



ORIGINAL ARTICLE

A logical-pragmatic perspective on validity

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Background: Despite being often taken as the benchmark of quality for diagnostic and classificatory tools, ‘validity’ is admitted as a poorly worked out notion in psychiatric nosology. **Objective:** Here we aim at presenting a view that we believe to do better justice to the significance of the notion of validity, as well as at explaining away some misconceptions and inappropriate expectations regarding this attribute in the aforementioned context. **Method:** The notion of validity is addressed taking into account its role, the framework according to which it should be assessed and the specific contents to which it refers within psychiatric nosology. **Results and Conclusions:** The notion of validity has an epistemological thrust and its foremost role is distinguishing correct reasoning and truth from what is irrational or false. From it follows not only that ‘validity’ always refers to elements of knowledge and rationality such as arguments, inferences and propositions, but also that the appropriate frameworks to assess ‘validity’ are logics and scientific methodology. When the validity of a psychiatric diagnostic category is at stake, the contents to which it refers are those relevantly related to the notion of ‘diagnostic concept’. The consequences of our reading on the notion of ‘validity’ are discussed vis-à-vis the challenges faced by psychiatric nosology in order to have its diagnostic categories validated.

Keywords: validity, nosological validity, psychiatric classification, psychiatric diagnosis, psychiatric nosology, epistemology.

DIAL PHIL MENT NEURO SCI 2009; 2(2): 40-44

INTRODUCTION

Validity is probably one of the most often used and, yet, one of the most ambiguous terms employed to refer to the goodness of diagnostic and classificatory tools in psychiatry. Additionally, although increased validity for psychiatric diagnostic categories is one of the most expected progresses for future revisions of DSM and ICD, this is acknowledged as a poorly worked out notion within psychiatric nosology. Indeed, even experts admit the lack of a clear idea of the basis on which the validity of diagnostic categories should be claimed (Kendell, 1989; Rounsaville et al., 2002; Kendell and Jablensky, 2003). The typical approach to the topic of ‘validity’ in the context of psychiatric nosology has been the proposition of assessment procedures or objective criteria to be observed in order that the validity of a psychiatric diagnostic category can be determined. Among these we could mention the well-known works of Robins and Guze (1970),

Kendler (1980) and Andreasen (1995), where the association to past, current or future variables (either of clinical or of biological relevance) is argued as the basis of the validity of those categories. Notwithstanding, the grounds for these proposals are not completely clear. In fact, there can be hardly found any explicit and thorough discussion either on how these proposals are supposed to provide validity to psychiatric diagnostic categories or even on the conception of ‘validity’ they endorse.

ARE OUR VALIDATION STRATEGIES VALID?

One possible interpretation of the aforementioned proposals could be that they are underlain by a conception of ‘validity’ which is akin to the notions of ‘meaningfulness’ or ‘significance’. Indeed, while scientific concepts (diagnostic categories included) are always required to be

non-trivial, their association to other variables is certainly a means to meet this condition (provided that these associations take place in a distinctive way across scientific concepts, of course). In this regard, although only Kendell and Jablensky (2003) are explicit in requiring these associations to be distinguishable from one diagnostic category to another (as well as to normality) we might here assume that neither of the other proponents of such criterion of validity is claiming otherwise. Accordingly, it would be reasonable to acknowledge that all of those proposals provide implications and meaning to the categories considered. However, besides the fact that the identity between '*meaningfulness*' and '*validity*' lacks appropriate discussion in the context of psychiatric nosology, it is not clear at all if this is what is actually meant by those authors. Indeed, there remains room for an alternative hypothesis. Realist ontological assumptions are perhaps the reasons why those biological and clinical features were linked to the validity of psychiatric diagnostic categories. The association between a given diagnostic category and, let us say, a familial predisposition or a certain course over time for example, is maybe thought to provide external evidence that the diagnostic categories considered are '*actual and objective entities*', and not merely descriptive artifacts. In this case, the notion of '*validity*' could be somehow identified to a naturalistically biased idea of '*true existence*'. Surely one could argue that, as much as for the hypothesis in the previous paragraph, these associations would render psychiatric diagnostic categories non-trivial. Nonetheless, what seems to be at stake here is the hypothesis that '*meaningfulness*' and '*implication*' are insufficient to validate psychiatric diagnostic categories, their existence as natural entities being required by nosologists as well. Unfortunately, as we have previously stated, there are no grounds to suggest that psychiatric nosologists bear either of these views about validity or that they share these views among themselves. As a matter of fact, we should not even take for granted that the proposition of those strategies and criteria to assess the validity of a psychiatric diagnostic category is underlain by an adequate appraisal of the meaning and the role of that attribute. One

could suspect, for example, that those proposals were not actually framed on the basis of a thorough analysis of their significance. Instead, just like psychiatry has borrowed the nomenclature concerning '*validity*' from psychometrics, it is conceivable that the currency of '*validity theory*' in psychometrics has been harmfully excusing psychiatric nosologists from considering the meaning of '*validity*' in their own field. Because of the lack of discussion on what is meant by '*validity*' when we are referring to a psychiatric diagnostic category, any procedure or objective criteria proposed to assess that attribute runs the risk of replacing its meaning and, consequently, the risk of ulterior misuse. Indeed, the steady progress of psychiatric nosology clearly requires us to consider what would be a *valid conception* of '*validity*' when this attribute refers to its diagnostic categories. This is a prerequisite to the assessment of how sound are any strategies or criteria put forward to their validation. In the following we attempt to provide the means for that by making explicit what we believe to be entailed by the notion of '*validity*'.

EPISTEMOLOGICAL CHARACTER, LOGICAL FRAMEWORK AND PRAGMATIC CONTENT

A first key point to be noted about the overall notion of '*validity*' is that it has a fundamentally epistemological character. As a matter of fact, despite being loosely seen as akin to the ideas of goodness, adequacy and legitimacy, it includes aspects that make it more specific when compared to all such related attributes. Alike each of them, the notion of '*validity*' may reflect an evaluative judgment about something, which could be taken as an ethical or aesthetical dimension of '*validity*'. However, it mainly refers to the soundness of this judgment. Indeed, the endorsement offered by the term '*validity*' to any entity or object is somehow parasitic to the validity ascribed to the inferences and propositions made about them. Clearly, all this bears major implications. First of all, once it is recognized that the genuine focus of the notion of '*validity*' is distinguishing correct reasoning and truth from what is irrational or false, assessing that attribute must clearly take into account the frameworks in

which the judgments considered are embedded and formulated. For their turn, these frameworks vary according to the sort of epistemic interest at stake. In formal logics, for instance, what is epistemologically relevant is the soundness or the cogency of the arguments themselves, i.e., the correctness with which conclusions can be inferred from premises, regardless of their actual value of truth. Accordingly, as it is reasoning itself that is under consideration, the compliance of a given argument to logical rules suffices to determine its validity in this context. Within science, on the other hand, factual knowledge assumes a central role. As a consequence, scientific methodology — which is in charge of framing the production of knowledge and assessing its validity in this field — must consider more than the reasoning implicated itself. In such domain, the validity of an argument, as well as of the inferences and conclusions contained on it, can only be established if one additionally takes the truthfulness of the premises carefully into consideration. In that regard, ‘*validity*’ is not an essentially different attribute when it applies to psychiatric diagnostic categories. Even in this particular case, ‘*validity*’ keeps its epistemological character and should be ascertained within the broad framework of formal logics and, on a stricter basis, according the rules of scientific methodology. Surely, this is not to be taken as completely unproblematic. In fact, the very issue of what conception of science and what theory of knowledge are (or should be) at play within psychiatric nosology can be itself very challenging. However, the acknowledgement of an epistemological character for the notion of ‘*validity*’ poses an additional implication that brings about a debate more specific to that field. Namely, since ‘*validity*’ is an epistemological notion, assessing this attribute requires awareness of what contents are relevant and expected to be known, whatever is the context or the subject matter at issue. Accordingly, when psychiatric nosology is at stake one of the most critical questions is: after all, what is up to be legitimated about its diagnostic categories? In fact, this is a simple but tricky question, as putting these diagnostic categories on the focus of the validation process may lead one to suppose that what is at stake is

their status as ‘*real things*’. Of course, any assumption about their ontological status is a legitimate topic for ‘*validity*’ assessment. But since they do not encompass all the meaning of these diagnostic concepts, they should not be taken as the ultimate focus of validation within psychiatric nosology. Indeed, such a pitfall could be easily circumvented if only we kept in mind that the epistemological character of ‘*validity*’, as well as the logical (or methodological) framework in which this attribute should be assessed, are open to the evaluation of arguments, inferences and propositions, but not to the evaluation of ‘*things*’, ‘*entities*’ or ‘*objects*’. Accordingly, even when the ontological status of those diagnostic categories is under consideration, it should be seen as a particular hypothetical proposition among many others that could be formulated about those categories. However, whereas each inference somehow related to a given psychiatric diagnostic category is either valid or invalid, it is obvious that not all of them are supposed to support the validity of the category considered. For instance, showing that the proposition “*people with schizophrenia pay fewer taxes*” is valid do not lead us any closer to the validity of this diagnostic category. All in all, the validity of a diagnostic category in psychiatry should be understood as the same as the validity of the propositions that are critical to our views and our interest in that sort of scientific concept. Thus, at the same time as the criteria to be considered in the distinction between valid and invalid diagnostic categories are manifold, they should arguably be selected on an as pragmatic basis as the ones from which the notion of ‘*diagnostic concept*’ emerges. If our analysis is correct, understanding the notion of ‘*diagnostic concept*’ and developing a framework to deal with it soundly are the most significant challenges to be faced by psychiatric nosology.

A NON-ESSENTIALIST NOTION OF ‘*DIAGNOSTIC CONCEPT*’ AND NON-DISCRETE PSYCHOPATHOLOGICAL PHENOMENA: WHEN OUR PROBLEMS BEGIN

The notion of ‘*diagnostic concept*’ is, undeniably, a complex one. The variety of ideas

evoked by this term includes not only features traditionally linked to the concept of *'disease'*, but also elements relevant to medical practice. Prognosis, therapeutic response, etiology, pathogeny, existing disability and suffering, as well as a negative value, are just some of the aspects implicated. However, at the same time as there is no clear-cut and undisputed definition of what is a diagnostic concept, psychiatric disorders are typically hard to distinguish from each other (or normality) as regards one or many of those aspects. Rather than an exception, a graded variation of their expression among different patients and different disorders is the rule. Additionally, any given diagnostic category usually complies to some of the characteristics of a prototypical *'diagnostic concept'*, but not to many other of the required features. For example, a diagnostic category proven to have a typical natural history can eventually remain elusive to all attempts of neurobiological explanation.

It would surely be comforting to discover that a certain diagnostic category, established on descriptive basis for example, has neurobiological and prognostic features which are unique and which aptly distinguish it from other disorders. Besides the multiple supports (robustness) it would be thus shown to have, the nosological unit evidenced through the synchronicity of those various relevant aspects of a disorder would satisfy even the most optimistic expectations about how organized the description of nature can be. Additionally, categories which simultaneously meet many of those requirements would certainly have a notable power of synthesis, being cognitively economic and advantageous for pragmatic use. However, while many somatic disorders were not proven to conform to these tall order nosological standards, the supposed higher complexity of mental disorders argues for an even more judicious approach as regards their validity.

Currently, the non-discreteness of psychiatric diagnostic categories and the psychopathological continuum among individuals have been fundamentally let untouched as regards to their nosological meaning. To our knowledge, with the exception of Kendell and Jablensky's views on validity (2003) — that lead them to conclude

that this feature makes our diagnostic categories invalid — no other conceptual framework about *'validity'* or about *'diagnostic concepts'* has been put forward to address that point. At the same time different criteria and statistical techniques are expected to eventually prove their discreteness.

On the other hand, various *'sorts of validity'* are mentioned in the pertaining literature (concurrent validity, predictive validity, content validity and construct validity), clearly aiming at safeguarding diagnostic categories that comply to some but not all of the aspects required by any presumably ideal *'diagnostic concept'*. Of course, saying that a given diagnostic category is valid in some ways, but not others, is a legitimate recognition of its usefulness and meaningfulness. Although from the logical point of view this is in perfect agreement with validity being an attribute of arguments and propositions, it is a risky maneuver when one lacks an adequate understanding of what sort of proposition about our diagnostic categories are worthy to consider. Indeed, as previously suggested, if we accept that the epistemological role of validity assessment must have pragmatic constraints, many valid propositions about a given diagnostic category are irrelevant to psychiatric nosology. But even riskier is the fact that ignoring the essentials about the notions of *'validity'* and *'diagnostic concept'* may lead us to disregard the relevance of important information about those categories on the basis of an exclusive attention to traditional strategies (*'sorts'*) of validation.

CONCLUSIONS

Whereas the diversity of references and information necessary for understanding and intervening on mental disorders cannot be overlooked, the fact that the latter are seldom or never proven valid according to all of the expected aspects should not simply lead to skepticism. Our epistemological interest in the field should be protected from the stringency of essentialist and naturalist views of the notions of *'diagnostic concept'* and *'validity'*, at the same time as their pragmatic embedment and directedness should be kept in mind. Possibly, this would give place to more lucid approaches to the subject. For in-

stance, acknowledging that most variables (both dependent and independent ones) are associated to psychiatric disorders without specificity should make us think of how much alike to any given model of '*diagnostic concept*' a psychiatric disorder must be in order to be acknowledged as a valid diagnostic concept. Accordingly, it would be critical to consider whether those various underpinnings of validity are considered one by one in isolation or jointly as a whole, in a graded scale or in an all-or-nothing basis. Graded estimates of validity could perhaps be suitable. Although alternative formulations for our diagnostic categories must remain an important track to follow, less naïve and more pragmatic expectations on validity are provisionally appropriate. Grounding clinical practice on aspects of the disorders which are known to be useful and meaningful, irrespectively of being faulty as regards other aspects, is not only usual but must also be acknowledged as desirable if gains are evident.

In order to prevent future mistakes, the awareness that the notion of '*diagnostic concept*' has pragmatic underpinnings should lead us to recognize that the validity of a psychiatric diagnos-

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tic category is an arguably unstable and context-dependent attribute. Similarly, if logics and scientific methodology are really the frameworks in regard of which validity should be assessed, one must be aware that they are themselves subject matter of much debate.

We believe the reading here provided about the notion of validity is sufficiently robust from the formal point of view, providing a helpful guidance to its practical use in psychiatric nosology. At the same time, we believe it is flexible enough to allow its utilization in the several contexts diagnostic concepts may be employed.

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Note: This paper is a slightly edited version of the poster presented at the 12th Conference of the International Network for Philosophy and Psychiatry (INPP), held in Lis-

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