Scientific Objectivity and Psychiatric Nosology

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Abstract

This paper challenges the traditional conception of objectivity in science by arguing that its singular focus on evidential relations and search for aperspectivalism renders it inadequate. Through an examination of psychiatric nosology, I argue that interesting and unique problems arise that challenge this conception of objectivity and that these challenges cannot be met by this account. However, a social practice account of objectivity provides a much more successful way of thinking about values and objectivity in psychiatric nosology. Moreover, it provides us with a far more successful account in general.

1. Introduction

Although the focus of my discussion today is psychiatric nosology and, in particular, the question of whether psychiatric nosology can really ever be value-free, there is a more general philosophical concern that underlies this discussion. This is the concern with the notion of objectivity in science. I think the case of taxonomy raises interesting and unique problems for the idea of objectivity and that our traditional conception of objectivity cannot help us to address our concern with values in psychiatric nosology. I will argue that a social practice account of objectivity such as that given by Helen Longino in Science as Social Knowledge (Longino 1990) provides a much more successful way of thinking about values in this case. Because of this, I argue that hers is a more successful account of objectivity in general. Nosology, nevertheless, raises some important questions concerning the adequacy of this account as well.

2. The DSM and Psychiatric Taxonomy

What I'm concerned with is the diagnostic nomenclature of mental disorders as they are represented by the DSM's (Diagnostic and Statistical Manual of Mental Disorders), although the one I'm working with is the DSM-IV (Fourth Edition) (APA

1994). I'm not sure how familiar most of you are with the DSM, so I though I'd start with a very brief introduction to this manual that I believe will be helpful for purposes of our discussion. The DSM is widely viewed as the official taxonomy of mental disorders. It's a product of the American Psychiatric Association and it's basic purpose is to provide a guide to clinical practice by developing a set of classifications that will eliminate inconsistency, improve diagnostic reliability and increase the overall systematic unity of psychiatric disorders.

The DSM is constructed on the basis of what is called a multiaxial system of patient assessment. Each axis of the system represents a different domain of information. These domains include clinical disorders, personality disorders, mental retardation, general medical conditions, psychosocial problems, environmental problems and general functioning. This information is divided among five axes. The stated purpose of approaching the classification project in this way is to promote a biopsychosocial model of mental disorders – a model that favors no one theoretical level but rather cuts across all three.

At the same time, in constructing the DSM, there is an explicit attempt on the part of those involved to represent no one theoretical viewpoint. The categories are intended to be entirely descriptive of the disorders in questions and neutral with respect to their etiology.

One of the reasons, if not the main reason, for these features is the recognized audience of the manual -- who and what it is intended for. The DSM is used by many different types of individuals -- from psychiatrists and other physicians to social workers and marriage counselors -- in many different settings -- from involuntary inpatient

settings to consultation work. Further, it is not just used for diagnostic work. The DSM also plays a role in the collection of clinical information, as an educational tool for teaching psychopathology, as a basis for directing future research, and as a tool for collecting and communicating public health statistics.

3. What are the Concerns about Values in Psychiatric Nosology?

As such, I think it is fairly safe to say that the information contained in the DSM touches many people's lives and often in very personal and private ways. It's no wonder then that there is much concern over the objectivity of the diagnostic categories described therein and a lot of discussion concerning the idea of values in this context. Since I have found that there are a number of different ways that the concern over values gets expressed in this context, I want briefly to describe these different concerns.

> The first type of concern that we see is a concern with value terms.
>
> > Given [the] scientific momentum [of the DSM], it is surely the more remarkable that we should find value terms, terms expressing judgements of good and bad… liberally distributed throughout both ICD and DSM…. For example, in the DSM-III-R section on Developmental Disorders (APA, 1987, pp. 28-32), there are no less than seven value terms (disorders used three times; disturbance, twice; and failure and distortions) in the first six lines describing the disorder, and even in the statement of specific diagnostic criteria there are three (subaverage, deficit, and impairments). (Fulford, in Sadler 1994, p. 213)

Such terms are undesirable and seen as running counter to an objective, scientific taxonomy.

The second sort of worry we find is with the theories that are informing the categories. Although the DSM claims to be atheoretical, some critics deny this.

> To be sure, psychiatric diagnostic categories are not only evaluative but also usually theory laden… Since theories are not constructed by some transhuman reason, they inevitably involve and reflect cultural, historical, and social

> preferences and values outside those that are defined or expressed within specific theories of disease. Psychiatric disease categories are thus inevitably bound up with evaluative judgement. (Agich, in Sadler 1994, p. 235)

One final type of concern that we see in this context is expressed by the following:

> [The DSM] describes or gives structure to the diagnostic reality so that some etiological theories are more applicable or relevant than others (Faust & Miner, 1986). DSM-III-R declares, as any nosology must, some clinical data relevant to diagnosis and other data not relevant… DSM-III-R may not state a theory, but the metaphysical structure of its classification prefers the theoretical bases of descriptive/biological psychiatry. (Agich, in Sadler 1994, p. 235)

Here, the concern is with the method employed in constructing the manual itself. The question is not about the actual content of the manual but rather how decisions are made to include in or exclude from the manual particular categories.

My focus for today is on the last concern – the concern with values that are introduced via the taxonomic process and I want to argue that this concern is independent of the other two. That's to say, the first two concerns would exist even if there was no taxonomic project, and values introduced by taxonomy would be a problem even if the theories being employed were thought to be objective and value-free. Let me explain a bit more. If there was no need for a taxonomy, and so theories of psychiatric diseases were never assembled for this purpose, these theories would still have to address concerns, like all scientific theories do, that they are constructed by individuals with certain histories in certain social contexts, with their own peculiar background assumptions and, thus, reflect the values of those individuals. Moreover, since they are theories about disease, they invariably contain evaluative concepts of some sort. Such theories, like their medical counterparts, address the malfunctions of the human body. These two concerns are, thus, not specific to psychiatric nosology.

Further, if these two problems were to be eliminated and the theories that are informing the taxonomic project were objective and contained no value terms, there would still need to be decisions made about what to include in a taxonomy and how to organize the information. And, I maintain, the mere act of picking and choosing which parts of the theories will be represented in the taxonomy and how the information will be structured is a potential point of entry for values. The classificatory work being done by the DSM task force -- the decisions made by those in charge of creating this manual -- is an independent source of values.

I don't think this is anything new, but I'm not sure that people generally see that these are three distinct problems and that resolving one problem won't guarantee the resolution of the others. My hope is that if we can address the concern with values in taxonomy that are due to the taxonomic process then our problems will reduce to the more familiar and widely addressed concerns of value-laden theories and evaluative terms in theories of disease, both of which are the subject of a large amount of literature. Then all we'll need to do is solve those problems.

4. Focus on Values Introduces via the DSM Taxonomic Process

How does the taxonomic process proceed? It is interesting to begin by looking at what the DSM claims is the method that is used in developing its taxonomy. The individuals that are involved in this process are organized into a main Task Force that is in charge of overseeing activity and producing the final manual, and 13 Work Groups, each of which had a primary responsibility for a section of the manual. Those chosen for these work groups were informed that they were to participate as consensus scholars and

were not there to represent any previously held views. They attended a methods conference aimed at articulating the procedure to be followed in "finding, extracting, aggregating, and interpreting data in a comprehensive and objective fashion." (APA 1994, p. xviii) Each Work Group is given the task of performing literature reviews to identify the most pertinent issues regarding various diagnoses. "The goal of [these] literature reviews was to provide comprehensive and unbiased information and to ensure that DSM-IV reflects the best available clinical and research literature." (APA 1994, p. xviii) Those involved in producing the DSM take seriously the proposition that they are proceeding in an objective and unbiased manner. They believe themselves to be providing purely descriptive accounts of the information currently available. Decisions about the final product of each work group, as well as the overall product delivered by the task forces are arrived at through "open and extensive lines of communication" (APA 1994, p. xvi) and based upon extensive empirical evidence and correspondence that had been gathered.

Others, however, have painted a different picture of the decision making process that occurs in compiling the DSM. Karen Ritchie, in an article entitled "The Little Woman Meets Son of DSM-III" (Ritchie 1989), gives an account of a debate that took place over the inclusion of several disorders in the DSM-III. The American Psychiatric Association invited seven psychologists and psychiatrists to meet with the DSM task force prior to the revision of the DSM-III. The purpose was to discuss several disputed diagnostic categories - categories that some mental health professionals were finding objectionable. Among these categories was paraphilic rapism which "would have designated a group of compulsive rapists as having a mental disorder." (Ritchie 1989, p.

698) The group was there to voice the concern that this would allow a group of rapists to plead insanity, thereby avoiding a prison term. The group, upon presenting this argument to the task force, was surprised to find that the task force found this consideration persuasive enough to simply drop the diagnostic category entirely from the manual.

This group also expressed their concern with the category masochistic personality disorder (symptoms: remaining in exploitative relationships, sacrificing one's own interests for others, rejecting help so as not to be a burden) claiming that, given the way the disorder was defined, a behavior was being labeled `abnormal' that is historically, culturally and often religiously an acceptable and desirable behavior for women. Women are often socialized to act in the self-effacing ways described by the category. At this point the APA committee began its deliberation, reportedly creating and dispensing with revisions by having individuals shout out criteria that would make the category appear less `normal'. One such revision was dropped because a committee member claimed "I do that sometimes." (Ritchie 1989, p. 698) "The [group] asked whether jogging, playing football, or wearing high heels and girdles constituted masochism. The answer they received was that sports activities are not masochistic. Nor is wearing high heels, but wearing a girdle is, unless a woman is over 70." (Ritchie 1989, p. 698)

Keep in mind that it is not the content of the disorder that we want to focus on, but rather the method that is being used to decide what counts and what doesn't. Obvious, there is a large gap between how the DSM describes its purely innocuous fact-finding, consensus building mission and accounts such as Ritchie's.

5. Can we Say anything about Obtaining a More Objective Taxonomy?

How can we begin to think about this type of activity and the concern with values that arises here? A reasonable move, at this point, would be to turn to the notion of objectivity for help. Traditionally, we have held scientific inquiry to be objective because of its nature. That's to say, science is a way of understanding the world that, because of its method – the scientific method – produces an objective understanding of the world. By following the scientific method we can describe the world from no particular perspective. This aperspectival account of the world doesn't reflect any particular set of values and, thus, science, in being objective is seen as value-free.

If we could just proceed with the appropriate method in the case of psychiatric taxonomy, then, we could produce a value-free, objective nosology. What is this method we should use? Traditionally, method confers objectivity on science through the relation between theory and evidence. The most important models are the inductive model and the hypothetico-deductive model. According to both models the evidence, or data, is itself objective. This objectivity of the data is guaranteed in a variety of ways, most commonly because of direct perception or inter-subjective agreement. On the inductive model, scientific theories are built up out of the objective data using accepted inductive rules. On the hypothetico-deductive model, the data is deduced from the theory. In both cases, it is the relation between theory and evidence that characterizes the scientific method, and it is the method that makes science objective.

How does this help us with our taxonomy problems? It would seem that it doesn't. In particular, taxonomy appears to fall outside of this discussion altogether. Taxonomy isn't about evaluating evidential relations. The DSM's taxonomic project

isn't about evaluating evidential relations. The task force takes the information that is available to them and structures it. Thus, the question of evidential relations does not arise. There is no theory being produced that is being evaluated on the basis of this data.

Let me explain just a bit more. The building blocks that are being used in this process to create a taxonomy are data taken from assorted theoretical frameworks. Presumably we can even think of this data as objective. The task force takes these building blocks and organizes them – adds structure to the information.

Now you may be thinking that the situation is different in this case. It may seem as though the data is being re-used – it has left the safe haven of its theoretical framework and is gathered with other data from other places and a new theory is being created, which will need to be evaluated, itself, against this new evidence. But what is the theory here? The theory concerns the overall structure of mental disorders – how they are related to one another, what general categories exist, what constitutes descriptions on various axes. And what's the data? Well they are descriptions of disorders and the kinds of behaviors associated with the disorder. This isn't data that can be marshaled to support a theory concerning the general structure of mental disorders. So we won't be able to use our scientific method to evaluate the objectivity of this theory. Our traditional understanding of objectivity cannot help us to address our concern with values here because its focus is on evidential relations and psychiatric nosology isn't a case of that.

In fact the point what seems to be the likeliest place for values to enter into this process is in the decisions that are being made with respect to what to include and what not to include in the nosology. Decisions at the organizational level are introducing values by introducing structure, but this process seems to have no place in the traditional

picture of objectivity. This suggests that we need an account of objectivity, a way of addressing values, that is not restricted to evidential relations.

6. Why should we think that Taxonomy is providing us with scientific knowledge?

You may be wondering whether the traditional account of objectivity does not capture taxonomy because taxonomy is not a part of science in the sense that it is not producing any new scientific knowledge. It may be that the traditional account is fine for scientific inquiry but activities such as taxonomy need to find their own way of ridding themselves of unwanted values. Taxonomy should not look to the notion of objectivity for help.

I find it hard to see how this position can fly. Why should it be the case that taxonomy not be labeled as science? Why should the information gained here not be considered scientific knowledge? Certainly it is providing new information that, while its not clear that we should classify it as either theory or evidence, is nevertheless scientific information. Taxonomy is providing us with structural information that is used for predicting, explaining and guiding future research.

I want to push the stronger claim that science is composed of many kinds of activities that produce knowledge (not just theory formation on the basis of evidence) and that all of these activities require a way of evaluating the objectivity of the information being produced. Now you may argue that there may be different methods for each and every different type of activity and we can hang on to the traditional account and look for a new method for taxonomy. However, this is not a profitable way to proceed.

7. Social Practice Account of Objectivity Can Help

It is not a profitable way to proceed largely because, as it happens, the traditional account of objectivity isn't working for evidential relations either. Besides the fact that there doesn't seem to be a whole lot of science that measures up to either the strict standards of deducibility or inductive rules that are required to insure objectivity, other problems arise. There is, of course, the problem of evidence being theory-laden. What should count as a value-free observation or datum? Another familiar problem is the underdetermination of theories by evidence. Given any pile of evidence and a theory that is supported by this evidence, we can construct another theory that is equally well supported by the evidence.

In both of these cases we see that values necessarily get introduced because of choices that have to be made. In the first case a choice of what is the basic agreed upon foundation for constructing theories. In the second, choices need to be made concerning which theory to chose and why. In both cases the discussion of objectivity requires some sort of agreement, some sort of activity beyond the application of abstract method.

I don't know if these shortcomings of the traditional method for obtaining objectivity are the types of concerns that led Helen Longino to her account of objectivity or not. It is certainly the individualistic nature of the traditional method that she objects to. Traditionally, objectivity is taken to be an attribute of science because of the particular method that it employs. "Scientific method, on this view, is something that can be practiced by a single individual: sense organs and the capacity to reason are all that are required for conducting controlled experiments or practicing rigorous deduction."(Longino 1990, 66)

The problem with this traditional account, as she sees it, lies in just this promotion of objectivity as achievable by an individual. She maintains that science is essentially a social practice, thus requiring the participation of two or more individuals, and that objectivity is a product of particular aspects of this practice. It should be noted that objectivity on this account is still understood as the product of following a particular method, but now instead of being abstract and universal, it is supplied by the particular practices that the scientific community engages in.

What is it about the social nature of inquiry that gives us objective knowledge? Longino argues that it is the constant critical scrutiny and modification of each individual's work by other members of the community that leads to objectivity. Experiments must be repeatable, and repeatable by others. Procedures such as peer review are necessary. Here, other points of view are brought to bear on an individual's work and revisions are suggested (and expected to be made) in light of these reviews. This social give and take – interacting with others in a critical way -- is what produces objective knowledge, and not the demonstration of some abstract relationship between theory and evidence.

A number of questions may arise concerning this proposal, not least of which is the question of why it is not the case that such a process merely reinforces a particular group's background beliefs and assumptions. The community may function such that values are never questioned and, thus, flourish within a community's collective work. Likewise, we might think that alternative points of view may be suppressed by this critical scrutiny.

It is important to note that this account treats objectivity not as an absence of values but as an exposure and questioning of these values. Although what results may not be entirely free from values, the existence of channels for addressing these values is what is essential to objectivity. Something needn't be aperspectival to be objective. Poly-perspectival will do the job.

Moreover, it is the requirement of multiple perspectives that allows us to avoid problems of group tyranny and suppression. There are, however, several criteria that a community must meet in order that inter-subjective criticisms promote objectivity, criteria that help to insure that these multiple perspectives are considered and that objectivity can be obtained. First, there need to be recognized avenues for criticism. Second, there must be shared standards that critics can invoke. Third, the community must be responsive to this criticism. Finally, intellectual authority must be shared equally among participants in the process. A community will be objective to the degree that it satisfies these criteria.

8. Applied to DSM and Taxonomy

The virtues of this approach to understanding objectivity are numerous. In the case of the DSM and the concerns we have been dealing with in this context, we not only find a way of addressing the question of values and prescribing help, but also a way of understanding the role of taxonomy in producing scientific knowledge.

The DSM is produced through a series of the compromises and agreements that are made by the task force and work groups as they consider the literature they have compiled, and determine what should and should not be represented in the final product.

Given the social practice account of objectivity, we can begin to see how trouble in the form of unwarranted and unwanted values begins to brew. The kinds of interactions that are taking place, and the individuals that are so interacting, are not sufficient to expose background assumptions and values. Compromise and consensus seem to be the modus operandi used in designing categories. The goal is to find concepts that are "workable, generally agreed to, or the best we can do all things considered." (Agich 1994, p. 237) But compromise and consensus run counter to critical scrutiny in that they are a backing away from critical scrutiny. When the group of psychologists and psychiatrists criticized certain categories, the categories were simply changed. This doesn't constitute critical interaction, regardless of what is being talked about.

I propose that we look, in a more detailed way, at the nosological process in terms of Longino's account of objectivity. This account can address the decision making processes that are the candidates for value introduction, and, thus, can help us to understand how to go about eliminating values that arise in this context. It is easy enough to extend her account to nosology, for certainly, if it is anything, coming up with something like a psychiatric nosology is a highly social enterprise that involves the participation of many individuals in the scientific community, and perhaps beyond. But what needs to be done is to evaluate the particular kinds of interaction that occur in developing classifications of psychopathology. In particular, we need to see if the kinds of interactions that give rise to something like the DSM are the sort that Longino characterizes as necessary for objectivity.

Are there recognized avenues for criticism of the DSM? One worry might be that, due to its theoretically pluralistic nature, there are, as yet, no recognized avenues of

criticism. For example, criticism may appear in journals or other places that represent only one particular theoretical viewpoint. Thus, such criticism is read primarily by individuals already in agreement with that viewpoint. As a result, it is never scrutinized in the context that is relevant to producing objectivity in nosology.

The second of Longino's criteria is that there must be shared standards that critics can evoke. Once again, a theoretically pluralistic context poses a problem. If there were any existing standards to appeal to they would most likely be a part of a particular theoretical framework. Critical standards appropriate within one particular framework are not necessarily acceptable. Thus, it would seem that other, independent critical standards need to be established for this particular task.

Longino's third criterion is that the community must be responsive to criticisms that arise through these channels. I am not sure that responsiveness has been a problem. It is more likely that it is the kind of responses that are the biggest source of trouble and knowing how to deal with these responses. These issues would presumably be dealt with by setting critical standards and establishing recognized avenues of criticism.

The final criterion is that intellectual authority must be shared. Criticisms such as the one given above, arguing that the DSM is biased in favor of one particular theory because of the hierarchical classification scheme that it employs suggests that authority is not shared. This, itself, might be a result of the personal biases of those involved in the project and reflect a biased distribution of authority. Recall the intended audience of this manual. There are psychiatrists as well as social workers, counselors and clinical psychologists who are being informed by this work. Moreover, the DSM itself claims that it represents a bio-psycho-social approach to classification. Basically, this means

that there is not an explicit commitment to any one approach to understanding mental disease. However, when one examines the types of individuals involved in creating the DSM – the names of those people on the task force and in the work groups, one finds that in most cases MD's represented 100% of the work group with their membership never falling below 55%, giving an overall average of over 80% per work group. Perhaps they represent all the different perspectives, but that is hard to imagine, not to mention defend.

9. Some Concerns with the Social Practice Account of Objectivity

These are just a few suggestions meant more to provide example of the ways in which the criteria for obtaining objectivity might help to identify current problems. I think it is clear that the social practice account of objectivity points to problems with the DSM taxonomic process and makes positive suggestions for how to alleviate these problems. Moreover, within this framework, taxonomy can be recognized as a part of science and as producing scientific knowledge.

There are, however, a couple of problems that such an approach may encounter. One such problem is the claim that psychiatric nosology functions with a pragmatic goal. Its purpose is to provide workable, useful and generally agreed upon categories for successful diagnosis. It's supposed to guide clinical practice, eliminate inconsistencies, improve diagnostic reliability and increase the overall systematic unity of psychiatric disorders. It might be that case that having such a goal conflicts with the goal of obtaining objective knowledge. That's to say, it might be the case that objectivity is the product of certain kinds of social interactions only if the people involved in the interaction all share the goal of coming up with objective knowledge. The critical give

and take that occurs is premised upon having such a goal. On the other hand, when you have a different goal – say a pragmatic one of coming up with something useful – then objectivity does not necessarily obtain no matter how much critical scrutiny we have. For this to occur it would have to be the case that what is useful may not be what is true – a situation that we can, perhaps, imagine.

Presumably, however, psychiatric nosology has closer ties to the search for the truth and objective knowledge than this concern with pragmatic ends lets on. The categories being proposed depend upon the kinds of empirical data available to support the category and its defining criteria. This links the taxonomic process to the empirical work that has been done where, presumably, objective knowledge was the driving force. This may not be enough to believe that the taxonomic process itself is producing objective knowledge. However, the overarching goal is more than just pragmatic, it is to describe the world of mental disorders. There are good reasons for believing that the pragmatic goal is not necessarily at odds with the goal of knowledge.

One final concern that might be expressed is that the social practice account of objectivity is casting too wide a net and is capturing a notion of objectivity that is not scientific. Scientific objectivity is perhaps something more, or something different. This is why the social practice account can be applied to the taxonomic case without incident. I think the burden of proof in this case is on the critic. Why is it the case that the social practice account is not addressing what's special about scientific knowledge? It seems to do exactly the opposite and capture what <u>is</u> special about science – the critical give and take that occurs. Moreover, the fact that it does capture activities other than evidential

relations is a positive feature. For there are surely other scientific activities that produce knowledge, and the taxonomy of the DSM is one such activity.

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