How does a psychiatrist infer from an observed condition to a case of mental disorder?

Maël Lemoine

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Maël Lemoine, assistant professor of philosophy

University of Tours

10 Bd Tonnellé

37000 TOURS

INSERM U930

Equipe 4 Unité 930 INSERM

UFR Sciences et Techniques

Parc de Grandmont Bâtiment L

37200 Tours

IHPST (Paris)

Université Paris I

13 rue du Four

75006 PARIS

Tel. 336 89 84 36 19

email: lemoine@univ-tours.fr

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Summary

The main thesis of this paper is that mental health practitioners can legitimately infer that a patient's given condition is a case of mental disorder without having diagnosed any specific mental disorder. The article shows how this is justifiable by relying either on psychopathological reasoning, on 'intentional' analysis, or possibly other modes of reasoning. In the end it highlights the clinical and philosophical consequences of the plurality of modes of 'inferences to mental disorder'.

Introduction

Many mental health practitioners claim that it is possible to know that someone suffers from a mental disorder without knowledge of the specific mental disorder involved. This sounds either superficial or provocative, and flies in the face of good clinical practice. Foucault once called this the "enunciatory consciousness of madness":

An enunciatory consciousness of madness (…) allows for immediate pronouncements, without any detours through the world of knowledge: 'this man is mad'. Here there is no question of qualifying or disqualifying madness, but only of pointing at it as a kind of substantive existence: there before us, the object of our gaze, is someone who is undeniably, indisputably insane. Madness here has a simple, obstinate and immobile existence, and no identification of its quality or judgement on its nature is required[1].

However, must the claim be rejected? Non-clinicians sometimes 'know' that something is wrong with a person exhibiting unexpected behaviors, without

knowing what is the cause of such behaviors. The same is true with many somatic diseases: when someone runs a fever for several days without any other signs, suffers from fatigue or chronic pain, we may not know what is happening, but take for granted that this is a disease. In psychiatry though, the bet that a token condition is a case of mental disorder without any diagnosis is a lot riskier than in somatic medicine. The main reason is that the history of psychiatry has taught us to be suspicious about uncritical characterizations of conditions as mental disorder. Therefore it seems important for the *scientific* characterization of a condition as a case of mental disorder that it be diagnosed first as a case of a specific, predetermined mental disorder.

The alternative therefore seems to be that either

1) inferences to mental disorder can only be based on a diagnosis of a specific mental disorder,

or

2) diagnosis is arbitrary as a base for inferences to mental disorder.

In the 1970s, Spitzer[2] tried to establish an operationalized definition of mental disorder *per se*[a]. If accepted, it would have provided a criterion for inferences to mental disorder without any specific diagnosis, and, at the same time, a criterion for specific diagnoses to be diagnoses of mental disorders, so that the diagnosis would also suffice to infer a mental disorder. There would have been two modes of inference to mental disorder, direct (so to speak, 'conceptual') and indirect (semiological). My contention is that diagnosis is *not* the only way to characterize something as a case of mental disorder, but the alternative route is not conceptual. Actually, there are *at least* two more means of inference:

[a] Thanks to Steeves Demazeux for drawing my attention to that point.

psychopathological reasoning and intentional stance. Others are possible. These explain how a clinician can infer to mental disorder without diagnosis, but do not question the soundness of diagnostic reasoning when it comes to the recognition of a mental disorder as such. Other consequences also follow for the role of a concept of mental disorder in inference to mental disorder.

1. Inference to mental disorder.

There may be an "enunciatory consciousness of madness", but sticking to such allegedly self-evident statements would mean the end of scientific psychiatry. Besides, not all mental disorders are madness and not all mental disorders are obvious. There must be some kind of justification. It comes under the following form:

$$(d \in D_i) \wedge (D_i \subseteq D) \rightarrow d \in D$$

where d stands for a token condition D for mental disorder, and D_i for a type of pathological phenomena. The 'token condition' is what a given patient brings to the clinic, what she says and how she behaves, but also her life history and current situation. It is the clinical case before it is thought of as a case of anything in particular. The type of 'pathological phenomena' is traditionally a typical set of symptoms, but it can also be psychological processes, and it is not preposterous to think that at least some of them are pathophysiological phenomena.

A mental health practitioner makes an inference to a mental disorder, or MD-inference, whenever she makes the following two-stage reasoning:

(A) show that in d there is an instance of D_i,

and

(B) assume that D_i is a sufficient condition of mental disorder.

The second stage of the inference seems to count for less than the first one from the clinician's perspective, for '$d \in D_i$ ' seems to be what her job is really about. Not all mental health practitioners are adamant that what they recognize and treat are mental disorders, yet all of them recognize and treat something that they have learnt to recognize and treat. D_i stands for this something they recognize and treat, and $D_i \subseteq D$ is an assertion a significant number of them refuse to make. To recognize and treat a condition as an instance of 'major depressive disorder', for instance, does not imply the acknowledgement of major depressive disorder as a mental disorder. This two-stage distinction appears to be the way most of the psychiatrists who acknowledge that the 'antipsychiatry movement' had a point deal with the resultant reservation about terms such as 'mental illness' or even the allegedly neutral 'mental disorder'.

2. Semiological inference to mental disorder.

The most obvious and, it seems, the soundest kind of MD-inference is *semiological*: it treats D_i as a semiological entity that is, commonly, an alternation of equivalent sets of signs and symptoms. In other words, the job of a clinician is to recognize a set of symptoms in her patient's observed condition, and it is this set of symptoms alone that can justify, if it does at all, that the patient suffers from a mental disorder. Psychiatric nosography, under the form of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) [3] and the *International Classification of Diseases* (ICD)[4], or under the form of richer, but less formalized, manuals such as Sadock's [5] or the *WPA Series in Psychiatry: Evidence and Experience in Psychiatry*, recapitulate the various semiological forms of mental disorders $D_1, \ldots, D_n$.

These semiological forms are not necessarily presented through the explicit formulation of a closed list of possible symptoms. In the prototype approach, any case resembling the prototype in significant aspects can be considered a case of what the prototype is a prototype of[6]. This is tantamount to an open and explicit semiological approach.

Symptoms can be assessed quantitatively as well as qualitatively. Examples of dimensional assessments of symptoms include scales for depression such as the Beck Depression Inventory (BDI), the Hamilton Rating Scale for Depression (HDRS/HAMD) and the Montgomery-Åsberg Depression Rating Scale (MADRS). Instead of providing a means to choose between diagnoses, they provide a means to choose more precisely between mild and severe, insignificant and significant forms of a specific mental disorder. In the case of scales of depression, these assessments take a wider set of possible symptoms than the DSM or ICD take into account. In a purely dimensional approach there is no such grouping of dimensional symptoms into nosological entities: the number of symptoms as well as their severity directly provide the basis of the MD-inference.

These approaches, standard, prototypic as well as dimensional, constitute important differences in clinical reasoning. Yet they all come down to subtypes of semiological reasoning. Signs and symptoms are searched for within the condition in question, and these constitute the basis of a further inference to mental disorder.

In its semiological form, a MD-inference defines D_i as a specific symptom or group of symptoms. It is fully justified if and only if

> (A_1) the observed condition actually fulfills the conditions of a specific semiological description (*the diagnosis is correct*),

and

(B_1) the semiological description of type D_i fits the intended scope of the actual cases of D_i (*the diagnostic category is clinically valid*),

and

($B_{1'}$) the intended scope of actual cases aimed at by the semiological description is included in the class defined by the general category of mental disorder (*the diagnostic category is "conceptually valid"*).

(A_1) is the semiological form of stage A of the MD-inference described above, and (B_1) and ($B_{1'}$) together correspond to stage B. In psychiatry, clinicians are supposed to focus on (A_1) while researchers investigate (B_1). ($B_{1'}$) is often referred to as a question for philosophy and social science. For instance, problematic cases for the correctness of the diagnosis (A_1) of Major Depressive Disorder (MDD) might address the presence or absence of anhedonia in a token condition. Problematic cases for the clinical validity of the diagnostic category (B_1) include, for instance, the debate over the so-called 'bereavement exclusion': would the withdrawal of this specified exclusion affect the sensitivity or the specificity of the diagnosis of MDD (see http://www.dsm5.org)? Finally, philosophers and social scientists consider whether anyone meeting the requirements of MDD indeed suffers from a mental disorder[7], and what 'mental disorder' must mean for it to be, or not to be, a case of mental disorder ($B_{1'}$). Those are questions regarding what Wakefield called the "conceptual validity" of a definition[8].

2. Psychopathological inference to mental disorder.

It is surprising that philosophers have focused so much attention on semiology, leaving psychopathological reasoning unattended. Generally speaking, 'psychopathological reasoning' consists in the reconstitution of a token condition in terms of underlying, theoretical psychological processes or mechanisms that possibly account for it. Those processes may be cognitive, interpersonal or psychodynamic resulting in the corresponding psychotherapies of cognitive therapy, systemic therapy, psychoanalysis, and so on.

In psychopathological MD-inference, what links a token condition to mental disorder, is (at least) one type of underlying process D_i among a set of many, {D_1, …, D_n}. Theoretical as it is, the description of psychopathological processes heavily draws from types of psychotherapeutic approach. In cognitive therapies for instance, candidates for D_i are faulty information processing (such as arbitrary inference), selective abstraction, overgeneralization, magnification and minimization, personalization, absoluistic, dichotomous thinking, but also the so-called "cognitive triad", and the "vicious cycle" of social isolation[9].

A type of process, $D_{i,}$ can be, but does need to be, specific to a particular semiological form of mental disorder. For instance the same basic processes can be found in depressive and anxiety disorders (selective abstraction for instance[10]), in other disorders, and in normal behaviors. Other processes might be more specific, such as "catastrophizing" in anxiety disorders[11], which is nevertheless common to general anxiety disorder[12] and panic attacks[13]. One can try to specifically model each kind of cognitive process mental disorders consist in. However, this is not required in order to infer that there is a mental disorder.

Thereby a psychopathological MD-inference takes the following form:

(A_2) aspects of the observed condition can be recognized as an instantiation of at least one defined process,

and

(B_2) the defined process/es is/are pathological.

In (A_2) the clinician seeks and finds clues of any type counting as evidence of the existence of a particular, unobservable kind of process. For instance, the overall direction of a set of value judgments about the self, the world and the future can be counted as evidence for a particular process of magnification of negative events. A systematic kind of reaction, such as the avoidance of eye contact, is a clue in favor of the existence of social anxiety. However, clues are not limited to traditional signs and symptoms and signs and symptoms can be dismissed as irrelevant to the pathological process. For instance, insomnia could be dismissed from a clinical tableau, from a psychopathological point of view, because it is due to night traffic noise. Signs and symptoms are nothing but standardized observed facts pointing towards a label, whereas psychopathological clues refer to something occurring within, which cannot be observed, that is, an internal dynamic. Any fact participating or testifying of this dynamic can be considered relevant from a psychopathological perspective.

In stage (B_2) of psychopathological MD-inferences, pathological processes are considered to be (mental) dysfunctions. Of course there is a philosophical question about the difference between normal and pathological selective abstraction or overgeneralization, for instance. It might be the case that for such processes to count as evidence of a mental disorder, one needs to assume that there are several of them and that they connect into some kind of vicious or self-

disrupting or even self-destructive mental process. No consensus exists yet over these pressing issues, which again, philosophers naturally question.

3. Intentional inference to mental disorder.

Derek Bolton has drawn philosophical attention to intentional phenomena and their disruption as a core object of clinical attention in mental healthcare. To define 'intentional', Bolton refers to the "intentional stance" as defined by Daniel Dennett[14], understood as a special point of view from which explanation of behaviors is made possible by the assumption of intentionality (in the philosophical sense of the 'aboutness' of mental states). Two other points of view are available, that of the physical stance and that of the design stance, both of which are also relevant in the explanation of mental disorders. Bolton thus questions the philosophically received, and sceptical view of vague terms such as 'clinically significant', 'severe enough symptoms, impairment and distress', but also 'maladaptive', 'inappropriate', 'irrational', 'disproportionate', 'deregulated' and 'dysfunctional'. Instead of interpreting these as mere placeholders for a clinician's arbitrary judgments, he suggests that philosophers take them to be real *terms of the art* that should be investigated through the means of intentional analysis.

What clinicians actually investigate are "problems brought by the patients to the clinic"[15], or in some cases by others (relatives, authorities). A problem consists of the entrenchment of a situation and a behavior. Thus the focus is not on the underlying processes, both pathophysiological and psychopathological, that possibly explain what is observed, but on the structure of what is observed. The structure of 'clinically significant' problems to which professional help can

relevantly be brought is expressed under the umbrella phrase of "radical failure of intentionality" [16] or "broken" "meaningful linkages in mental life and behavior"[17]. Such "treatable conditions" nonetheless are "conditions that we wish could be treated/that we would like to be able to treat" [18] rather than conditions that can actually be treated. They thereby depend on what type of intervention (or watch) one considers to be relevant.

Chapter 9 of Bolton & Hill's book illustrates the approach through examples of disorders (schizophrenia, anxiety disorders and personality disorders)[19]. The set of types linking a token condition *d* to mental disorder as such: $\{D_i, \ldots, D_n\}$ does not contain either clusters of signs and symptoms or underlying processes, but characteristic features of interactions, such as 'problem-avoidance', 'problem-destruction' instead of 'problem-solving', failed integration of facts or events, hyper-vigilance, unstable interpersonal relationships, and so on. Intentional MD-inferences are therefore expressed as the following:

> (A_3) The interpretation of the observed situation shows plausible broken meaningful linkages of mental life and behavior

and

> (B_3) a clinically significant level of distress, due to broken meaningfulness, points towards a treatable condition.

It must be noted that from such a perspective, the phrase 'mental disorder' can be construed either as a very broad term, synonymous to 'treatable condition', or as a stricter term, implying biological or psychological dysfunction and referring to a subclass of 'treatable conditions'. The level of distress depends on too many conditions to be assessable in general terms; its assessment relies on the

clinician's views, but also the patient's, his/her family, neighbors, relatives and so on.

This seems to capture a pervasive mode of reasoning in mental healthcare. There is no *a priori* reason why one should reject it. It is very difficult to capture the various types of situation where meaning is so broken, and very easy to rely exclusively on suffering and help-seeking as a base for treatability, although suffering and help-seeking obviously cannot provide justification for an inference to mental disorder alone.

4. What concept of mental disorder plays a role in inferences to MD?

The problem we started from, 'how can a mental health practitioner conclude that a condition is a case of mental disorder without diagnosis?', is easily explained. For a mental health practitioner, any MD-inference other than semiological is an appropriate means to know that somebody suffers from a MD without having diagnosed any specific MD. If the patient's condition displays effects of a plausible psychopathological process or disruption in intentionality or meaning, this suffices to assume that it is a case of mental disorder, notwithstanding the difficulties of interpretation in both cases. Furthermore, these alternative forms of MD-inference justify doubts about solely semiological MD-inference. For instance, some patients do not display the right signs or too few of them to warrant a specific diagnosis, yet clinicians recognize a mental disorder on the basis of either psychopathological or intentional MD-inference. On the other hand, clinicians are justifiably sceptical about potential false positive cases created through semiological MD-inference, for instance when a so-called 'depressive state' is fully understandable through the patient's

environment. Equally there are reservations about both the psychopathological and intentional kinds of MD-inference from the perspective of the semiological approach. For instance, is the inter-raters agreement satisfactory? Is not the 'intentional stance' *hermeneutical* and therefore highly arbitrary? The point is only to cast light on the kind of justification clinicians can provide in favor of, or against, one of these approaches. No one has direct knowledge of what a mental disorder is, therefore, everybody has to rely on some kind of clinical reasoning to assess whether it is present in a given condition. All kinds of MD-inference are rightly questionable, precisely because there are several kinds of MD-inference.

Starting now from the fact that there are several sorts of MD-inference, some interesting philosophical consequences follow.

First, the plurality of MD-inference helps clarify the muddle conceptual analysis gets into when it turns to the phrase 'mental disorders'. What is aimed at by conceptual analysis of 'mental disorder' in psychiatry can be:

> i_1) a recapitulation of the common features of the set $\{D_1, \ldots, D_n\}$ of semiological types of mental disorder, that is, symptoms encountered in psychiatric syndromes. This would result in the formation of an *atheoretical* concept of MD. Only *actual* features should be included in the list, not *possible* ones included in such terms as 'distress', 'inability', 'loss of control', 'loss of pleasure'.
>
> i_2) a recapitulation of the common features of the set $\{D_1, \ldots, D_n\}$ of types of dysfunctional psychological processes. This would result in the reconstitution of a *theoretical* concept of MD, based for instance on a cognitive explanatory model of how mood is regulated, memories are retrieved or screened off, and so on.

i_3) a recapitulation of the common features of the set {D_1, …, D_n} of types of breakages of meaning in mental and behavioral interactions. This would probably result in the closest concept to intuitive and folk notions about MD. This is probably also the most difficult to reconstruct.

ii) a synthesis of the previous recapitulations. Most probably such a synthesis would take i_2 as a basic element of mental disorder, and would derive symptoms and situations from mental dysfunctions. Yet it is also possible to consider that breakage of meaning is central to mental disorder and that positing underlying processes is only an hypothetical approach to what could explain disrupted meaningfulness. One can also stick to semiological sets as the only factual element.

iii) an analysis of the meaning of the term as independent from the various sets of D_i. Those would thereby be bound to a merely clinical role. It is likely that such an analysis would not be conceptual analysis, in the sense of the reconstruction of the received meaning of a term. It would rather be a rational construction over some theory – evolutionary medicine or psychology for instance.

Secondly, precisely thanks to this plurality of MD-inferences and the correspondingly equivocal phrase 'mental disorder', it is possible for one to critically appraise one particular kind of MD-inference. For instance, as Bolton rightly pointed out[20], although Wakefield claims to have explicated the common concept of MD as a "harmful dysfunction", *harmful* implying social norms, *dysfunction* being understood in the evolutionary sense[21], when it comes down to the critical appraisal of one semiological definition, that of MDD[22], surprisingly

the analysis seems to shift from the expected perspective of evolutionary psychology to that of meaningful linkage in the current life of an individual. In our terms, it seems that Wakefield's conceptual analysis criticizes the concept usually referred to in $B_{1'}$ (that of the definition of mental disorders in DSM-III and DSM-IV), by apparently relying on a generic concept of MD akin to that needed in B_2 (underlying dysfunctional process), that in fact relies on a concept of MD very near that referred to in B_3 (broken meaning implying distress).

Thirdly, it is not necessary that there should only be three kinds of MD-inference and that the list of possible meanings of 'mental disorder' is exhaustive. For instance, Murphy is perfectly entitled to bet on the integration of psychiatry into cognitive neuroscience[23]. By doing so he paves the way for a yet nonexistent pathophysiological kind of MD-inference, and a corresponding cognitive-neurophysiological definition of 'mental disorder'. His critique of Wakefield's views as being based on intuition and folk meanings of 'mental disorder'[24] (Murphy & Woolfolk 2000) seems to emanate from the ambiguous scope of the term itself – is it a psychopathological or an intentional notion, or both?. It also seems to reflect the hopes cognitive neuroscience-based psychiatry raises, and the consequent doubts cast on other 'non-scientific' approaches, whether semiological, psychopathological or intentional.

Finally, a short word is necessary about the role of values in the various kinds of MD-inference. Values seem to play a role in the semiological as well as the pathological and intentional. They intervene in the interpretation of the token condition as an instance of D_i (signs and symptoms are constructs as well as effects of psychopathological processes and disruption of meaning). They also intervene in the classification of $D_1, \ldots, D_n$ as pathological, whether each D_i is a

symptom or a set of symptoms, a process or a set of processes, a particular intentional disruption or a set of intentional disruptions. Therefore, the line should not be drawn between 'atheoretical', non-normative semiological inferences and theory-laden, normative psychopathological and intentional inferences. It should be drawn instead between implicit or absent reasoning and explicit reasoning, whatever the kind.

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