Epistemology of Psychiatry

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Abstract
In historical and epistemological terms, psychiatry is a new discipline born during the 19th century. Rooted in both the natural and social sciences, psychiatric objects of inquiry, namely mental symptoms and mental disorders, are hybrid, constituted by the blending of components arising from disparate sources of knowledge ranging from the biological to the semantic in its widest sense. This poses problems for psychiatric research and therapy. Whilst conventional pluralism may be a convenient approach to manage aspects of psychiatric practice, it lacks the capacity to analyse psychiatric objects in their entirety. For the latter, psychiatry demands a new, tailored regional epistemology. This paper outlines the main features of an epistemology specific to the needs of psychiatry. It highlights the relational approach that needs to be taken and illustrates the usefulness of this approach by analysing the structure of psychiatric objects, exploring the manner in which they may be inscribed in the brain, and identifying the need to periodically recalibrate the language of psychiatry.

Why an Epistemology of Psychiatry?
As a hybrid discipline, straddling both the natural and the human/social sciences, psychiatry faces critical and unique issues concerning its research programme and praxis. On the one hand, following the ‘natural sciences’, research is focused on determining the causes of mental disorders. In line with the medical approach, correlations are sought between ‘mental disorders’ or ‘mental symptoms’ (understood as signs of or proxies for neurobiological pathology) and putative brain addresses. On the other hand, following the ‘human sciences’, research seeks to understand why society considers certain behaviours deviant as well as the reasons why certain people develop mental afflictions [1]. The issues raised by this deep blend of the natural and human sciences are complex and cannot be handled by conventional ‘pluralism’ [2] or by the claim that psychiatry needs ‘different models’ [3]. What needs unveiling is the manner in which this blend occurs within both the epistemological apparatus of psychiatry and the very structure of psychiatric objects themselves. Firstly, to understand why this is, we need to briefly review what we mean by psychiatry as a discipline.

Psychiatry is a new discipline. It was constructed during the early 19th century under the aegis of medicine. Before then, ‘alienism’ – as it had previously been
termed – referred to the practice of dealing with madness or mental alienation carried out by many social agents. Thus, the very notion of madness was a social one, its definition dependent on the views that society formed as to what constituted ‘normal’ behaviour. Within each historical period, such prescriptions depend upon the prevailing Weltanschauung, societal fashions, religion, political climate and cultural factors, amongst other things. The eventual adoption by 19th-century physicians of the view that madness was best conceptualised as a ‘disease state’ turned psychiatry into a ‘scientific’ and therapeutic enterprise [4].

Psychiatry is currently viewed as a discipline that deals with the understanding and management of the phenomena called ‘mental disorders’. In theory, ‘understanding’ should mean knowledge based on the apprehension of an object in terms of its historical, social, biological and psychological context [5, 6]. In psychiatric settings this is reflected in the superficial appropriation of the ‘biopsychosocial’ model [7]. In practice, however, the assumption that irrespective of culture all human brains are the same encourages biological psychiatrists to consider understanding as tantamount to neurobiological causality [8]. Hence, the addition of social or cultural variables to the explanatory equation can only contribute minor patho-plastic effects. The hybrid nature of both psychiatry and its objects suggests that social and cultural variables may intervene much earlier in any causal cascade (more on this later). It is this point that needs some unpacking. Bringing us back to the hybrid nature of the discipline, it raises the crucial issue revolving around the range and nature of the different origins of psychiatric knowledge, and whether or how they can be apprehended in an integrative fashion.

What does it actually mean to apprehend the meaning of madness in the historical, social, biological and psychological context? This has generally been answered by addressing each of these contexts separately. In other words, narratives in each of these fields have been constructed to answer the question in a coherent way, each admitting to different extents to some contribution from the others. Thus, a biological narrative might understand madness in terms of brain pathology, the development of which may be influenced by a range of psychosocial factors. On the other hand, a psychological narrative might understand madness as an expression of personal internal conflicts and perhaps allow some biological (e.g., genetic) vulnerability to contribute to its manifestation [9]. And social narratives might understand madness as constructs developed to fulfil particular needs of societies within different historical periods, but might again admit to some contribution of biological/psychological factors, and so on [10]. Such answers, however, immediately raise two important issues.

Firstly, it is apparent that there remains a significant disconnection between such narratives and their corresponding research programmes. Thus, whilst acknowledging an influence of or a contribution from other contexts, the central understanding of madness is driven by the framework of the specific narrative. This is reflected in the development of specialist disciplinary divisions such as biological psychiatry, psychoanalytic psychiatry and social psychiatry, with each propounding its own views concerning the nature and management of madness. This parallel growth, however, discourages serious engagement in debates between such divisions.

Secondly, and related to this, what seems to be universal to these independent narratives of apprehending madness is the relative paucity of work on how the other contexts might fit in with their predominant framework. Thus, for example, in the biological narrative, the question of how psychosocial factors might influence the development or manifestation of madness is rarely explored. Similarly, the psychological narratives, beyond an acknowledgement of other contributory factors, may not expend much effort on researching their possible mechanisms. In other words, the nature of the relationship between these different narrative contexts is generally not addressed. Again this highlights the point that despite an official claim to wider contexts being involved in the apprehension of madness, such contexts are understood in what are essentially independent ways.

Whilst such disconnection between different narratives encourages the current pluralistic approach to psychiatric research and understanding, the validity of such an approach must be examined [2]. Firstly, it becomes easy to forget that this disconnection is in fact contrived and does not reflect the ontology of the objects of inquiry. This inevitably leads to debates concerning which narrative is the ‘true’ or ‘correct’ one and detracts from questions as to how they might integrate. Secondly, and crucially, it hides or ignores the actual interdependency of these narratives, an interdependency that has been critical in the construction of psychiatry and psychiatric phenomena in the first place and that, perforce, continues to underpin the discipline and its subject matter. It is this interdependency that is the essential issue here. Earlier, it was recalled that madness developed as a social construct, that is, its definition and categorisation grew out of the views and beliefs about human behaviours and
mental states formed by society within specific historical periods. In other words, madness is defined in terms of prescriptions and value judgements, and, in turn, these can only be handled by the human sciences.

Once madness has been configured this way, that is, its behavioural boundaries have been prescribed according to the ongoing values entertained by the human sciences of a given period, the natural sciences become mobilised. It is only at this point that the natural sciences can explore the relationship between these behavioural configurations and the human body. And, it is only then that any changes found can be deemed ‘pathological’. The findings of the natural sciences (i.e. the inscriptions of the configurations in the brain) do not and cannot by themselves produce definitions of mental disorders. This is most immediately evident when we consider ‘behaviours’ that were once called ‘mental disorders’, such as morbus democraticus, drapetomania [11] or indeed homosexuality. They illustrate very clearly the constructive powers of social and historical forces in the determination of certain behaviours as pathological. In the case of homosexuality, viewed as a serious mental disorder since the second half of the 19th century (strongly defended by Krafft-Ebing and Kraepelin) and following its inclusion in an early version of the DSM series, various concomitant biological markers have been postulated, though these could never be part of the decision as to whether or not it was a mental disorder [12]. This decision was taken on the basis of social, moral and economic arguments, amongst others. Thus, the ‘abnormal’ nature of certain mental states and behaviours is determined on grounds that are studied in the human (not the natural) sciences, i.e. in those disciplines seeking to understand the ways that individuals and societies perceive, value and make sense of their world at any one time.

Once a behaviour is demarcated as abnormal by social prescription, the natural sciences take over and search for associations between it and brain states and functions. At some point in this process, abnormal becomes pathological, that is, its meaning is taken over by a statistical correlation showing a connection between the behaviour and a brain address. At this very moment, the semantic (in its wide sense) and symbolic aspects of madness and its social origins become obliterated by the process of its naturalisation [13].

It is, however, essential not to lose sight of the fact that both the semantic and the organic components of the psychiatric object should be preserved. The mental states and behaviours that societies choose to exclude or demarcate constitute a heterogeneous group. Some will be behaviours whose deviancy is generated by a primary disorder of the brain; others will result from emotional reactions to symbolic conflict, yet others will be behaviours that societies want to exclude in the name of higher principles of social order [14]. In all cases, the semantic and organic components are present and interactive, but their relative value differs.

Understanding these various patterns of interaction is one of the central tasks of psychiatry. It should clarify how issues pertaining to the human and natural sciences become interwoven in the various ‘objects of inquiry’. This is where conventional pluralism is limited. What we have are objects of psychiatric inquiry (whether we talk about madness, mental disorder, mental symptom or behaviour) that are in fact complexes, that is, hybrid objects themselves, configured to different extents by elements from multiple sources derived from both the human and natural sciences. These heterogeneous elements together are constitutive of our psychiatric objects of inquiry. Independent narratives, arising from the pluralistic approach, by definition are only able to depict specific aspects of such complexes, aspects which – depending on the narrative and on the object of inquiry – will invariably be limited if not misleading in scope. Furthermore, assumptions concerning the meaning and understanding of the object (mental disorder, mental phenomenon, etc.) carried by one narrative (e.g. biological) will naturally have wider ramifications in subsequent treatments and research programmes.

The hybrid nature of psychiatry as a discipline and its objects of inquiry (mental disorders and mental symptoms) thus raise important issues for research. These issues arise from the multifarious approaches that have been developed to explore and explain this field. And these issues are complicated by the very nature of the interrelationships between these approaches. This is because it is via these interrelationships themselves that psychiatry is and continues to be constructed and shaped, both as a discipline and in subject matter. In other words, what constitutes psychiatry and its practice, and what we understand by mental disorders and mental symptoms, is determined by a complex interaction between and blending of ‘knowledge’ from different sources, with different levels of commensurability [15]. It is for this reason that in psychiatry research must continue to explore the nature and structure of its objects of inquiry from the perspective of all the elements that constitute them and their interrelationships. In other words, in psychiatry research also demands a focus on its epistemology.
What Is Epistemology?

Having tried to make a case for the importance of the epistemological approach in psychiatric research, we need to clarify now what it is that we mean by ‘epistemology’. Defined as ‘the theory or science of the method or grounds of knowledge’ [16], the term is relatively new (it was only coined in 1854), but the concept to which it refers is ancient. Human collectives have, from very early on, asked about the origin of their ‘knowledge’, about how it is possible for human beings to know what they know. Knowledge here is defined broadly, referring to the set of narratives, beliefs and claims passed on from generation to generation, allowing such collectives to successfully survive in the world. In the classical epistemologies, the gods may have imparted such knowledge piecemeal or wholesale. For example, in the Platonic view, knowledge was ‘remembered’ (via anamnesis) because souls (now imprisoned in bodies) had once shared it with God. Aristotle, on the other hand, saw knowledge as something which human beings obtained piecemeal. Later epistemologies (e.g. the Christian one) have therefore oscillated between these two poles (Augustine vs. Aquinas) [17].

With the secularisation of Western culture, divine explanations no longer sufficed. The work of all the great Western philosophers, at least since the time of Descartes, has to a certain extent revolved around epistemology. Whether privileging the structure of the world or of the person (i.e. their perception, intellect or memory), the question has been what renders knowledge steady, lasting, reliable, true, etc. For example, for Kant the noumena (the essential objects of the world) were unknowable and beyond human reach. All that could be known were phenomena captured on the basis of specific mind frames and structures (the categories). To the supporters of the Scottish philosophy of common sense, the mind of man was perfectly adapted to the world, and hence knowledge was guaranteed. Irrespective of the ways in which arguments have been framed to define knowledge, epistemology remains the study of the nature, limits and justification of knowledge.

Epistemology of Psychiatry: Directions and Approaches

If epistemology is about examining the origins and legitimacy of knowledge in general, then the epistemology of psychiatry has to deal with exploring the origins, structure and legitimacy of psychiatric knowledge and of psychiatric objects, that is, it becomes a form of ‘regional’ epistemology. It is termed regional since it cannot be assumed that the same approach will apply to other fields of inquiry. The objects of knowledge in different areas, clinical or otherwise, will necessarily dictate the specific epistemological approach that is relevant to their exploration. Earlier, it was argued that on account of its straddling both the natural and human sciences, psychiatry was a hybrid discipline, and that its objects of inquiry reflected such an epistemological structure. Constituted by elements rooted in disparate sources of knowledge such as values, organic components and symbols that constantly modify each other, such hybrid objects (i.e. mental symptoms and disorders) fall outside the reach and purview of conventional epistemological approaches that are designed to deal with the material objects of the natural sciences [18].

Psychiatry therefore needs a regional and specific epistemology. Since general epistemology cannot provide the specific instruments required to unpack psychiatric objects, psychiatry must build its own. These tools need to be able to manage descriptions and prescriptions as well as the historicist (diachronic) and structuralist (synchronous) dimensions. The regional epistemology of psychiatry is thus concerned with clarifying the nature of psychiatric objects, which – by determining their kinds (and proportions) of constitutive sources – allows the most appropriate or valid approach to be chosen to ‘handle’ such objects. Questions that need addressing [19] include: what is the nature of psychiatric knowledge? What are the sources of psychiatric knowledge? Where does psychiatric knowledge originate? How legitimate is psychiatric knowledge, or what kind of legitimacy does psychiatric knowledge have? How stable and enduring is psychiatric knowledge? How are psychiatric objects formed? How might they relate to the brain?

What sort of approach should the epistemology of psychiatry take then? From what we have said already, it is clear that taking a similar approach to that of the epistemology of medicine or of general science will be inadequate [20]. To reiterate, this is because the origin, organisation and justification of its knowledge is based on varied sources, some of which in fact remain obscure or unknown. It may be argued that since medicine is also a hybrid discipline, taking a similar epistemological approach is warranted. However, whilst general medicine also spans natural and human sciences, the interrelationships between these are very different, both in the historical construction of the discipline and in its objects of inquiry [21].
The new epistemology of psychiatry will have to give an account of the object and context of inquiry, the role of the interlocutor (i.e. the clinician or meaningful other), and the manner in which these components interact [22]. The new epistemology must therefore search for additional methods and approaches in history, social psychology, anthropology, linguistics and the hermeneutic disciplines, amongst others. Thus, for example, the history of psychiatry provides knowledge about the social processes within which the objects of inquiry have been constructed; the philosophy of psychiatry clarifies the descriptive and definitional power of the language of psychiatry, empirical research calibrates the new definitions against the realities of the human body, and the hermeneutic disciplines show how to include the interlocutor in the very process of constructing and interpreting the psychiatric object. The crucial issue, however, is that these approaches have to be integrative in a meaningful way. Thus, the interrelationships between the different approaches have to be clarified and made explicit, and the findings from one approach have to inform the other approaches.

There are various ways in which the nature of the interrelationships between the sources of knowledge that constitute the objects of inquiry can be explored but, as this paper advocates, an interactional or relational epistemological approach [23] needs to be taken. Here, we just want to discuss two broad approaches, i.e. (i) an examination of the structure of our objects of inquiry and (ii) a process of calibration.

Examining the Structure of Psychiatric Objects of Inquiry

Posing the question regarding the structure of the psychiatric object of inquiry, irrespective of whether this is a mental disorder or a mental symptom, is already recognising not only that there may be different sorts of elements constituting it, but also that some focus needs to be directed towards the relationships between the constituents. Mental symptoms, for example, can be explored from various perspectives [21, 24], but one way is to consider the way in which they may be formed. The Cambridge model of symptom formation has been described in detail elsewhere [19, 25], and here only a sketch will be used to illustrate the approach that picks up on the epistemological questions noted above. In brief, a number of pathways to symptom formation are postulated. A subjective mental symptom such as anxiety, depression, hallucination or depersonalisation can be envisaged as arising from some event leading to a change in the individual’s mental state. Such an event can be externally (e.g. a perceived stress) or internally driven (primary biological alteration). Initially, in a primitive, inchoate preconceptual form, this change permeates the individual’s awareness. In order to make sense of it, the individual needs to interpret/configure the experience. Here, some of the first questions arise. Which factors influence the way in which a particular change in consciousness will be judged and conceptualised? Aside from the cultural and social background shaping an individual’s wider outlook, factors such as personality (e.g. tendency to introspect/analyse, imagination, inner world), education, past experiences and contextual events play a modulatory role. The presence of a clinical interlocutor will, via dialogical exchange, modify the experience further before this is then uttered or otherwise communicated as a ‘symptom’. It is the interplay of such different non-biological factors that constitutes the ‘meaning’ of the experience for the individual, which is why this has been termed the semantic component of the mental symptom.

Subjective symptom formation along this pathway suggests that the factors that shape the original experience are manifold. Moreover, formed symptoms themselves can provide the substratum on which further symptom construction can take place, and the process can continue. What this indicates, however, is that there has to be a complex interplay between the biological signal and the associated mental phenomena. One consequence of this is that because of the different ways in which internal changes can be interpreted, one biological signal can give rise to different mental symptoms. Similarly, it can be envisaged that different biological signals might be configured as the same mental symptom.

This very process of mental symptom formation thus helps to conceive the deep structure of such a symptom. It would include a biological kernel represented by a neurobiological signal related to a site or network in distress, and a semantic shell in terms of the judgements coming into play in constructing the symptom out of the perceived change in mental state. Describing this structure brings to the fore some of the issues around the interrelationships between the different sources of knowledge that constitute the psychiatric object. In this instance there is the biological signal representing the brain or neuronal changes. At the same time there are the judgements shaped by the wider cultural, individual and social world that occur in the mental realm and that are communicated via language. It is the relationship between these disparate sources that forms the crux of our understanding of and research into mental symptoms.
This same epistemological analysis becomes particularly relevant in relation to research on brain localisation of mental symptoms, as in current neuroimaging studies [26]. Such research makes the assumption that a mental symptom issues directly from a particular brain signalling, that is, that there is a relatively one-to-one relationship between a specific neurobiological change and the mental symptom. However, if mental symptoms are envisaged as structures consisting of biological signals configured by wider social and cultural codes, then it becomes imperative to elucidate the extent of the contribution of each component. This means that whilst all mental states are realised in the brain, and consequently all mental symptoms will have brain inscriptions, the degree to which the latter can determine the formation and naming of a particular symptom will vary considerably.

This suggests that there may also be different types of brain inscriptions. From what has been said already, mental symptoms can be ‘represented’ in the brain in at least two main ways. Primary brain representation can occur when the relationship between the brain inscriptions and the associated mental state or symptom is relatively direct. In other words, one can envisage that where the brain signal issues from an original primary lesion or malfunction and gives rise to the changes in awareness that trigger the process of symptom formation, the resultant mental state can be stereotyped, replicable and less prone to interpretation [27]. This might be the case, for example, where hallucinations are triggered by an ictal focus or by the specific location of a brain tumour. In these situations the brain inscriptions can be considered as valid proxy variables and are aetiologically informative.

Secondary brain representation would occur when the relationship between the brain inscription and the associated mental state does not reflect a conventional cause-effect chain (as in the case of primary inscriptions). In this case the pathogenic drive (i.e. the symbols, meanings and reasons that cause the conflict) is to be found in the dialogical semantic space formed by interacting human beings. Such second-order languages do not need to be (and may not be) inscribed in the brain. If they are, temporary inscription of denotations (not of connotations) should suffice [28]. For example, in the case of folie a deux [29] it would be epistemologically crass to claim that the symptoms are inscribed in the same way in both the inducer and the ‘inducee’. The madness of the latter is more likely to be secondarily inscribed.

It follows that determining whether brain inscriptions in association with mental symptoms are primary or secondary carries significant consequences both for treatments and for research. Mental symptoms associated with primary inscriptions are clearly more likely to be amenable to biological therapies, whereas those whose identification is bound up in wider semantic codes may require different sorts of approaches. In terms of localisation research, then, neuroimaging would capture both primary and secondary representations, but the latter would have little meaning as far as the nature of the mental symptom is concerned. Taking an epistemological approach is therefore necessary in order to explore mental symptom structures, to determine the relative contributions of biology and semantics, and to tease out the various factors constituting the semantic codes.

The Process of Calibration

Linked to the previous approach is the issue of calibration. Calibration is an essential aspect of epistemology. It is an acknowledgement of the dynamic nature of the sources of knowledge that feed into a subject. All disciplines need periodic calibration, which consists of matching the resolution power of the language of description with that of the objects of inquiry. This process increases the capacity of the discipline to capture relevant phenomena. ‘Relevant’ are those phenomena whose knowledge increases the epistemic and predictive capacity of the discipline. In psychiatry, the language of description, i.e. descriptive psychopathology, was constructed before 1900. Mental symptoms became the ‘atoms’ or ‘units of analysis’ of descriptive psychopathology. This language was calibrated according to the epistemological requirements of contemporary clinical practice and research. Importantly, it has changed little since [4]. This is in marked contrast to the current research methods in psychiatry – which have increased tremendously in sophistication – such as neuroimaging, neurogenetics and psychopharmacology. Consequently, however, this has resulted in a significant mismatch between the resolution power of the language of psychiatry and that of the instruments devised to capture and measure its proxy variables. This is an important epistemological point. Firstly, it raises questions concerning the validity of correlational research that, on the one hand, captures one variable in fine detail whilst, on the other hand, correlating this with something that has inevitably – with changes in society, culture and language – lost much of its original sense, becoming coarse grained and fuzzy by comparison. Thus, from such a correlational research perspective, it be-
comes imperative that increased effort is also directed at revisiting the language of descriptive psychopathology and what it tries to capture [19].

Secondly, the mismatch between resolution powers and the need for calibration highlight one of the important features of psychiatric objects (mental disorders/mental symptoms) as hybrid objects, namely, their fluctuating structures, that is, their variable stability. This relates to the abovementioned dynamic nature of the sorts of knowledge sources that go towards constituting these objects. If we accept that psychiatric objects are complexes of biological and semantic codes, then, whilst aspects of the biological may more readily be viewed as invariant, the same clearly cannot be said about the semantic space, that is, the interpretation and sense that individuals will put on changes happening to them and their environment. As already discussed, such interpretation, starting at the very experiential level, will depend on contexts spanning the wider (societal, cultural, political, etc.) and personal spheres (concurrent events, past experiences, individual inclinations/biases/outlooks, etc.). By definition, these sorts of contexts are not static. Societies and cultures are constantly changing along with fashions, politics and outlooks, and such changes will play a part intrinsic to the way in which sense is made of internal and external experiences. If interrelationships between different knowledge sources are to be taken seriously, then attention must be paid not only to putative biological signals, but also to the semantic envelopes constituting the objects of inquiry. Thus, in the case of epistemological calibration, this means that the focus needs to be directed at exploring the relationship between changes in such a wider sense and resultant current mental symptoms and mental disorders. This is necessary in order to be able to refine the language of descriptive psychopathology and align it to the needs of contemporary society. In addition, such work can also help develop methods of ongoing fine-tuning of this language in response to changes in the social world.

**Conclusion**

Current emphasis on empirical research in psychiatry has led to some neglect of the conceptual problems that are integral to the discipline and its subject matter. Psychiatry is a hybrid discipline the work of which is rooted in both the natural and the human/social sciences. Psychiatry’s objects of inquiry, that is, mental symptoms and mental disorders, are likewise hybrid objects whose constituents originate from both knowledge sources to form biological-semantic complexes of variable stability. Taking a relational epistemological stance is essential in order to try to clarify such structures and to determine the relative contributions of biological and semantic (social, cultural, individual, etc.) components to them. In turn, this can help to select appropriate methods of managing such structures – whether this be in terms of further empirical research or indeed in terms of developing therapeutic strategies.

**References**