Towards a theory of scientific understanding in psychiatry.

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The aim of this paper is to take some steps in developing a philosophical approach to scientific understanding in psychiatry (in its relation to medicine more generally). In the paper, I search for an answer to the question what it means for a psychiatric condition to be “scientifically understood”. In order to get an answer to this question, I will deal with further questions, such as: What makes “scientific understanding” in psychiatry “scientific”? What makes scientific understanding of a psychiatric disorder different from other kinds of understanding? What is the place of scientific knowledge and of (personal) experience in the scientific understanding of psychiatric disorders? Is there a distinction to be made between scientific understanding in scientific practice, and scientific understanding in clinical practice? How do these relate? Further, can a psychiatric condition be understood without being explained, or be explained without being understood? And finally, in what sense is the situation different from somatic medicine?

In answering these questions, I will on the one hand rely on the distinction (originating from Karl Jaspers) between psychiatric knowledge which is based in explanations, and psychiatric knowledge which is based in empathic understanding. Further, Kendler and Campbell (2014) recently argued for a third pathway to knowledge in psychiatry, which is supposed to be able to make the bridge between explanation and empathic understanding: “explanation-aided understanding”. I will discuss the usefulness of the distinction between these three kinds of knowledge, and show how it can help in developing an appropriate philosophical approach to scientific understanding in psychiatry. On the other hand, I will also rely on the literature on explanatory pluralism from philosophy of science to defend my point of view.

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There is a long running debate whether the concept of mental disorder is value-laden. I argue that some of the dispute can be dissolved by semantic analysis. The gist of my argument rests on a theory of reference fixing: humans have a natural dysfunction detecting mechanism.

Pascal Boyer (2011) argues that when some mental functions are not working properly they are intuitively detected and deemed as mental disorders the world over. I claim that we also fix reference to some mental disorders intuitively. There are two aspects here: an intuitive detecting mechanism that fixes the reference and culture-dependent explanatory models. The mechanism that detects dysfunctional behaviour is possibly evolutionary selected and makes the reference-fixing process relatively theory and value free. When some behaviour does not match our intuitive expectations, we fix reference to it and thereafter give it varying culture-dependent explanations. A causal theory of reference can explain this since it cuts off the link between descriptions people associate with a term from its reference. On the other hand, some culture relative disorders depend on folk-psychological descriptions. Descriptivism explains the semantics of these terms since it does not allow contradicting descriptions to be attached to the same referent. As a consequence, a member of a linguistic community is not necessarily aware how her term has been fixed and to what it refers. Thus a hybrid theory of reference is needed to account for the use of disorder terms. The upshot of the semantic analysis is that psychiatric research looks for the true referents of folk-psychological disorder terms. The aim is to open the dysfunctional “black boxes” and replace folk descriptions with causal explanations.

REFERENCES

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Are Mental Disorders Illnesses? The Boundary Between Psychiatry and General Medicine

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Are mental and physical disorders meaningfully comparable? Are we are entitled to characterize psychiatric disorders in terms of illnesses? Traditionally, most attempts to define what counts as an illness rely on some notion of normal functioning that has been altered or disturbed, where the “norm” is established either from an evolutionary or statistical perspective. In this sense, the substantial distinction between somatic and mental disorders may just reflect different stages of development within medical disciplines. In general medicine, clinicians have a clear idea of how organs normally function and thus can detect
illnesses smoothly or with a small margin of error. The psychiatric case looks prima facie different: we currently lack an ideal model of brain functioning and the high variability among patients renders the diagnostic process particularly tricky. This argument reduces the distinction between psychiatry and general medicine to a practical matter.

The main goal of this paper is to assess the argument above by showing that it stems from an overly simplistic conception of medical practice. On one hand, the diagnostic process in general medicine is not as straightforward as it initially appears, as some interesting studies on error and cognitive bias have recently shown. On the other, the core distinction between psychiatry and general medicine does not simply rest on practical issues: rather, the former exhibits some methodological peculiarities that are rejected by other disciplines within the medical field. The paper is divided in four sections: in §1 I motivate the need for more theoretical precision in defining the notion of illness, making the case compelling for psychiatry. In §2 I discuss some empirical studies on diagnostic error and cognitive biases in general medicine, and in §3 I evaluate whether these results can be applied to psychiatry. Finally, in §4 I outline a medical model – inspired by Murphy (2006) – that aims at encompassing both somatic and mental disorders. In particular, I argue that in order to incorporate psychiatry within general medicine we need to adopt a multi-level, holistic and dimensional approach to illness.

Remodeling Psychopathology: The Limits of Latent Variable Approaches

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There are several consequences of the DSM approach to classification (i.e., patient heterogeneity, excessive comorbidity, extensive use of NOS diagnoses, lack of specificity of external validators) that are taken to be responsible for the lack of progress in psychiatric research (Hyman, 2010; Lilienfield, 2014). For many, the solution to this problem involves the data-driven development of a structurally valid classification through latent variable modeling (Krueger & Eaton, 2012). The idea is that this kind of classification would map more closely onto the causal structure of psychopathology and thus facilitate research aimed at discovering the underlying causal mechanisms producing overt psychopathology within individuals.

Drawing on recent work in psychometrics, I will challenge this line of reasoning. In particular, I will argue that even if we did find higher-order or bifactor models fitting the data particularly well, there would still be problems with certain substantive realist interpretations of the identified factors, or “mental disorder constructs”. Unless the population level models are locally homogenous, and I will argue we don’t have reason to assume that they are, the basic problem with traditional psychological constructs and mental disorder constructs alike is that, even on a realist reading, they are multiply realized, etiologically heterogenous, and can only be invoked to explain differences between individuals, not the causal genesis of behavior or
symptoms within individuals. That is, there is no one causal mechanism or process representing General Intelligence or General Psychopathology (Lahey et al., 2012; Caspi et al., 2014), for instance, within each individual of the population, even if our models seem to suggest that. Accordingly, we have to look elsewhere, namely to idiographic causal network approaches (Borsboom & Cramer 2013), in order to identify homogenous groups of patients that are likely to be of use in research aiming to find mechanisms causing psychopathology within individuals.