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Philosophy, Psychiatry, & Psychology, Online Advanced Publication,  
(Article)

Published by Johns Hopkins University Press

DOI: <https://doi.org/10.1353/ppp.0.a981401>



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# HiTOP, OBJECTIVITY, AND LOGICAL POSITIVISM

Commentary submitted on December 4, 2025  
Accepted on December 8, 2025

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AFTAB ET AL. (2026) aim to outline the assumptions held by the Hierarchical Taxonomy of Psychopathology (HiTOP) project. It is highly commendable that a scientific project outlines the assumptions it holds, because this helps to generate awareness of its strengths and weaknesses. They also helpfully outline their stance toward their assumptions at a more philosophical level. We can ask not only what assumptions are held, but whether those assumptions are understood as superior to other assumptions or understood as just simply an alternative set of assumptions. Additionally, if they are taken as superior, then we can ask upon what grounds HiTOP holds this stance, such as better reflecting reality or being practically beneficial. Aftab et al. seem to take an unclear stance here and I will outline one possible solution by drawing upon an approach they discuss but dismiss, namely logical positivism.

On multiple occasions, Aftab et al. mention that the HiTOP project assumes the domain of psychopathology takes a dimensional form, and they contrast this with the categorical approach of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM). This assumption of dimensionality is what I will focus on. Does HiTOP adopt a dimensional approach because it considers di-

mensionality superior to categorical approaches or because the aim is simply to diversify the number of approaches taken to forming groups in psychiatry? Multiple passages suggest the former interpretation. For example, Aftab et al. mention “critical limitations of traditional diagnostic systems” (2026, p. XX) which include the categorical approach of the DSM. They also mention that modern evidence “provides substantial—although not conclusive—support for HiTOP’s assumption [of dimensionality]” (2026, p. XX). This suggests that HiTOP sees the evidence as supporting dimensional over categorical assumptions. However, in one passage they write that “[s]cientific objectivity is an aspiration to produce knowledge that would be agreed upon by any potential researcher who shared a sufficiently commensurate set of measurement tools and foundational assumptions” (2026, p. XX). This quote suggests that objectivity follows from assumptions, such as an assumption of dimensionality. This position would mean we could not appeal to objective evidence to support one foundational assumption over another since objectivity only follows given assumptions. The stance might mean a categorical foundational assumption could also produce objective results. There thus appears to be two different stances be-

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The author reports no conflict of interests.

ing taken toward the status of the dimensionality assumption.

I suggest that Carnap's approach to logical positivism could provide a potential solution to this issue. Aftab et al. do mention logical positivism, associating it with a purely empirical and a-theoretical approach to science, but this is not an accurate account of Carnap, arguably the leading logical positivist. Carnap (1950) argues that questions of existence only arise given a framework. A framework is a set of assumptions that frames our investigation of the external world. Given that there are so many different ways of constructing an image of the world, we first need put some parameters in place before we can start to ask if a particular view of the world is correct. In this sense, questions of reality and objectivity are relative to a framework. This means that we cannot appeal to reality and objectivity to decide upon the correct framework because these only arise once a framework is in place.

Many issues discussed by Aftab et al. function well to highlight what a framework is and how it works. Categorical and dimensional could be understood as two different frameworks. On a categorical system, we see the world as being made up of objects that either do or do not fall into a particular class. On a dimensional system, we see the world as being made up of objects that fall into particular classes to particular degrees. On this framework approach, questions of whether the domain of psychiatry really is categorical or dimensional only make sense by first adopting a categorical or dimensional framework. This is remarkably similar to Carnap's example of a framework whereby he writes that "[t]he physical state of a spatio-temporal point or region is described either with the help of qualitative predicates (e.g., "hot") [categorical] or by ascribing numbers as values of a physical magnitude (e.g., mass, temperature, and the like) [dimensional]" (Carnap, 1950, p. 29). He then asks whether it makes sense even to posit space-time points. He thinks this question can only be correctly understood as asking "Shall we introduce such and such forms into our language?"; in this case it is not a theoretical but a practical question, a matter of decision rather than assertion" (Carnap, 1950,

p. 29). In this sense, whether we want to posit the existence of space-time points and understand them as categorical or dimensional depends upon practical questions rather than questions of reality or objectivity.

Rather than just employing a categorical or a dimensional framework, we could choose a framework which posits both categorical and dimensional entities and then try to establish which best fits the domain of psychiatry. This might look like evidence determines which one is correct independently of our framework. However, Carnap also posits that we need correspondence rules to connect frameworks with evidence. These are the rules that tell us how to apply the framework. Carnap sees the concept of statistical probability as a correspondence rule (1956, p. 49). As such, mathematical and statistical techniques which we employ when deciding whether categorical or dimensional has a best fit are examples of correspondence rules. In this sense, categorical or dimensional only perform better statistically than the other given further choices about what correspondence rules to employ. This again means that whether the domain of psychiatry is categorical or dimensional depends upon choices we make.

Carnap argues that we can only choose between frameworks and correspondence rules based upon practical considerations, such as convenience, efficiency, fruitfulness, and simplicity (1950, p. 23). On this basis, there might indeed be strong ground to favor dimensional over categorical approaches. The arguments for and against both approaches have been debated at length and Aftab et al. do certainly mention credible reasons to favor dimensionality. My point simply is that choosing between categorical and dimensional is a matter of practicality rather than factuality on Carnap's approach. Additionally, there is the possibility of using multiple frameworks simultaneously whereby one framework seeks to classify phenomena categorically, one framework seeks to classify phenomena dimensionally, and a third framework classifies particular phenomena either categorically or dimensionally depending on various statistical principles. I have recently defended both the DSM and HiTOP through a neo-Kantian position which shares much in common with

logical positivism, because both see higher order principles as setting the possibility of scientific knowledge. I see categorical and dimensional as separate frameworks and I think there is good reason to use both (Fellowes, 2025).

I have highlighted a potential tension in Aftab et al.'s philosophical exploration of HiTOP. They suggest that objectivity follows from assumptions but they also suggest that the evidence favors their assumptions. There are complicated philosophical questions about how we can appeal to evidence to determine which assumptions are correct if objectivity only follows from a set of assumptions. I have outlined Carnap's logical positivist approach whereby only practical considerations can be used to decide between frameworks and correspondence rules whilst questions of objectivity and reality only follow from particular frameworks and correspondence rules. There are, however, many scientific realist and empiricist approaches which would claim that evidence can be used to

determine which assumptions are correct. HiTOP has many philosophical positions to choose from when thinking about how evidence relates to assumptions.

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