that impairments may be inextricably linked to above-normal abilities, is to identify a psychiatric condition as a "Cognitive Specialization", or a "Perceptual Specialization". In the paragraphs below, "disorder", "syndrome" and "specialization" will be used interchangeably. However, unlike the implicit absence of an explanation, when the term "syndrome" is used, the first suggestion made below is that definite disorders should not be defined except in so far as their causal basis is known, or can be inferred with reasonable confidence. Given this, several principles can be proposed for providing definitions of specific disorders, syndromes and cognitive or perceptual specializations.

- (i) *Definition should be linked to explanation:* Concepts of mental disorder should be defined only in so far as their definition is supported by – and in turn can support – sound explanations. This statement corresponds to a maxim I have proposed recently<sup>2</sup> about validation of scientific concepts more generally: *The **only** way in which scientific concepts can be securely validated, such that they will stand the*

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<sup>2</sup> See my essay entitled: "The Scientific Status of Concepts of Mental Disorder, Community Concerns, and Precedents from the History of Science". Available at: [www.robertmiller-octspan.co.nz](http://www.robertmiller-octspan.co.nz)

*test of time, is to define them in such a way that the definitions will support strong explanatory arguments.* Without this, in the words of Francis Bacon, “If the notions themselves . . . are confused and over-hastily abstracted from the facts, there can be no firmness in the superstructure.” The essential inter-dependence of definition of a syndrome and its explanation is fundamentally different from the policy of Kraepelin, for whom classification had to come before explanation - and, no doubt, authority for that initial classification was likely to have come from Kraepelin himself). Two additional points need to be made to clarify the word “explanation”: *First*, the strongest explanations in the physical sciences are “cross level” ones, usually starting from phenomena well known at a higher level, with arguments then presented to account for these phenomena in terms of known or hypothesized principles about lower-level processes. For mental disorders or syndromes, this would mean accounting for known features at the level of psychology, behaviour, unorthodox experiences, or first-person literary accounts in terms of underlying dynamic processes (usually inferred from multiple sources, rather than definitely proven) within the brain. *Second*, in seeking explanations, we should not confuse true reasoning about causes, based on established principles of causation with mere correlation between measures (with causal principles never stated).

- (ii) *Areas of ignorance or lack of understanding should be stated as explicitly as possible:* If it is important to link definitions of mental disorders/syndromes to explanations which can be made with some confidence, it is equally important to make clear which are the areas of uncertainty. Galileo said this better than anyone 400 years ago. He decried over-confident assertions of some of his contemporaries, “employed by some philosophers as a cloak for the correct reply which would be ‘I do not know’. That reply is as much more tolerable than the others, as candid honesty is more beautiful than deceitful duplicity”<sup>3</sup>. In psychiatry, this line is important for at least two reasons: *First*, if we cannot be open about what we do not understand, there is little encouragement to future practitioners to seek better understanding, and a discipline then gets stuck in a state of immovable conservatism. If however, an official document is produced as a professional guide on definitions of mental disorders, then it should be possible for areas of lack of understanding - of syndromes, specializations, etc - to be gradually reduced over successive editions of the document, with a parallel increase in the areas where there *is* some degree confidence in understanding. The same principle was adopted by the founding father of the USA, whose constitution included a clause (“Article V”) allowing its successive amendment. *Second*, at the interface with patients, explicit recognition of what is *not* understood, opens the door, under suitable favourable circumstances, for a practitioner to share candidly with his/her patient the limits of current understanding, or usefulness of diagnoses. If this is accepted as part of the possible interchanges with a patient, it helps ensure the integrity both of the practitioner and his/her practice, and of the therapeutic relationship. On the

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3 Dava Sobel: *Galileo's Daughter*.

other hand, if such candid admissions are *not* possible, and personal authority of the practitioner is assumed to reign supreme, all manner of deception and subterfuge might become accepted parts of professional practice.

- (iii) *States versus traits*: Research literature in psychiatry often separates abnormal states, taken to be transient, from abnormal traits, envisaged to be longer-lasting and even permanent characteristics of each patient. In currently-used diagnostic systems, the symptoms (a.k.a. “specialised experiences”) of an abnormal state, often rather dramatic departures from the norm, are given more weight than many trait features (which are often more subtle). One reason for this is that the latter are usually documented in experimental psychology or psychophysiology literature rather than in clinical research papers. Although, in principle a clinical interview might be able to assess some of the traits, my impression is that, in practice, the tradition of seeking such information in a clinical interview generally lags far behind current knowledge on corresponding matters gained by experimental psychologists or psychophysicologists. If we attempt to correct this bias, several corollaries follow:
- (a) The traits, being relatively enduring features of each patient, can more easily be linked empirically and theoretically to enduring features in brain structure or function. In contrast, more dramatic symptoms/experiences of abnormal states are linked by longer chains of causation to fundamental changes in the brain, which are then more difficult to define in theory, and, since they are transient, are more difficult to prove empirically.
  - (b) The aspects of brain biology which are likely to be most easily related to these traits are neurobiology at the cellular level, but seldom at the level of molecules or single genetic factors (although that *might* come). To give an example, in my own work on schizophrenia, distribution of conduction times across populations of cortico-cortical axons, and the variation between persons in the spread of conduction times amongst a population of axons, was critical in a theory of the non-psychotic traits of schizophrenia. Conduction time in axons is itself closely related to axonal structure, a relatively stable feature over years or decades. While my assumptions in this theory were at the level of hypotheses rather than directly demonstrable facts, those assumptions provided plausible explanations for so many psychological findings that they can lay claim to a degree of validity. In addition, I now believe that this variable (the degree of spread of conduction times across a population of axons) has an explanatory potential for many other psychiatric syndromes beyond trait aspects of schizophrenia. Of course there are many other aspects of brain cellular structure and function which could provide a basis for explanation of other types of mental disorder.
  - (c) This formulation might mean that, as in neurology, diagnoses can be made at two levels: The actual processes occurring at a cellular level, and the specific pathways or brain regions in which those processes occur. It is nevertheless still



true that the overall abnormality as a *psychiatric* disorder, is to be defined in terms of its impact on the entire person and his/her sense of personal wholeness.

- (d) Many currently recognised psychiatric diagnoses are defined in terms of dramatic symptoms occurring during transient states of mental turmoil; but such states nevertheless occur in people with a constellation of enduring predisposing traits. With the proposed shift in emphasis, it might often be better to re-classify such diagnoses not so much as disorders in their own right, but as transient complications of pre-existing and enduring conditions, which themselves are defined in terms of trait features. An analogy might be the stage in nineteenth century general medicine, when syndromes such as “dropsy” were taken as distinct disorders, but eventually came to be seen as complications of enduring underlying conditions.
- (e) An alternative way of viewing dramatic but transient manifestations of mental disorder/distress is that they are severe reactions of a person (and his/her central nervous system), in response to extreme life events (stress, abuse, trauma etc) in the recent or distant past. The attempt should then be made to separate these from transient states linked to genuine disorders rooted primarily in unusual brain function.
- (f) While transient states (possible complications of underlying syndromes, or severe reactions to life events) may often be best regarded as sharply-defined categories, the underlying syndromes, defined by patterns of psychological traits, are probably always best seen as extremes along various dimensions, especially personality dimensions, which collectively define cognitive or perceptual specialization. If this is so, in the future, diagnosis (or whatever term comes to be used) may amount to careful assessment along various personality dimensions; and clinicians, in their communication with patients, will have to find language to describe dimensional information and develop ways of communicating such information to patients, with less emphasis on categorical diagnoses. At present, many patients think that a central role of a physician (and sometimes a psychiatrist) is to provide a diagnosis, a simple name implicitly referring to a discrete category rather than a dimension. It may also take some time before patients and the communities from which they are drawn, come to grasp this alternative dimensional way of thinking
- (g) If primary diagnoses are to be made in terms of underlying traits, expressed dimensionally, it is likely that the various diagnostic categories recognised at present will show considerable overlap with each other when reconfigured in terms of underlying traits. There is already a good deal of evidence that this is the case, although not yet collected together in systematic fashion. For examples underlying traits for “schizophrenia” share many features with those for dyslexia (although with obvious differences). A psychiatric typology based on enduring traits may thus be very different from, and probably simpler than current diagnostic systems.

- (h) All disorders/syndromes so defined are likely to reflect interplay of brain processes within an individual with recent or distant life events that the individual has experienced. These disorders then reflect what that individual's CNS is capable of, but also the impact on that capability of those life events. However extreme those life events, the neural processing of those life events is taken to be relatively normal, unless proved otherwise (although the repertoire of personal abilities may differ from one person to another, as constrained by individual features of their brain).
- (i) Very few psychiatric disorders – as defined here – would have distinct *neuro*-pathology. Any departure from population norms in cellular structure or similar variables are likely to be quantitative shifts in the normal mix of cellular variables, not dramatic qualitative differences, such as those recognised by a neuro-pathologist. Psychopathology would then be seen as pathology of “whole-person functioning”, a concept radically different from neuropathology. Admittedly, some so-called mental disorders (such as Alzheimer's disease, or some forms of epilepsy) may be exceptions, where there is clear neuropathology at the cellular level. Such disorder can as easily be dealt with by neurologists as by psychiatrists. The converse may also be true, that disorders usually dealt with by neurologists (e.g. Tourette's syndrome/OCD) might fit better into definitions given here for psychiatric disorders.
- (j) Overall the scientific basis of psychiatry is then clearly different from that of neurology. The former *could* be viewed as “dynamic neurology” or “functional neurology”, without physical damage or distinct pathology at the cellular level. The latter (“classical neurology”) usually *does* have such underlying cellular pathology, a lesion, or a pathological process. This differentiation of the respective roles of psychiatry and neurology would in many cases, be likely to have implications for the best type of treatment favoured in each discipline,