

The Epistemology of Metaphysics

Helen Beebe
Manchester

It's a dominant assumption of contemporary metaphysics that it is a truth-seeking enterprise — and it's widely assumed that we are, collectively, rather good at it (even if there are respects in which, as Tim Williamson puts it, we 'must do better'). But is that dominant assumption really true? If metaphysicians are truth-seekers then it rather looks as though we aren't that good at it after all, given how much time and effort we've put in to trying to solve the Big Questions about the nature of reality across centuries — indeed, across millennia — and how little agreement there continues to be amongst rational and well-informed metaphysicians. I consider whether conceiving ourselves as truth-seekers is really a helpful way to proceed, and argue that it isn't; and I consider the prospects for developing an alternative self-conception that steers a course between scepticism and relativism.

Metaphysics of Science: Fact or Framework?

Stathis Psillos
Athens

In this talk I will contrast two approaches to the status of metaphysics: the historically dominant view that metaphysics is a factual enterprise and the view that metaphysics is non-factualist. This latter view has been defended in the twentieth century by Carnap in his famous external-internal distinction and (in different way) by Collingwood. After presenting the case for factualism and the case for non-factualism (focusing on the category of natural necessity), I will draw some conclusions concerning the limits of factualism and show how metaphysics can be usefully thought of as having at least a non-factual aspect.

TWO WAYS OF NATURALISING METAPHYSICS

Dr Yafeng Shan
Department of Philosophy
Durham University

Recently it has been widely debated as to the naturalistic approach to metaphysics. The central issue is whether contemporary science provides a legitimate foundation for metaphysical knowledge. (Chakravartty 2013, Robus 2015) There are two interpretations of this doctrine of naturalistic metaphysics. On the one hand, it can be understood as that scientific knowledge is the foundation of all metaphysical knowledge. (Ladyman and Ross 2007, Morganti and Tahko 2016, Ney 2012) In other word, all metaphysical knowledge supervenes on our best scientific knowledge. On the other hand, it can be read as that contemporary science provides a promising framework for the metaphysical inquiry. In this paper, I aim to argue for a naturalistic approach to metaphysics in the second interpretation. Firstly, I shall argue that the naturalistic approach is motivated by the success of contemporary science. The first interpretation is based on a strong realist account of the success of science. However, given that scientific realism is still a controversial position, I argue that a naturalistic metaphysician does not have to be a scientific realist. Secondly, I shall propose a modest interpretation of the success of science by arguing that contemporary science provides a highly reliable and successful framework to propose and solve the problems about reality. I shall thus argue that metaphysics could be beneficial by adopting the framework. Finally, I shall argue that even if I prefer to the second interpretation, it does not imply that we should not abandon the attempt to pursue a naturalistic approach to metaphysics in the first interpretation. I argue that Chang's scientific pluralism (2012) is also applicable to metaphysics. In metaphysics, different approaches should be encouraged.

ON METAPHYSICAL PSEUDO-QUESTIONS

Katarina Perovic
Assistant Professor
Department of Philosophy
270 English-Philosophy Building
University of Iowa
Iowa City, 52242 IA, USA

It can be argued that metaphysics has been both the most central and the most disputed philosophical discipline. Its centrality comes from the fundamental ontological questions it explores, i.e., questions concerning the nature and the type of ontological categories that underlie all other forms of being. Its controversial status is due to various attacks it has had to endure from different quarters. Some have questioned the very possibility of doing metaphysics (Kant), while others have questioned its presumed autonomy from scientific disciplines (Wittgenstein, Carnap, Quine).

It also seems correct to say that periods of great theoretical flourish in metaphysics have been followed by periods of self-reflection and doubt concerning both the subject-matter of metaphysics as well as its method of inquiry. I believe that we are currently in this self-reflective phase, that there are good reasons why we are here, and that indeed we ought to re-examine the way we do metaphysics today (for the sake of metaphysics and philosophy more broadly).

My contribution to this debate, however, does not take the form of a top-down approach. I do not wish to question the legitimacy of traditional metaphysical and ontological questions in general terms. On the contrary, I want to engage in bottom-up analysis of certain metaphysical questions that I take to be pseudo-questions. I understand “pseudo-questions” in a specific (non-Carnapian) sense – I take them to be complex questions in disguise, that is, questions that tacitly take for granted certain unsubstantiated assumptions. The responses to these questions are also frequently constrained by those very same unsubstantiated assumptions. My worry is that such questions abound in metaphysics today and that one of the most important services that we can provide to the discipline is to patiently and rigorously untangle and clarify such pseudo-metaphysical questions.

I present three case study candidates for metaphysical pseudo-questions: 1) the question “Why is there something rather than nothing?”; 2) Bradley’s regress problem; and 3) the question of “What grounds what?”. In each case I uncover the underlying assumptions that have contributed to the formulation of the problem as we know it, and in each case I dispute those assumptions. The result of such an analysis of pseudo-questions will not always be a complete rejection of the original question; in some cases we will settle on a more perspicuous formulation of a problem that is in the vicinity of the original one.

THE ONTOLOGY OF SCIENTIFIC REALISM FROM A DEFLATIONARY PERSPECTIVE

Jesús Zamora-Bonilla
UNED, Madrid
jpzb@fsof.uned.es

In this paper I defend the claim that there is no significant frontier between ‘metaphysical’ and ‘scientific’ problems within scientific knowledge, but that, instead, the most basic questions in the metaphysics of science can be formulated as ‘scientific’, rather than ‘philosophical’ questions. By way of example I discuss two traditional ontological problems in the philosophy of science: the idea of metaphysical realism as the ‘best explanation’ of the empirical success of theories, and the question of the ‘continuity of reference’ of theoretical terms. I tackled these problems with the help of a deflationary, inferentialist semantics (e.g., Horwich, 1990; Brandom, 1994).

Regarding the first question, applying the deflationary understanding of truth to claims like “the truth of T explains the empirical success of T”, we obtain something like “T explains such and such empirical facts” (for ‘the truth of T’ is equivalent to what T asserts, and ‘the empirical success of T’ is equivalent to the fact that T entails some empirical facts that we know to be true). But “T explains such and such empirical facts” is not a ‘metaphysical’ or ‘philosophical’ claim, but an ordinary ‘scientific’ claim. Hence, under the appearance of a metaphysical problem there is only a scientific problem reformulated in metaphysical language.

Regarding the question of the continuity of reference, it is argued that, in the case of two consecutive theories T and T’, containing theoretical terms t and t’, whose definitions are partially similar but incompatible (e.g., the term ‘electron’ in Lorentz’s and Schrödinger’s theories, or ‘virus’ and ‘prion’ in the case of the theories trying to explain the cause of Bovine Spongiform Encephalopathy), there is no logical nor empirical way to determine whether the objects to which T and T’ refer with the term t are ‘the same’ or not, because the empirical content of each theory is compatible both with the claim that the ‘old’ and the ‘new’ objects are the same, and with the claim that they are not. So, the choice of a ‘continuous’ or a ‘discontinuous’ reference can only be justified on pragmatic grounds (what choice of ways of identifying the reference of a term better help to carry out theoretical discussions, for example), and the pragmatic reasons of scientists themselves seem to be, by default, more important than those of the philosophers.

The conclusion of the paper is that a metaphysics of science is an important philosophical endeavour, but not in the sense of helping us to discover ‘facts about the world’ that scientific research is by itself unable to ascertain, but in the sense of providing us a philosophical understanding of the role that ‘ontological’ language plays in the structure and the practice of science.

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SCIENTIFIC METAPHYSICS, JUSTIFICATION, AND FUZZY DISCIPLINARY BOUNDARIES

Author: **Amanda Bryant**

Author Affiliation: The Graduate Center, CUNY

Contact: abryant@gradcenter.cuny.edu

In previous work, I have argued that for methodological and epistemological purposes, we should distinguish two kinds of metaphysics:

1. metaphysics that proceeds roughly independently of science and is constrained primarily by demands for consistency, simplicity, intuitive plausibility, and explanatory power; and
2. metaphysics that engages conscientiously with the theories and practices of science.

I have argued that metaphysics of the first kind is frequently taken to aim at knowledge but in fact fails to produce justified theories. In this paper, I will argue that metaphysics of the second kind both aims to and succeeds in producing epistemically justified theories (but since I maintain that scientific anti-realism should be kept a live option, I don't claim that such metaphysics produces knowledge). I will argue that the more robustly science constrains metaphysics, the more epistemic warrant metaphysics receives.

But as support grows among philosophers for the naturalization of metaphysics, as the discipline of scientific metaphysics continues to burgeon, and as metaphysicians look with increasing regularity toward scientific evidence, the border between science and metaphysics grows continually fuzzier. The more closely we tie metaphysics to science, the less clear it is that metaphysics is or should be an autonomous form of inquiry. In fact, I will argue that naturalized or scientific metaphysics and highly theoretical forms of science are roughly continuous both in their domain and in their methods. But then, what role, if any, should philosophers play in such an inquiry? I argue that philosophical training lends itself particularly well to a number of tasks that are integral to the construction of a scientifically-informed worldview.

THE SCIENCE OF THE POSSIBLE

James TM Miller
Trinity College, Dublin

Recently, there has been a debate about the subject matter and methodology of metaphysics, and whether it differs in either, both, or neither from the subject matter and methods of empirical science.

In this paper, I argue that 'metaphysics' is *both* the a priori investigation into the possible ways that reality as a whole might be (the science of the possible), *and* the investigation into which of those possible ways is the way that reality as a whole *actually* is. Crucially, I argue that this conception does not diminish the role of the empirical scientist. Rather, under this account, science and metaphysics are complementary endeavours.

To do this, I first outline and extend the view that metaphysics is the science of the possible from how it appears in the work of EJ Lowe (2011: 100), accepting that claim without following Lowe in thinking that metaphysics is the science of essence in addition to being the science of the possible.

Following this, I argue that we should distinguish between 'broad' metaphysics and 'narrow' metaphysics. I will argue that metaphysics narrowly conceived that is the 'science of the possible', but that this narrow, predominantly a priori, metaphysics is intrinsically connected to the broader, more empirically informed, metaphysics as the study of the (actual) fundamental nature of reality as a whole. This distinction leads to a complementary relationship between science and metaphysics. Science (and broad metaphysics) seeks to understand how reality actually is; (narrow) metaphysics seeks to understand how reality might be.

However, these two tasks cannot be done in isolation. A good metaphysics needs science, and a successful science needs metaphysical theorising in order to aid in assessing the theories currently available and to see what options new data might open up for us to explore further (or, indeed, what options new data might close, leading us to cease exploring such options).

Metaphysics as the science of the possible therefore results in the view that, in Lowe's words, 'when both are conducted fruitfully, metaphysics and empirical science exist in a symbiotic relationship, in which each complements the other (2011: 101–102).

RADICAL EMPIRICISM ABOUT METAPHYSICAL KNOWLEDGE – A CASE STUDY

Daniel Dohrn
Humboldt University Berlin

Traditionally, metaphysics has been hailed as the domain of reason. This view has given rise to philosophical exceptionalism. However, more recently, competing empiricist approaches to certain key areas of metaphysics have emerged. They raise hopes for integrating these key areas into science. As a case study, I discuss a radically empiricist approach to the epistemology of metaphysical modality. According to Martinez (2015), both probability and - by a suitable link- possibility can be known by evolutionarily selected bodily mechanisms.

First, I address what I call the 'Generality Problem', using an analogy. Bees 'know' to build hexagonal shapes, but they arguably thereby do not know geometry. To know geometry, one has to be able to solve a great variety of geometrical issues. In a similar vein, to know probabilities, one would have to track a great variety of probabilities. Bodily mechanisms tracking probability may be arbitrarily sophisticated. But at some point, their sophistication will amount to instantiating higher cognitive capacities. I discuss whether this leads us back to rationalism.

Second, I address the purported connection to possibility. I distinguish two relevant alternatives. The first alternative is that bodily mechanisms of the sort discussed by Martinez do not track possibilities at all. This may be because there is no metaphysical connection between possibility and positive probability. Or it may be because bodily mechanisms do not track probabilities in the first place but rather, say, frequencies. In neither case Martinez has provided bodily mechanisms of knowing metaphysical possibilities.

The second alternative is that the connection holds and bodily mechanisms do track probabilities. In that case, we still need to establish knowledge of the connection to proceed from knowledge of probabilities to knowledge of possibilities. This knowledge can only be attained by metaphysical considerations addressing the relationship between probability and 1 possibility. The capacities required to follow these metaphysical considerations are rational capacities. I conclude that rationalists have good reasons to doubt that primitive bodily mechanisms suffice for knowing metaphysical possibilities.

Manolo Martinez, "Modalizing Mechanisms," *The Journal of Philosophy*, cxii (2015): 658- 670, p. 659.

TRUTHMAKERS, EXPLANATION, AND THE STRUCTURE

Karol Kleczka
Jagiellonian University, Cracow

In my presentation, I would like to answer the question whether metaphysical truthmakers can help to explain the problem of negative existential truths.

Usually it is thought that truthmakers have two basic functions. Firstly, they serve to explain how true sentences are made true by the world. Secondly, truthmaker theorists believe that the notion of truth can be adequately explained by presenting a relation that holds between a truthmaker, which is an entity from the world and a sentence, which is a semantic object. Therefore, truthmakers fill the gap between metaphysics and semantics. If one amends the Truthmaking Principle with some additional hypothesis (esp. Maximalism), one can conclude that if a sentence is true then there exists some entity which makes it true.

The problem that I would like to discuss is a challenge of negative existential truths. Originally it was raised by George Molnar [2000] who argued that it is impossible to hold the Truthmaking Principle since there is a class of true sentences for which one cannot present any positive truthmakers. Because of that truthmaking does not provide a satisfactory explanation of truth.

I am going to present one possible answer to this problem which uses the notion of a structure [Sider 2011]. When we assume an identity of the structure of language and the structure of world [Horwich 2009], it might provide us with an explanation of how the controversial class of negative truths is made true. I am going to show how it can work and whether it gives a sufficient answer to Molnar's problem that fulfills two initially presented functions of (1) of explaining making-true and (2) of explaining the notion of truth.

STRUCTURAL PLURALISM

Alessandro Torza

UNAM

In his *Writing the Book of the World*, Ted Sider has mounted a defense of realism about fundamental structure, or joint-carving. Sider's epistemology of structure comes in the form of a *criterion of ideological commitment*: we should regard as structural those notions which are indispensable to the formulation of the best total theory. A key problem with that criterion is that it embodies a uniqueness presupposition, since, for all we know, there might be a plurality of best theories. As argued by Tom Donaldson (2004), we should therefore revise the criterion and assume that a notion is structural just when it (or a synonym) occurs in *all* best total theories.

The revised criterion of ideological commitment, however, leads to trouble, for if not all best theories are formulated in terms of the very same quantifier, or if some theory is not quantificational (e.g., as in predicate- functor logic), no existence meaning is going to be structural. And in the absence of a structural existence meaning, it would be impossible to write 'the book of the world', i.e., to produce a fundamental description of reality. We are therefore left with a challenge: is realism about structure compatible with the possibility of multiple best total theories?

In order to meet the challenge, I articulate and defend *structural pluralism*, the view that there is a plurality of metaphysically relevant notions of 'structural' (expressible by means of a stock of primitive predicates 'structurale', 'structural', etc). For if there are multiple ways of best describing reality, and if we believe, with Sider, that theory choice tracks structure, then there are multiple ways of carving reality's joints. Insofar as a term can be joint-carving in any of those ways, then there is not one, but multiple 'structural' predicates.

Once a multiplicity of 'structural' predicates is postulated, we must specify a relevant epistemic criterion. I submit a *pluralistic criterion of ideological commitment*: given an enumeration of our best theories, a notion is structural just in case it (or a synonym) occurs in the *n*th best theory.

As it turns out, it can be shown that structural pluralism is able to meet the aforementioned challenge. For if, on the one hand, there is exactly one best theory, then structural pluralism is demonstrably equivalent with Sider's monism, and so it entails that there is a single metaphysically privileged language in which to write the book of the world. If, on the other hand, there is a number of best theories employing different existence meanings, structural pluralism entails that there is a plurality of books of the worlds, each formulated in a different language, rather than no book at all. Thus, pluralism is overall superior to monism when it comes to guaranteeing the existence of a joint-carving description of reality.

More generally, since structural pluralism has *ceteris paribus* overall greater explanatory power than monism, abductive considerations—the same kind of considerations which Sider has offered—recommend that we choose pluralism over monism.

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