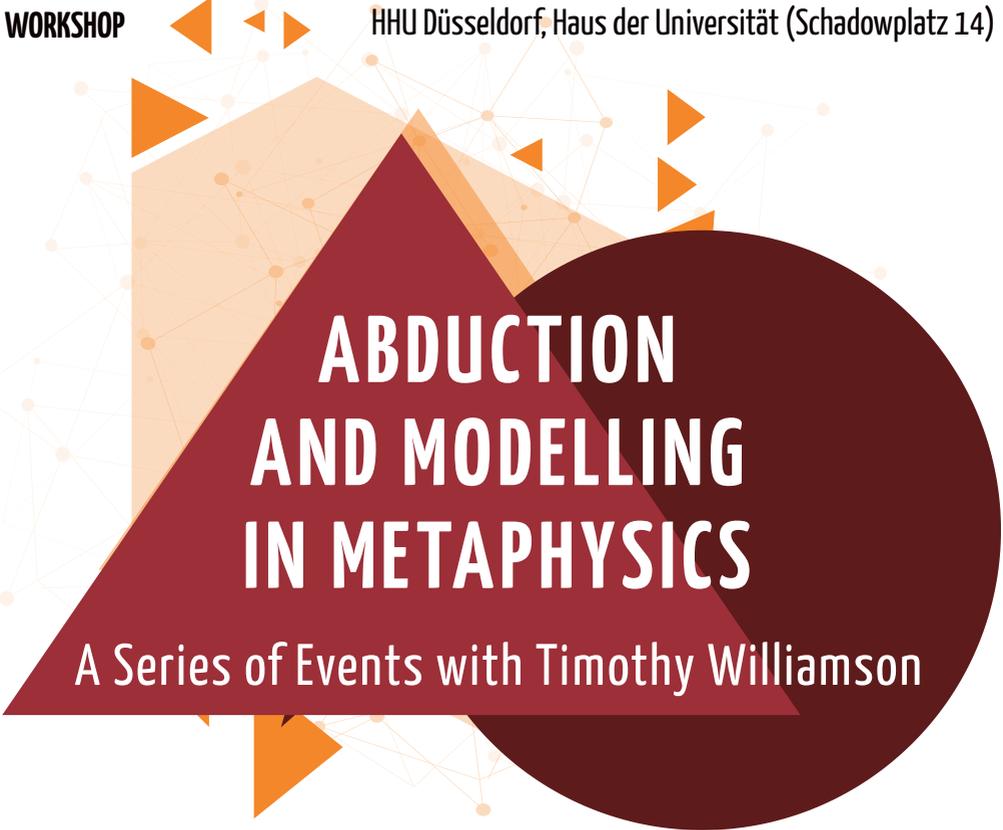


December 6-7, 2018

WORKSHOP

HHU Düsseldorf, Haus der Universität (Schadowplatz 14)



ABDUCTION AND MODELLING IN METAPHYSICS

A Series of Events with Timothy Williamson

WORKSHOP SPEAKERS

(MANCHESTER) HELEN BEEBEE
(ISU) STEPHEN BIGGS
(CNRS, PARIS) IGOR DOUVEN
(NYU) TIM MAUDLIN

ILKKA NIINILUOTO (HELSINKI)
GERHARD SCHURZ (HHU)
MEGHAN SULLIVAN (NOTRE DAME)
TIMOTHY WILLIAMSON (OXFORD)

Abduction and Modelling in Metaphysics

Workshop Details

- Date: December 6–7, 2018
- Venue: Haus der Universitaet (Schadowplatz 14, 40212 Duesseldorf) of the University of Duesseldorf
- Funding: German Research Foundation (DFG), research unit: *Inductive Metaphysics* FOR 2495. The goal of the research unit is to establish how empirical sources and inductive forms of inference play a role in metaphysical research.
- Organisation: Christian J. Feldbacher-Escamilla & Sigfried Jaag & Markus Schrenk & Gerhard Schurz (University of Duesseldorf)
- Contact: christian.feldbacher-escamilla@hhu.de
- Website: <https://indmet.weebly.com/abduction-and-modelling-in-metaphysics.html>

Speakers

- Helen Beebee (University of Manchester)
- Stephen Biggs (Iowa State University)
- Igor Douven (CNRS, Paris)
- Tim Maudlin (NYU)
- Ilkka Niiniluoto (University of Helsinki)
- Gerhard Schurz (University of Duesseldorf)
- Meghan Sullivan (University of Notre Dame)
- Timothy Williamson (University of Oxford)

Description

Methodological questions have been in the focus of many recent philosophical debates. The role of thought experiments, the method of cases, intuitions, etc. has been studied intensively within metaphilosophy. This reflective attitude is often considered to be a characteristic feature of philosophical investigation and, hence, it is no surprise that occasionally it results in some kind of self-application. In metaphysics, recent severe criticism of traditional investigations led to quite versatile metametaphysical stances: There is the radical sceptical approach according to which metaphysical studies better dissolve in the corresponding branches of science rather than being performed in an encapsulated way; and there is the other end of the spectrum according to which metaphysics is a self-standing endeavour to be conducted in an a priori fashion. In between are more moderate stances proposing that metaphysical investigation ought to employ both, scientific findings and methods on the one hand, and conceptual analysis and methods of traditional metaphysics on the other. Inductive metaphysics, for example, aims at applying the abductive and modelling methodology of science within metaphysical investigation. Such an approach, however, raises several questions: What does the abductive methodology exactly consist in and what is its epistemic rationale? How are metaphysical models to be characterised and evaluated and what constitutes metaphysical data and evidence? What distinguishes such an inductive metaphysical approach from naturalising metaphysics? This workshop aims at exploring some of these and related questions regarding the theoretical presuppositions of metaphysical methodology.

Schedule

Thursday, December 6, 2018:

- 10:00–11:00 Stephen Biggs: *Towards an Abduction-based Epistemology of Metaphysics*
- 11:00–11:30 Coffee Break
- 11:30–12:30 Ilkka Niiniluoto: *Abductive Arguments for Ontological Realism*
- 12:30–14:30 Lunch Break
- 14:30–15:30 Gerhard Schurz: *Abduction as a Method of Inductive Metaphysics*
- 15:30–16:00 Coffee Break
- 16:00–17:00 Timothy Williamson: *Abduction in Logic and Mathematics*
- 18:00– Dinner

Friday, December 7, 2018:

- 10:00–11:00 Igor Douven: *Putting Prototypes in Place: An Engineering Approach*
- 11:00–11:30 Coffee Break
- 11:30–12:30 Helen Beebe: *Peer Disagreement and Scepticism in Metaphysics*
- 12:30–14:30 Lunch Break
- 14:30–15:30 Meghan Sullivan: *Modal Logic and the Methodology of Metaphysics: A Case Study in the Relationship Between Formalism and Abduction*
- 15:30–16:00 Coffee Break
- 16:00–17:00 Tim Maudlin: *Metaphysics Renaturalized*

Abstracts

Helen Beebee:

Peer Disagreement and Scepticism in Metaphysics

he fact of endemic peer disagreement in metaphysics — and, more importantly, the degree of choice we have between equally reasonable options we have between different methodological principles that often generates such disagreement — leads inevitably, I argue, to scepticism about many, indeed perhaps most, substantive metaphysical theses. Where does this leave us, as working philosophers? What kind of epistemic (or other) attitude to philosophical claims does such scepticism permit?



Stephen Biggs:

Towards an Abduction-based Epistemology of Metaphysics

ere, I advance the claim that abduction is the ultimate arbiter of metaphysical disputes, i.e., I advance an abduction-based epistemology of metaphysics. I focus on three questions. First, what is an abduction-based epistemology of metaphysics? Second, are there good reasons to reject an abduction-based epistemology of metaphysics? Third, are there good reasons to endorse an abduction-based epistemology of metaphysics? I initially address the what-is question by comparing abduction-based and conceiving-based approaches, emphasizing the crucial differences between them, and suggesting that these differences also hold between an abduction-based epistemology of metaphysics and other familiar alternatives, such as those focusing on intuition. I further address the what-is question by identifying two important precursors of an abduction-based epistemology of metaphysics, Kant's work on synthetic a priori judgments and Carnap's work on meaning and modality. Next, I address the why-not question by elucidating and then countering what I take to be the main objection to an abduction-based approach—viz.

that abduction, being an a posteriori mode of inference, cannot deliver metaphysical knowledge. Finally, I address the why question by sketching advantages that an abduction-based approach has over any conceiving-based alternative (and other familiar alternatives)—for example, abduction can deliver a wider range of metaphysical knowledge than conceiving can, and an abduction-based approach implies a plausible account of metaphysical dispute while a conceiving-based approach implies an implausible account of metaphysical dispute.



Igor Douven:

Putting Prototypes in Place: An Engineering Approach

St has recently been proposed that natural concepts are concepts represented by the cells of an optimally partitioned similarity space. In this proposal, the notion of optimal partitioning has been defined in terms of rational design criteria, criteria that a good engineer would adopt if they were asked to develop a conceptual system for creatures like us. It has been argued, for instance, that convexity should rank high among such criteria. Other criteria concern the possibility to place prototypes such that they are both similar to the items they represent (each prototype ought to be representative) and dissimilar to each other (the prototypes ought to be contrastive). There is already some empirical evidence in support of this proposal. Here, I present the results of a new study offering further support. In particular, I present data concerning color similarity space, indicating that color prototypes are indeed located such that they strike the best balance between being representative and being contrastive.



Tim Maudlin:
Metaphysics Renaturalized

 ver since Quine, there has been a rhetorical trope about how a certain strand of the philosophical tradition (sometimes referred to as “analytic philosophy”) is in the business of “naturalizing” some branch of traditional philosophy. In Quine’s case, the target was often epistemology, but in more recent days a common target is metaphysics. The overall impression produced by this rhetoric is that the branch of traditional philosophical investigation is getting a radical make-over by being harmonized with—or even absorbed into—the scientific enterprise. Given that philosophy departments sit in the Humanities rather than the Science faculty, this might appear to be a radical shift in orientation.

I will argue that this whole rhetorical trope and the impression it creates is fundamentally misleading. Traditional metaphysics—going back to Aristotle—was always thoroughly naturalized, and there was no distinction at all between the methods of the sciences and the methods of philosophy. This aspect of traditional metaphysics was a triviality, not a contentious thesis. What interrupted the great historical river of naturalized metaphysics was Kant, who insisted—for reasons that are now widely recognized as completely fallacious—that metaphysics had to be an *a priori* discipline, in a novel sense of *a priori* that precluded appeal to empirical data. Aristotle and his successors would not have accepted this for a second and were perfectly right not to. Ontology—which is what metaphysics is—has always been empirically based, at least when it comes to the physical world.

In sum, the “naturalization” of metaphysics is not some modern innovation, it is rather the deKantification of metaphysics, and is long overdue.



Ilkka Niiniluoto:

Abductive Arguments for Ontological Realism

he thesis of ontological realism (OR) holds that at least part of reality is ontologically independent of human mind and culture. OR is compatible with many philosophical positions, like various forms of materialism and dualism. The main opponents of OR are subjective idealists, solipsists, phenomenologists, and social constructivists – and some logical positivists and pragmatists who deny that OR and its negation are meaningful statements. In spite of his objective idealism in metaphysics, Charles Peirce can be regarded as an advocate of OR. He also applied his idea of abductive reasoning to examples in science and metaphysics. OR has been defended by appealing to common sense (G. E. Moore) and by transcendental arguments (John Searle), but it is most interesting to see that the strongest arguments for OR are abductive. Against subjective idealists, who claim that the table in front of me is ontologically dependent on its being perceived, the realist can point out that the table is invariant with respect to my senses (seeing it, feeling it, smelling it, and knocking on it), my perceptions at different moments of time, and perceptions by different persons and even recording instruments like cameras. The inference from agreeing perceptions to ordinary three-dimensional physical objects is abductive in Peirce's sense, i.e. it reasons from effects to causes by the principle of common cause. The same kinds of abduction are used in science in inferences to theoretical entities: the best explanation of an observed curved path in Wilson's cloud chamber is the existence of an electron. Strong evidence for the existence of electrons comes from our ability to use their properties in engineering applications to interfere in other parts of nature. And anyone who infers by abduction to the reality of the past, in particular to entities like dinosaurs who existed before any human minds and languages had appeared on the earth by evolution, is committed to admit that such entities are ontologically mind-independent.



Gerhard Schurz:

Abduction as a Method of Inductive Metaphysics

reative abduction is a sort of inference to the best explanation that introduces new concepts into the conclusion. Logically, these are concepts that are not contained in the premises and are relevant parts of the conclusion. Ontologically, these concepts describe theoretical ('hidden') entities whose existence is assumed in order to explain the empirical phenomena described in the premises of the inference.

In my talk I will argue for two theses:

1. Creative abductive inferences are not only important in science; they are at the same time a cornerstone of the method of inductive metaphysics.
2. Like scientific abductions, metaphysical abductions have to satisfy two basic rationality criteria that distinguish them from purely speculative abductions: (i) unification power and (ii) independent testability.

In the first part of this talk I will explain these theses at hand of the method of common cause abduction (the inference to hidden common causes). In the second part, I will try to show how certain causality principles can themselves be justified by creative abduction.



Meghan Sullivan:

Modal Logic and the Methodology of Metaphysics: A Case Study in the Relationship Between Formalism and Abduction

 It is widely taken to be a benefit of a theory of metaphysical modality if it can be formally systematized. Of course, many debates in philosophy proceed perfectly well in natural language, and indeed, there are many debates in metaphysics that make no attempt at formalization. Why do we proceed this way in debates about modal metaphysics? After dismissing a few naive theories, I will look at two prominent methodological arguments for systematization – the instrument argument and the ideological argument. I'll discuss gaps in each of these arguments. And I will offer a qualified defense of what I call the Disconnect Hypothesis:

There is no reason to think the best “realist” theory supplied in answer to the metaphysical project should resemble a modal logic.

In the process I will also discuss how sophisticated inductive and abductive principles manifest in the modal debate right now.



Timothy Williamson:

Abduction in Logic and Mathematics

 ertrand Russell proposed an ‘inductive’ (i.e. abductive) methodology for identifying and justifying first principles of logic and therefore, in his view, of mathematics. That methodology fits the way in which foundational questions in logic and mathematics continue to be debated. The talk will cover various issues in the implementation of abductive methodology in such cases, including its application to expressions outside standard lists of logical constants (e.g. truth and falsity predicates and modal operators), and the role of mathematics in the natural and social sciences. Abductive methodology is arguably even more powerful in these areas than it is usually taken to be.