

Metaphysics from a Human Point of View

Helen Beebe

Knowledge and Understanding in Metaphysics

There has been a good deal of debate recently about two related issues: whether metaphysics (or philosophy in general) is making any progress, and whether persistent peer disagreement undermines knowledge claims. My answer to both questions is 'yes'. That's a problematic pair of claims to endorse, however, if you think the aim of metaphysics is substantive knowledge of the nature of reality, because persistent peer disagreement is completely endemic in metaphysics — and we have (I claim) no reason to think it's ever going to go away. In this talk, I'll try to defend the view that metaphysics progresses by way of enhancing our understanding of the world, but that such understanding requires neither knowledge nor truth.

Mieke Boon

How do scientific models represent? The role of disciplinary perspectives

Philosophical accounts of how scientific models represent a real-world target phenomenon often depend on a picture-metaphor of the semantic and epistemic relationships, expressed in notions such as similarity and resemblance. This metaphor is problematic if we try to understand how scientific models represent unobservable phenomena. It is proposed to approach this issue from the question how researchers construct and use scientific models in scientific practice. This leads to the idea that models, rather than being viewed as pictures, must be understood as hubs where researchers bring together heterogeneous aspects, which they need to integrate into a coherent whole. Models as representations of unobservable phenomena, therefore, must be understood as conceptions created by researchers, which eventually become established in terms of a constellation of aspects typical of a scientific practice, such as instruments, measurement procedures, phenomenological analogies, mathematical and conceptual frameworks, and fundamental (ontological) beliefs. This epistemic, creative and constructive contribution by scientists operating in a specific scientific context is usually referred to as the role of the disciplinary perspective. Although this constructivist account of representations such as models leads to a Van Fraassen (epistemological) anti-realism, unhealthy relativism is avoided in three ways, namely: the construction process and the resulting representations must adhere to pragmatic and epistemic criteria that apply within the discipline; these epistemic criteria usually transcend the specific disciplinary perspective; their epistemic and pragmatic roles can be articulated, explained or justified; and, the disciplinary perspective can and should be articulated, analyzed and critically examined, for which a preliminary Kuhnian framework is proposed.

Catherine Z. Elgin*Models in Understanding*

Many scientific realists hold that the epistemic acceptability of scientific representations depends on their accuracy. Science aspires to truth and when it is successful it delivers truth. I argue that such a conception is at odds with science's practice of developing and deploying models. Models are epistemically efficacious precisely because they selectively and judiciously depart from truth. By exemplifying features they share with their targets and diverging from their targets elsewhere, they provide epistemic access to the exemplified features and make their roles manifest. Their inaccuracy thus enhances understanding.

Steven French*Phenomenology, Perspectivalism and (Quantum) Physics*

In 1939 London and Bauer published a short pamphlet on the measurement problem in quantum mechanics. Widely misunderstood as merely a restatement of von Neumann's 'consciousness causes collapse' solution, the pamphlet is in fact infused with a phenomenological sensibility deriving from London's own philosophical studies. Building on previous work I shall indicate how this approach can be interpreted as 'perspectival' in multiple senses: first, by relating it to perspectival elements in Husserlian phenomenology and the establishment of inter-subjective agreement; and secondly, by exploring possible connections certain more recent perspectival interpretations of quantum mechanics, such as that of Dieks. In doing so I hope to restore the fortunes of the London and Bauer approach and help establish it as the basis for a viable interpretation in the current context.

Sören Häggqvist & Åsa Wikforss*Natural Kind Terms: How Does the Millian Theory Fare?*

In the talk we examine the Millian theory of natural kind terms. The grounds for assessment are straightforward. Semantic theories are empirical theories: they have to mesh with evidence about how terms are (and have been) used; be capable of explaining various phenomena; and cohere with findings in areas like psychology and cognitive science. Moreover, a semantic theory has to cohere with what is true, as far as the relevant sciences inform us, about the worldly relata or referents. In the case of natural kind terms, these are the categories identified by various scientific disciplines. Drawing on some recent experimental data on speaker use of natural kind terms, and on recent work in the philosophy of science, we argue that the prospects for a thoroughgoing Millian account of natural kind terms are bleak.

Carl Hoefer & Genoveva Marti*Realism, Reference & Perspective*

In our talk we will present and defend a version of scientific realism, Tautological Scientific Realism (TSR), that rests on the claim that, excluding some areas of fundamental physics about which doubts are entirely justified, many areas of contemporary science cannot be coherently imagined to be false other than via postulation of radically sceptical scenarios, which are not relevant to the realism debate in philosophy of science. We will discuss the threats of meaning change and reference failure associated with the Kuhnian tradition, which depend on a descriptivist approach to meaning, and will argue that descriptivism is not the right account of the meaning and reference of theoretical terms. We will conclude with a reflection on the relation between TSR and some variants of perspectivism.

Paul Hoyningen-Huene*The genealogy of Kuhn-type antirealism*

Many philosophers find a Kuhn-type antirealism claiming world change that is induced by revolutions indigestible. If “world” means objective reality, such world change talk is incoherent. It can at best be understood as psychological or metaphorical, to which Kuhn vigorously objected. In this talk, I shall trace the genealogy of this kind of antirealism.

This path begins seriously with Copernicus. Whereas the motions of the Sun and the planets were previously seen as purely object-sided, they are now seen as containing genetically subject-sided contributions. A very similar process, also at center stage of the constitution of modern science, was the introduction of secondary qualities in the 17th century by Descartes, Galilei, Boyle, Locke, and others. In both processes, the reality status of something changed from being purely object-sided to also containing genetically subject-sided elements. The reflection of such processes in philosophy culminates in Kant’s critical philosophy. Ever since, this kind of thinking has been an indispensable part of Western scientific and philosophical culture. It especially surfaced in the development of special relativity and quantum mechanics and is present in many currents of contemporary thought.

Helen Longino*Objects and Interactions: A Plea for a Pluralist Ontology*

Too often, interactions are analyzed and explained in terms of the properties and behaviors of the entities interacting. I will argue that, in at least some cases, interactions cannot be reduced away and ought, therefore, to be admitted as full-fledged members of a scientific ontology.

Sandra D. Mitchell

Experimental evidence for the reality of emergent entities

Many defend a view that causation is the foundation of positing what is real. That is, we infer what entities exist from our experience and experiments (rather than literally reading what is real from our theories). Stability of the causal behavior of entities permits replicability of results from repeated experiments and convergence of results from different types of experiments. If replication fails or experimental results diverge then the reality of the entity is doubted. These arguments depend on assumptions about the reliability of detection procedures as well as the kind of stability of real entities. I will argue that dynamical emergent systems, by which I mean entities whose properties and structures arise from and are maintained by interactions both among components of the system and with environmental features, challenge the standard inference from replication and convergence to realism and expose the role theoretical assumptions play in causally detecting what is real.

Stathis Psillos

The Law Wars: the Relations Between Science and Metaphysics

The 17th century saw, among other things, the emergence of the law-governed conception of nature. That the motion of inanimate objects—qua natural bodies—is governed by a small number of universal laws is a view without precedent before Descartes, who first presented it in *Discourse of Method* (with some references to his unpublished *Le Monde*) and elaborated it in his *Principia Philosophia* in 1644. It emerged in sharp contrast with the view that natural substances have sui generis powers which necessitate their behaviour. This novel view spread rather quickly mostly due to the writings of the Cartesian occasionalists in both sides of the Channel. It was adopted by Leibniz and Newton, who in the drafts of *De Motu* changed the label 'hypotheses' to 'laws' for the basic principles of his theory. But both philosophers put forward anti-Cartesian accounts of laws.

Three are the main philosophical issues concerning laws in this period. *First*, the epistemic status of laws of nature: are they known independently of experience or by reference to experience? And, qua universal principles, how do they acquire their legitimacy? *Second* the modal strength of laws: are they metaphysically necessary? And if not, is there a sense of necessity with which they hold (*aka* natural necessity) or the purely contingent? *Third*, what's the connection between laws and the (causal) powers of bodies? In particular, do objects have powers and if yes, how are they identified? Prior to laws or because of them? All three issues were tied up with two broader philosophical themes: the grounding of laws in God and the relation between science (and scientific knowledge) and metaphysics. The three thinkers I will focus on (Descartes, Leibniz and Newton) had radically different views on all of the above.

The present paper aims to put some order in this very complex conceptual terrain, by doing two things. First, it will identify and discuss a key common assumption of the three thinkers,

viz. that laws are in some sense necessary. Though the provenance of this necessity is in God, the different ways in which it is grounded in God mark substantial disagreement about the relation between science and metaphysics. Second, it will present and discuss three distinct models of the relation between science and metaphysics: the top-down (Descartes); the bottom-up (Newton); and the mutual influence one (Leibniz).

Both of these topics (status of necessity; models of the relation between science and metaphysics) have current relevance. Hence, the paper will finish with some general remarks about possible conclusions that can be drawn from the 17th century debates about laws that are relevant to current debates.

Jan-Willem Romeijn in collaboration with Hanna van Loo

Perspectival realism about mental disorders

This paper is concerned with classification schemes for mental disorders, like DSM-V, ICD-10, and RDoC. Should we adopt a realist attitude towards such classification schemes? We argue that realism about mental disorders holds pragmatic value but that the goal-relativity of classifications invalidates a realist interpretation of the classifications themselves. We then propose that realism about disorders is best seen as perspectival: the empirical patterns are real but any description of them involves a subjective framing.

Orly Shenker

The human vantage point in physics and in the special sciences

The “human” vantage point can be understood as the vantage point that “a human being” has, or can have, in different circumstances. On this understanding, while each person is different (a point to be taken into consideration!) there is (arguably) something that is shared by all (typical) people, and for which an account of the human vantage point is called for. I will describe (in outline) three contexts within physics in which this vantage point forms an essential part of physical theories, a part that calls for explanation: (1) (classical) statistical mechanics, (2) (the many worlds interpretation of) quantum mechanics, (3) the special theory of relativity. Additionally, I will point out how these bring about the special sciences, in which – consequently – the human vantage point is of special importance.

Miriam Solomon

On Pluralism in Psychiatry

I have argued that pluralism about methods and/or theories is good for science, because it can increase empirical success, but bad for scientific authority, because it hinders consensus. Psychiatry has been dominated by a single conceptual framework for the last forty years (the

DSM framework) and enjoyed considerable professional authority. Because of the “crisis of validity,” this dominance has recently given way to a pluralist situation in which several different approaches to disease nosology are being developed. In addition to the DSM framework, there is the RDoC program, the HiTOP framework, the network approach, the mechanistic property cluster approach, and others. My paper will explore the challenges and difficulties of working with pluralism in psychiatry, making constructive suggestions for future research.

Paul Teller

How to Think About the World

In prior work I have argued the failure of referential realism: our referring terms and predicates fail to have referents because, roughly speaking, there are too many candidates for attachment to our terms and the world is too complicated for us to pick out unique referents. Instead we use terms with the form of referential success but that are parts of idealized simplifications of a world too complex for us to get anything exactly right. This conclusion dovetails with the conclusion of Berkeley and Kant that representations (“ideas”, broadly construed to include perception) can only be compared with other representations. The view now appears to be saddled with a kind of latter day, representational idealism: All we can have, perceptually and cognitively, are our representations. I will urge that, though in a sense correct, this conclusion is far less troublesome than it might appear. Much of the literature on color agrees that our perception of colors as objective, intrinsic, monadic qualities of surfaces of objects is a simplification of a much more complex phenomenon of color perception. I will say that intrinsic monadic color properties are not referentially real, still they are phenomenally real in the sense that color perception is of rich and stable worldly phenomena, in something like Bogdan and Woodward’s sense. I will then argue that we should think of physical objects themselves, both of science and perception, in the same way. We do not identify specific objects and properties, but representing the world this way identifies a rich texture of stable phenomena.