(Non-)Reductionism in the Metaphysics of Mind

WORKSHOP

Salzburg
September 8, 2022

DCLPS

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(Non-)Reductionism in the Metaphysics of Mind

Workshop Details

- Date: September 8, 2022

- Venue: University of Salzburg (in the course of the SOPhiA 2022 conference)

- 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.

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Speakers

- Thomas Blanchard (University of Cologne)

- Christian J. Feldbacher-Escamilla (University of Cologne)

- Alexander Gebharter (UNIVPM, Ancona)

- Vera Hoffmann-Kolss (University of Bern)

- Andreas Hüttemann (University of Cologne)

- Raphael van Riel (University of Duisburg-Essen)

- Maria Sekatskaya (University of Düsseldorf)

Aims & Scope

Many theories in the social sciences and humanities use concepts referring to mental properties. These concepts are currently not replaceable with concepts from more fundamental scientific theories. The irreducibility of mental concepts and the explanatory role they play in scientific explanations of higher-level sciences led to the conclusion that mental properties are real, causally efficacious, and non-identical to physical properties. This gives us a reason to reject reductive physicalism. However, there are metaphysical reasons to accept it. One of the most famous is the causal exclusion argument, which claims that physicalist ontology and the thesis of the causal closure of the physical, together with the idea that mental properties are not identical to physical properties, entail the causal inefficacy of the mental. This workshop addresses different aspects of reductive and non-reductive accounts in the metaphysics of mind with a particular emphasis on which accounts constitute a better explanation of the mental. Contributions discuss the history of reductionism and its connection to logical positivism, the emergence of non-reductive physicalism, the contemporary state of the art in the debate between reductive and non-reductive physicalist accounts of the mental, and the perspectives of this debate within the framework of inductive metaphysics and the relative weight of conceptual versus empirical arguments in this debate. The causal exclusion argument and the different non-reductive strategies to counter it will be of particular interest.

Schedule: September 8, 2022 (CET)

16:00 — 16:10   *Workshop Introduction*

16:10 — 16:50   Alexander Gebharter: *Causal Exclusion and Causal Bayes Nets*

16:50 — 17:30   Thomas Blanchard & Andreas Hüttemann: *Causal Modeling, Causal Exclusion and Mutual Dependence*

17:30 — 17:50   *Break*

17:50 — 18:30   Vera   Hoffmann-Kolss: *Interventionism, Monotonicity Principles, and Causal Exclusion*

18:30 — 19:10   Raphael van Riel: *Reductionism and Representationalism about the Mental/Non-Mental Distinction*

19:10 — 19:50   Christian J. Feldbacher-Escamilla & Maria Sekatskaya: *(Non-)Reductionism in Philosophy of Science and Philosophy of Mind*

19:50 — 20:00   *Workshop Closing*

Abstracts

**Thomas Blanchard (University of Cologne) &
Andreas Hüttemann (University of Cologne):**
Causal Modeling, Causal Exclusion and Mutual Dependence

An important question for the causal modeling approach is how to integrate non-causal dependence relations such as asymmetric supervenience into the approach. Strikingly, the most prominent proposal to that effect (due to Gebharter) entails that multiply realizable properties are causally powerless. If correct, this result is a striking vindication of Kim's causal exclusion objection against nonreductive physicalism. This paper argues, however, that Gebharter's framework should be rejected, and proposes a significantly different way of integrating non-causal dependencies within the causal modeling framework that dissolves exclusion worries. Gebharter's framework, we argue, leads to serious problems when applied to part-whole relationships: in particular, it entails (implausibly) that composite entities are causally inefficacious. In our view, the key mistake in the framework is the assumption that in causal modeling, non-causal dependencies should be treated as akin to causal relationships. We argue that this assumption is poorly motivated, and neglects certain crucial differences between causal and non-causal dependencies, notably the fact that non-causally related variables are mutually manipulable. This in turn suggests that in causal modeling, non-causal dependence relationships are best represented as mutual dependence relationships. We develop a new kind of causal model based on this suggestion which we call 'hybrid models'. Hybrid models differ from causal Bayes nets (the most familiar type of model in the causal modeling approach) in that they contain both arrows (representing direct causal dependence) and bidirected edges (representing direct mutual dependence). Another difference is that hybrid models contain information about levels of reality at which variables are located. We formulate plausible Markov and minimality conditions for hybrid models, and show that the resulting framework fully vindicates the causal efficacy of multiply realizable properties and composite entities.

Christian J. Feldbacher-Escamilla (University of Cologne) & Maria Sekatskaya (University of Duesseldorf):
(Non-)Reductionism in Philosophy of Science and Philosophy of Mind

eduction in philosophy of mind is usually understood in a very strong sense: as a complete reduction of all mental predicates to physical predicates. In the early stages of logical empiricism, this type of reduction was considered to be about explicit definability/translatability of theoretical predicates with the help of empirical predicates. In philosophy of mind, non-reducibility of mental predicates is often used to postulate ontological distinctness of mental properties. However, the step from the failure of explicit definability of mental concepts in terms of physical concepts to proclaiming that mental phenomena are ontologically non-identical to anything physical does not appreciate the complexity of different forms of scientific reduction. As we will outline, the discussions of reduction and reductionism in philosophy of mind and philosophy of science diverged quite a lot. Whereas in philosophy of mind any form of linking mental to physical concepts that is not based on identification or explicit definability is labelled as "non-reductive", in philosophy of science, explicit definability is considered the strongest, but not the only possible, form of reduction. A weaker form of reduction is that of employing bilateral reduction sentences for theoretical predicates such as dispositional terms. But even this approach was quickly found to be untenable, for which reason a weaker constraint of reduction in terms of empirical confirmability of propositions with theoretical predicates was put forward in the classical empiricist programme. In this talk, we are going to compare the usage of this concept in these different strands of debate, and outline a new, and potentially fruitful classification that integrates philosophy of science and philosophy of mind debates better with each other.

Alexander Gebharter (UNIVPM, Ancona):
Causal Exclusion and Causal Bayes Nets

In this paper I reconstruct and evaluate the validity of two versions of causal exclusion arguments within the theory of causal Bayes nets. I argue that supervenience relations formally behave like causal relations. If this is correct, then it turns out that both versions of the exclusion argument are valid when assuming the causal Markov condition and the causal minimality condition. I also investigate some consequences for the recent discussion of causal exclusion arguments in the light of an interventionist theory of causation such as Woodward's (2003).

Vera Hoffmann-Kolss (University of Bern):
Interventionism, Monotonicity Principles, and Causal Exclusion

One crucial challenge for interventionist theories of causation is to develop criteria for variable choice. What variables should an apt causal model contain? This question arises especially in causal exclusion contexts, where the question is whether an apt model can contain variables standing in supervenience relations (or other metaphysical dependence relations) to each other.

In this paper, I argue that the set of variables constituting a model should satisfy the following monotonicity requirement: the causal relations occurring in the model would not disappear if further variables were added that do not lead to a violation of Woodward's Independent Fixability constraint. This precludes causal exclusion scenarios that contain variables standing in supervenience relations to each other from being considered apt models.

I furthermore argue that the variables hypothetically added to a model must not only be in accordance with the Independent Fixability constraint, but must also be at least as natural as the variables already included in the model. A general implication of this is that the adequacy of causal models depends on stronger metaphysical assumptions than proponents of interventionism typically assume.

Raphael van Riel (University of Duisburg-Essen):
*Reductionism   and   Representationalism   about   the
Mental/Non-Mental Distinction*

I n this talk, I discuss a view proposed by Carl Hempel in his paper 'Reduction: Ontological and Linguistic Facets', published in 1969. Hempel suggested that questions regarding the relation between mental states and physiological states should be given what he calls a 'linguistic' (and what I call a 'representationalist') interpretation. I will explicate Hempel's suggestion and sketch one argument in favor of this view.