THE BOOK OF ABSTRACTS METHOD AND CONVERGENCE 2025 International Conference on Methodology of Philosophy 2-4 June 2025 University of Helsinki, Finland

This document contains abstracts of the conference speeches arranged in alphabetical order.

This conference brings together thinkers exploring philosophical methodology from different viewpoints. The focus is on the question of what kinds of methodologies could foster progress in philosophy, and on the question of how philosophy could foster progress in science. The conference will address these and other questions under the following themes:

- Methodology and progress of philosophy in general
- How can philosophy foster progress in science?
- How can scientific methods foster progress in philosophy?
- How can artificial intelligence foster progress or accelerate research in science and philosophy?
- Forms of peer review bias and their resolutions

The conference is organised by the research project *Appearance and Reality in Physics and Beyond*, located in the **Department of Philosophy**. **History and Art Studies**, at the University of Helsinki, in cooperation with <u>Helsinki Institute for Social Sciences and Humanities</u>, **Physics Foundations Society**, **Philosophical Society of Finland** (Suomen Filosofinen yhdistys), <u>The Finnish Society for Natural Philosophy</u> (Luonnonfilosofian seura), <u>The Finnish Society for the History of Science and Learning</u> (Suomen Oppihistoriallinen Seura), and <u>The Finnish Society for Futures Studies</u> (Tulevaisuuden tutkimuksen seura).

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History and progress: a functional account of philosophical progress

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Current views on philosophical progress rely on the epistemic monism assumption, which claims that epistemic achievements broadly constructed constitute philosophical progress. This assumption organises the current state of the debate on philosophical progress. On one hand, pessimists argue that philosophy cannot or does not reach or barely reach the achievements constituting philosophical progress. On the other hand, optimists argue that philosophy reaches the achievements constituting philosophical progress. However, I argue that the history of philosophy shows that the current debate is inadequate because epistemic monism neglects the historical nature of philosophical progress, making it unable to provide an informative and comprehensive of it. To avoid the limitations of epistemic monism, I will put forward a view on philosophical progress that integrates the history of philosophy into our considerations about it. The outcome is a view that recognises the historical nature of philosophical progress the historical nature of philosophical progress the historical nature of philosophy and progress the historical nature of philosophy and progress the history of philosophy into our considerations about it.

I will divide my paper into two parts. First, I will show that epistemic monism fails to account for paradigmatic cases in the history of philosophy. To this end, I will argue that epistemic monism commits with what Kelly (2005) calls hyper-methodism, which is the view that theoretical assumptions inform our judgements, neglecting the consideration of cases. Commitment to hyper-methodism has two consequences for epistemic monism. It can't account for paradigmatic cases of philosophical development in the history of philosophy and distorts the fact that philosophical progress is historical. Second, I will introduce a functional account of philosophical progress, which defines progress as the compared degree of efficiency by which philosophical traditions within a historical niche comply with their function. The functional account explains historical cases of philosophical progress because it departs from the history of philosophy in building our judgements on philosophical progress. The outcome is a more illuminating, comprehensive, and historically informed view of philosophical progress.

Naturalizing the Mind and the Ignorance Hypothesis

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Daniel Stoljar's 'Epistemic View' is based on his 'Ignorance Hypothesis' holding that we are ignorant of (non-standard) physical facts whose knowledge would explain away our antiphysicalist problem intuitions. Nonstandard physical facts are ones discovered during scientific revolutions and that conflict with the manifest view. I argue that Stoljar's Epistemic View is more relevant to the project of naturalizing the mind than either Chalmers' dualistic naturalism or that of standard physicalism despite the fact that Stoljar himself does not think that the epistemic view is compatible with traditional naturalism because of its reliance on what we do not know and cannot imagine. However, while the more ambitious versions of the epistemic view, like the Russellian and Mysterian ones, do not seem compatible with naturalism (because of the way they set *a priori* epistemic limits on empirical investigation and make problematic metaphysical commitments), Stoljar's nonstandard Epistemic View provides traditional naturalism a way to 'naturalize' novelty by accepting ignorance; one can believe both that there is nothing above and beyond the natural world and that we are ignorant about large parts of it.

An interesting class of 'less ambitious' non-standard physical facts are generated by sciences that mature to the point of determining their own scope and limitations. One example is classical mechanics maturing to the point of producing quantum indeterminacy and Heisenberg's uncertainty. Arithmetic's maturing to the point of producing Gödelian undecidability is another 'internal' epistemic limit, while the speed of light is an internal modal determination made by the maturation of Newtonian theory. In all these cases we discovered physical facts stranger than the imagination, if not downright impossible (see Pitowsky, 1994), whose emergence demanded patience and suspension of premature 'philosophical intervention'. I believe the emergence of such non-standard facts shows naturalism's commitment to the empirical at its best, especially when they defy common sense. Not only does the epistemic view minimize metaphysical commitments and is suspicious of *a priori* epistemic constraints on what's empirically possible, it is also sympathetic to replacing strange metaphysics with strange physics, commensurate with the spirit of naturalism. It also strikes a good balance between the philosophical and the scientific and is compatible with a non-standard version of Ladyman and Ross's (2007) principle of naturalistic closure and the way it relates metaphysical significance to fundamental physics without embracing total replacement of the philosophical. A question that arises from the above is: how does the epistemic status of that which is considered non-physical (because it cannot be known physically) change if physics itself is rich enough to show that it cannot be known physically? I will end with a 'radical' thought experiment by Leonard Susskind that shows that such 'opaque' mechanisms are conceivable and that that is enough to protect physicalism from Chalmers' Conceivability Argument.

Pitowsky, I. (1994) George Boole's 'Conditions of Possible Experience' and the quantum puzzle, *British Journal for the Philosophy of Science*, 45 (1), pp. 95–125.

Ladyman, J. & Ross, D. (2007) Every Thing Must Go, Oxford: Oxford University Press.

Why do we evaluate moral theories differently? — Is persistent disagreement on moral theory due to disagreement on criteria and data?

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Why is there persistent disagreement in the field of moral theory? In the field of moral theory, there is persistent disagreement on how plausible the different theories of ethically right and wrong are. As the decades have gone by, there has not been considerable convergence, and it is an open question why that is (Chalmers, 2015). In the same way physicists initially developed several different theories aimed at accurately describing the fundamental nature of light, ethicists have developed a rather long list of competing theories that all are aimed at providing an accurate account of the underlying nature of right and wrong action. The most famous examples of such theories are, perhaps, Kant's moral theory and Bentham's hedonistic utilitarianism, though there are many other theories and variations.

Also in natural science, it is commonplace that there, for a period of time, is disagreement on which account of some phenomenon we are to believe (1st order disagreement). However, in the history of natural science, these situations are typically eventually resolved. What seems to happen in these fields is that the scientific community, to an increasing extent, agree in their evaluative judgements of the competing theories, judging one to have fewer weaknesses than all others.

I start by making the case that a crucial reason for why this happens repeatedly in natural science, while it does not happen in moral theory, is because one in natural science have a broad (2nd order) agreement about how to resolve these 1st order disagreements, while in moral theory, there is (2nd order) disagreement about how to resolve them. More precisely, these natural scientists, implicitly, largely agree on a method for judging whether a theory is good, and better than its competitors, while ethicists, implicitly, have a much higher degree of disagreement on this. I argue that without such 2nd order agreement, 1st order agreement on what moral theory might be practically impossible to reach.

I then move on to argue two things: First, that we have initial (pre-empirical) reason to suspect that differences in theory evaluation between ethicists often come down to disagreements about criteria or disagreements about data (including disagreements about emphasis), and second, that when we look at cases of normative ethicists evaluating moral theories, we do indeed find that their use of criteria, their selection of data, or both, differ considerably from one another. With regard to the former argument, I argue that 2nd order disagreement on the evaluation of moral theories is best seen as largely being disagreements about criteria and disagreements about data. In this discussion, I build on and reframe conceptions of certain criteria (or theoretical virtues), most importantly the accuracy criterion, as described by Kuhn (1977) and by Schindler (2018), and argue how they should be understood in the context of moral theory. I also build on and reframe the conception of philosophical data of Bengson et al. (2022). With regard to the latter argument, I look at four different cases of ethicist implicitly or explicitly proposing which criteria we should put emphasis on when evaluating moral theories, or which data we should take to be central. I conclude that we have good reason to think that a main reason for the lack of convergence on moral theory is due to ethicists evaluating theories based on different emphasis on different criteria and based on different selections of data.

Bengson, J., Cuneo, T., & Shafer-Landau, R. (2022). *Philosophical Methodology: From Data to Theory*. Oxford University Press. https://doi.org/10.1093/oso/9780192862464.001.0001

Chalmers, D. J. (2015). Why Isn't There More Progress in Philosophy? *Philosophy*, 90(1), 3-31.

Kuhn, T. S. (1977). Objectivity, Value Judgment, and Theory Choice. In *The Essential Tension:* Selected Studies in Scientific Tradition and Change (pp. 258-275). The University of Chicago Press.

Schindler, S. (2018). *Theoretical Virtues in Science: Uncovering Reality through Theory*. Cambridge University Press. https://doi.org/DOI: 10.1017/9781108381352

The Role of Simplicity in Metaphysics

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There has been a great deal of debate regarding what methodology we should employ when we are doing metaphysics. One idea is that we should employ some of the same criteria of theory choice we employ in other theoretical contexts, such as science or everyday life. Arguably one such criterion is simplicity. For example, we search for the simplest fundamental physical laws capable of accounting for our observations; we search for the simplest account of the origin of life compatible with everything else we know about the world (e.g., we might prefer a single event of abiogenesis in Earth's history rather multiple such events, if this is compatible with what else we know about the world); we search for the simplest account of someone's death compatible with what else we know about the world (e.g., we postulate a single murderer rather than a large conspiracy of murderers, if this is compatible with what else we know about the world). Some metaphysicians have thought that we can employ a simplicity criterion in metaphysics as well.

In this presentation I will describe some uses to which simplicity has been put in metaphysics, including cases which are such that a simplicity criterion would, it seems to me, unambiguously support one metaphysical hypothesis over its rivals. I will also address some objections which have been made to the use of simplicity as a criterion of theory choice in metaphysics, and I argue that these objections are unsuccessful. Finally, I will present a new and surprising application of the criterion of simplicity within metaphysics. I will argue that considerations regarding simplicity may shed some light on why there is something rather than nothing.

High-level Causation and Causal Inference

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Experimental methods for causal inference (e.g. randomized controlled trials) are believed to conclusively identify causal relations in virtue of realizing "ideal conditions" (Woodward, 2003, 2022) that must be in place to confidently conclude that a change in one variable (a "cause") directly leads to a change in another variable (an "effect"). In particular, they should avoid confounding, namely the existence of a third, unmeasured factor influencing the supposed effect along a path not depending on the supposed cause. This would create a misleading association, making it seem like the cause influences the effect, when in reality, the confounder is responsible. Example: Imagine a study testing if a new drug (X) reduces blood pressure (Y). An ideal condition would be that the only difference between the group receiving the drug and the group receiving a placebo is the drug itself. No other factors (e.g., diet, age, other medications) should systematically differ between the groups. Now, if patients in the treatment group happen to exercise more than the placebo group, exercise becomes a confounder. The observed reduction in blood pressure might be due to the drug or the increased exercise, or both. Satisfaction of ideal conditions is meant to rule out such scenarios and thereby render the interpretation of the experiment's results unambiguous.

Here, we observe that many high-level "aggregate" variables can create a problem for causal inference, due to the heterogeneous causal roles of their components (Spirtes and Scheines, 2004). To explain, such variables represent a combination of several underlying components, which may themselves have distinct causal effects. Example: Total cholesterol is an aggregate of "good" cholesterol and "bad" cholesterol, which have opposite effects on, say, heart disease. We argue that, when heterogeneity is present—as in the cholesterol case—and when data on individual units are unavailable—namely, the ratio of good to bad cholesterol is unknown—, experiments provide a much weaker inferential leverage. The reason is that the ideal conditions on which a conclusive inference would depend are in principle unrealizable. Contrary to the case of variables with homogeneous causal roles, the evidence may not conclusively validate an experiment because confounding may never be ruled out.

Granting that causal inference may be warranted in such contexts, the problem arises of how exactly it should be justified. We propose a rationalization based on a form of abductive reasoning, namely a form of reasoning where one infers the truth of a hypothesis because it provides the best explanation of the evidence, even though there exists no conclusive evidence in support of the truth of that explanation vis-à-vis empirically equivalent alternatives.

- Spirtes, P. and Scheines, R. (2004). Causal inference of ambiguous manipulations. *Philosophy of Science*, 71(5):833–45.
- Woodward, J. (2003). *Making things happen. A theory of causal explanation*. New York: Oxford University Press.
- Woodward, J. (2022). Modeling interventions in multi-level causal systems: supervenience, exclusion and underdetermination. *European Journal for Philosophy of Science*, 59(12): 1–34.

Method and creativity: Toward AI tools for constructively divergent thinking

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Philosophical (and scientific) method arguably involves, at least in part, the generation of thoughts: thinking. Following Margaret Boden's tri-partite analysis of creative ideas, thinking can be merely combinational (re-using existing concepts), exploratory (involving the conservative construction of new concepts), or transformative (involving the radical construction of new concepts). Conservative constructions add new concepts that are logical combinations of already possessed concepts. Radical constructions go beyond this, relying on embodied perception, action and learning to confer on the thinker new concepts that are not mere logical constructions out of previously possessed concepts. Arguably, the greatest philosophical and scientific advances involve transformative thinking. Yet most designs for AI assistants for science and philosophy focus on assisting combinational or exploratory thinking, if they focus on assisting thinking at all. What might AI tools for enabling transformative thinking look like? I sketch an answer: generative cooperative networks. I close by suggesting that *divergence* may be as much a crucial part of philosophical and scientific method as is *convergence*.

Abduction: The Glory and Scandal of Philosophy?

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C.D. Broad referred to inductive reasoning as "the glory of science and the scandal of philosophy". Broad's point was that while scientists frequently use inductive reasoning, philosophers have not yet provided any convincing justification for this practice. I suggest that an analogous claim is true of abductive reasoning in philosophy: while we philosophers frequently use abductive reasoning, usually in the form of Inference to the Best Explanation, we have not yet provided any convincing justification for this practice. I focus on three problems that arise for abductive reasoning in philosophy: (i) all the explanatory theories that are available may be false; (ii) there may be multiple rival explanations that are nearly as plausible as the best one; and (iii) the evidence from which one is inferring may itself be uncertain. In response to these problems, I argue that we should reconceive of the structure of abductive reasoning in philosophy so that, in most cases, it licenses a substantially more modest type of conclusion than it has previously been thought to do.

Two Types of Naturalism in Metaphysics of Science

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Metaphysics of science is a subfield of philosophy that seeks to answer metaphysical questions questions about what the world is like—in a way that is informed by our best science. But informed how, exactly? In this talk, I will spell out two important ways in which we might make the relationship between metaphysics and science more precise. More specifically, I will spell out two different types of *naturalism* to which a metaphysician might subscribe—*content naturalism* and *methodological naturalism*. According to content naturalism, metaphysicians ought not endorse theories that conflict with the content of our best science. According to methodological naturalism, metaphysicians should, whenever possible, make use of the methodology of science.

Although these two types of naturalism may at first appear wholly distinct, I argue that they are in fact importantly related. If we did not think that the methodology of science was a good guide to metaphysical theories, then we would have no reason to be content naturalists. Therefore, one should not be a content naturalist unless one is also a methodological naturalist. Once this relationship is appreciated, it has implications not just for how we tackle particular metaphysical debates but also for how we think about the scope of metaphysics of science in general.

How to be an optimist about philosophical progress

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What reasons, if any, do we have for supposing that the time and effort invested by today's philosophers will result in the discipline of philosophy making progress? And how much progress, if any, should we expect philosophy to make in the future? When thinking about these questions, it may seem reasonable to suppose that whatever is true of philosophy's past will also be true of philosophy's future. Stoljar (2017), for instance, argues that philosophy has made a reasonable amount of progress in the past, and that we *therefore* should expect philosophy to make a reasonable amount of progress in the future. In this paper, I argue that things are not so straightforward. In order for this to be a cogent inductive inference, making progress in the future cannot be significantly easier or significantly harder than it has been until now. There are, however, several reasons to resist this `uniformity of philosophy' assumption. Focusing primarily on optimistic views of philosophy, *in the future*, will be a discipline that makes progress.

Stoljar, D. (2017) *Philosophical progress: In defence of a reasonable optimism*. Oxford University Press.

When fiction leads to truth: the status of derivations in axiomatic systems

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It is now well-recognised that models play an important role within scientific methodology, and it has been suggested that philosophy may similarly be engaged in model building (Williamson 2017). This raises the question of whether model-building plays any role within logic, a research area that overlaps philosophy, mathematics, and computer science. This talk focuses on one area of logic, proof theory, and whether proof systems can be fruitfully understood as scientific models, that is, as representations of various target phenomena obtained through a process of abstraction, distortion and fictionalisation, which are differentially well-suited to fulfilling different theoretical and pedagogical purposes.

As a case study, we focus specifically on the role and status of derivations within axiomatic systems when these systems are used to model bodies of truths within a certain domain, such as geometry or arithmetic. We argue that in these cases, while the axioms and theorems within the derivations are not fictions, the derivations themselves are fictional features of the model. To make our point, we distinguish first between the use of a proof system to model reasoning about a domain, as opposed to modeling the corresponding bodies of truths. When modelling reasoning, derivations can be understood as representing discrete, albeit highly distorted, steps of reasoning. In contrast, when modelling bodies of truths, derivations play a completely different role. To illustrate this, we discuss ontological-metaphysical and epistemological uses of axiomatic proof systems within the sciences, and elaborate on the role of derivations within the Euclidean programme, namely to transfer an alethic or epistemic status from the axioms to the theorem (Paseau & Wrigley 2024).

Finally, to highlight the affinity with the use of fictions within scientific models, we develop an analogy between axiomatic systems and Bohr's model of the hydrogen atom. We show that Bokulich's (2011) argument for understanding certain features of Bohr's model as useful fictions for predictive purposes also applies to derivations in axiomatic proof systems when applied to model bodies of truth. Such derivations constitute a convenient fiction, providing a narrative or "computational path" from the axioms to the theorems constructed through the inference rules, and thus an important theoretical mechanism to guarantee theoremhood.

Bokulich, Alisa (2011). How scientific models can explain. Synthese 180 (1):33-45.

Paseau, A. C. & Wrigley, Wesley (2024). The Euclidean Programme. Cambridge, UK: Cambridge University Press.

Williamson, Timothy (2017). Model-Building in Philosophy. In Russell Blackford & Damien Broderick, Philosophy's Future. Hoboken: Wiley. pp. 159–171.

Pragmatic Cosmopolitanism Through Transparadigmatic Reconceptualization

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A familiar story about progress in philosophy and science imagines concepts and conceptual systems in Darwinian competition to most agreeably sort the data of experience. Those conceptual tools most capable of fulfilling their functions survive, while those that lack adequate simplicity, coherence, or efficacy perish, possibly dragging down institutions and societies with them. In the interest of prescribing a theoretical model for deriving potentially vital benefit from alien systems of thought, this paper first recounts an extremely influential yet seldom recognized articulation of this account of philosophical and scientific development before addressing several high-profile criticisms and recommending a number of enhancements drawn from the field of conceptual engineering.

"The Method of Philosophy" is the running head of the first chapter of a text likely familiar to Carnap and many Harvard graduates of the twentieth century including Quine, Goodman, Sellars, Putnam, Davidson, Kripke, and Chisholm. Framing the pursuit of knowledge in now-common terms, the so-called Kantian pragmatist C. I. Lewis in his 1929 *Mind and the World Order (MWO)* drew together elements from empiricism, idealism, pragmatism, and elsewhere into a theory of knowledge that he termed conceptual pragmatism and disseminated throughout his lengthy tenure. Occasionally supplemented by material from other parts of *MWO* and Lewis's other writings, the first half of this paper reintroduces this first chapter, which officially bears the title "Introduction: About Philosophy in General and Metaphysics in Particular. The Proper Method of Philosophy."

After briefly accounting for Quine's criticism of the analytic-synthetic distinction, Sellars's denunciation of the myth of the given, and additional charges of foundationalism, I build out Lewis's framework for a project that follows Diogenes of Sinope in advocating sharing across paradigms. For pragmatic ends of survival if no other, the theoretical model developed in this final part of the paper recommends identifying the function of a concept in current use and then contemplating whether it could more preferably perform that function were it slightly altered under the influence of an external school of thought. Of course, human flourishing enlists conceptual resources for objectives vastly exceeding scientific explanation and prediction, so in the name of progress and pragmatic cosmopolitanism, these aims too could conceivably benefit from transparadigmatic reconceptualization, or so this paper argues.

Philosophy and Neuroscience: a Methodological Analysis

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The central goal of this lecture is to identify and discuss the main responses to the methodological problem that arises when attempting to establish a meaningful relationship between the methodologies of neuroscience and philosophy. Traditionally, philosophical inquiry has been characterized as an a priori discipline, dealing with conceptual analysis, logical reasoning, and theoretical speculation, while neuroscience is typically viewed as an a posteriori empirical science, grounded in experimental data and observation. This apparent opposition has led to an ongoing debate regarding how, or even whether, these two fields can meaningfully interact. Following this tension, we will critically explore four key approaches that aim to address this methodological challenge:

- (1) The Isolationist Approach, which denies the existence of a methodological problem by treating philosophy and neuroscience as entirely separate disciplines with no need for integration, maintaining that philosophy operates in a conceptual space independent of empirical findings, and thus neuroscience cannot contribute to resolving philosophical questions.
- (2) The Reductionist Approach, which argues that philosophical inquiry should ultimately be reduced to neuroscientific explanations; traditionally philosophical questions about the mind, consciousness, and cognition can (and should!) be addressed using neuroscientific methods, eliminating the need for distinct philosophical analysis.
- (3) The Neurophenomenological Approach, which emphasizes the importance of first-person experience and embodiment in understanding the conscious mind, arguing that neuroscience alone cannot fully capture the richness of subjective experience and that phenomenology must be incorporated into scientific models of consciousness.
- (4) The Non-Reductive Neurophilosophical Approach, which advocates for a methodological pluralism that acknowledges the epistemic value of both philosophy and neuroscience, rejecting (3) while still maintaining that neuroscience and philosophy can complement each other via dynamic interplay where philosophical insights inform neuroscientific research, and empirical findings refine philosophical theories.

We will conclude that (4) offers a nuanced framework for integrating neuroscience and philosophy without erasing the methodological distinctions that make each field valuable, promoting a more integrative and interdisciplinary understanding of the mind. To close the lecture, we will also show some Experimental Philosophy data (original survey) about these questions: specifically, what experts in Philosophy and Neuroscience think the relationship between the two disciplines ought to be structured.

Gouveia, S. (2022) *Philosophy and Neuroscience: a Methodological Analysis*, Palgrave Macmillan. Gouveia, S. (in progress) "An Experimental Philosophy Study on the Relationship between Philosophy and Neuroscience".

Philosophy as World View Study

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The concept of progress is inherently relative to the aim being pursued. The progress of philosophy as a discipline is dependent upon its own epistemic aim. This aim, in turn, is determined by the object of study, given that the aim is an epistemic achievement of an object. The question therefore arises: what constitutes the object of study in philosophy?

I propose that, as a collective research activity, the object of study in philosophy is the *world whole*. This proposition draws upon the philosophical tenets espoused by two leading neo-Kantian philosophers of the Southwestern school, Wilhelm Windelband (1848–1915) and his student Heinrich Rickert (1863–1936). According to Rickert, the world whole (*Weltganze*) comprises reality (*Wirklichkeit*) and values (*Werte*). Reality, in this context, covers both physical and psychological entities that are causally interconnected. The crux of the philosophical inquiry lies in elucidating the relationship between realities and values.

The world whole, I suggest, consists of that which is and that which is not, yet is significant or at least appears to a human being. Indeed, the position of the human being is part of the world whole, significant to us human beings. I use the concept of significance to cover meanings in the broad sense, including linguistic meaning, values, validity and normative matters. I do not take a position on where the boundary between being and non-existing but significant lies. Plausibly, some of what is significant is part of being. The relationship between significant things and being is a central philosophical problem that a metaphilosophical proposal like this should not attempt to resolve. Nevertheless, it is evident that what is significant is part of the object of study in philosophy, as reflected, for example, in the centrality of ethical questions in philosophy.

A philosophical theory or view of the world whole is a worldview (*Weltanschauung*) that the philosophical community tries to devise. This was also the position of Windelband and Rickert, who criticised the philosopher of life Wilhelm Dilthey (1833–1911) for his view that philosophy is the *expression* of a human being's worldview. My suggestion is that the worldview is ultimately *constructed* by the scientific community of philosophers working together in accordance with a scientific division of labour, piece by piece, using scientific methods and in co-operation with special scientists. For a single philosopher, the world whole is far too vast an object of study. Philosophy is therefore characterised by this worldview nature, and as expected, it has thus far produced several philosophical world views over the millennia.

My proposal gives philosophy a distinctive character. Philosophy is distinct from the special sciences, which always study a restricted part of the world whole. Biology, for example, studies living beings. But even when these special sciences are considered collectively, they cannot study the world whole that goes beyond their joined scope, solely because of the normative issues. Only philosophy can consider the world whole. Windelband's and Rickert's conceptions of philosophy were indeed a response to the crisis of legitimacy of philosophy in the 19th century, when the special sciences seemed to exhaust philosophy of its subject matter. It is still imperative to address this situation at a time when the development of the special sciences has reached a much more advanced stage than it was in the 19th century.

Philosophy is Better When It's Diverse

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Feminist (standpoint theoretic) philosophy of science suggests that science is better when it's more diverse. Theorists like Sandra Harding (1991), Helen Longino (1990; 2002), and Lynn Nelson (1990) argue that objectivity is a feature of scientific communities rather than individual scientists. While individuals may inevitably carry biases, a scientific community can achieve greater objectivity if it's structured to identify and correct these biases. As Peter Godfrey-Smith (2008) writes – citing the likes of Thomas Kuhn (1970), David Hull (1988), Philip Kitcher (1993), and Michael Strevens (2003) – "a community or population can embody epistemic properties that no individual has" (p. 142).

How to get a scientific community to achieve objectivity? Philip Kitcher (2011) says that "science is well-ordered when its specification of the problems to be pursued would be endorsed by an ideal conversation, *embodying all human points of view*, under conditions of mutual engagement" (p. 106, emphasis added). Similarly, Paul Feyerabend (1975) emphasizes that paradigmatic theories can limit creativity. To achieve strong objectivity, says Sandra Harding (1992; 2015), voices outside of the traditional academic community need to be heard.

Empirical studies seem to confirm that science is better when it's more diverse. The European Commission (2012) and National Institutes of Health (see Valantine & Collins 2015) both assert that diversity will provide science with an 'innovation dividend', opening the door to new discoveries (Nielsen et al. 2017). There's evidence that greater gender diversity improves collective problem solving (Woolley et al. 2010; 2015) because women exhibit higher levels of social perceptiveness and improved equality in participation. This is corroborated by another study which also found that gender diversity results in a more effective use of the expertise of individual team members (Joshi 2014).

I argue that this supports the view that diverse philosophy is better too. While philosophers don't often work with empirical evidence (although experimental philosophers do), they do work with *theoretical* evidence. In fact, it's in the context of applied ethics (Gaus 2005) and political theory (van der Vossen 2015) that philosophers have expressed the greatest concerns about ideological bias, precisely because the lack of empirical evidence makes it difficult to stop the construction of grand narratives. This means that philosophy, like science, needs diversity to ensure a balanced representation of values which, in turn, will help philosophy to converge on truth. Similarly, qualities conducive to good science that result from diversity, such as social perceptiveness and parity in conversational turn-taking, are also beneficial to philosophy insofar as the improved collective problem solving that results from them is just as beneficial, if not more so, to philosophy as it is to science. While there are key differences between science and philosophy, I argue that, insofar as both science and philosophy benefit from an increase in collective problem solving and a decrease in ideological bias, the literature supporting diverse science also supports the view that philosophy is better when it's diverse.

Convergence Towards the Truth about Truth: A Case Study

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Scientific progress is often described as convergence towards the truth about phenomena and ultimately about the world. *First step*: discover ways one *can* understand phenomena, i.e. *theories* about P_1 , P_2 , ..., P_N . Second step: decide which theories T_1 , T_2 , ..., T_N are true (or most truthlike). Empirical science discovers theories about phenomena and is popularly believed to converge *towards* the truth about them. Philosophy discovers multiple ways to understand the world—there is value in that alone—but many doubt philosophy can decide which of them are true.

I remain optimistic that philosophy can converge towards the truth—I pursue truth in my research—although it is unclear how best to proceed. I will present my analysis of the dispute about truth (Ingthorsson 2019) as an example of how one might try to settle which of many philosophical theories T_1 , T_2 , ..., T_N about P is the best. My approach resembles what Schurz calls *Inductive Metaphysics*, what Norton calls *Large Scale Inductive Inference*, what Styrman calls *Economical Unification*, and what Dellsén and Firing call *Enabling Noeticism*. I take a holistic big picture approach to the subject, apply a form of inference to the best explanation rather than aiming for deductively valid proofs. Also, I aim to identify implicit ontological commitments and background assumptions that may explain why different thinkers favour different theories, appeal to different data and value arguments differently. This provides a basis to determine the internal validity of the various approaches; about what can they reasonably profess to make valid claims.

My conclusion is that proponents of different theories of truth do not agree about the unit of analysis; they are not different theories about the same thing but about different things: (i) the function of the truth predicate, (ii) valid reasons for believing that something is true, (iii) the content of a concept and (iv) a phenomenon in the world. This result is not progress towards truth about phenomena, but about the current state of the dispute about truth. However, it changes the prospects for evaluating the truth of the theories. Only the correspondence theory identifies truth with a phenomenon *P*. Epistemic theories become vacuous when identifying truth with justification rather than P. Deflationism and pluralism say nothing that has any implications about *P* or how we know about *P*; they say something about a different phenomenon P_2 , the use of the truth predicate in natural languages. Ergo, alternatives to correspondence should only appear plausible if you already believe that being true is a function of the way we speak or justify belief. A more plausible view is that the different theories are not rival views but complementary theories about what truth is, how we talk and think about it, and how we justify our beliefs about what is true and false, in which case they are perfectly compatible with each other. I have come across similar ambiguities about the unit of analysis in every philosophical issue I have so far investigated, which leads me to suspect the problem is systemic, that it partly explains the lack of consensus in many philosophical issues, and therefore is a consideration every theory about philosophical methodology must take into account.

Ingthorsson, R.D. (2019). 'There's No Truth-Theory Like the Correspondence Theory', *Discusiones Filosoficas* 20(34): 15–41.

Epistemic solidarity and the role of experts and nonexperts in the elaboration of public policies: A Philosophical-political approach

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Solidarity notably represents an ideal that can be critically addressed along an extremely wide variety of disciplinary and methodological perspectives. While, in the last three decades, wide profusion of studies on the matter has revolved respectively around its sociological, psychological, economical and juridical dimensions, a less explored aspect has been the possibility of a distinctively philosophic-political foundation for that concept, i.e. one not immediately reducible to empirical findings.

This paper has two main goals. In the first section I shall attempt to work out a conceptualization of solidarity in terms of a "joint-action" buttressed by a shared sense of belonging to the same partnership experienced by the involved subjects. In the second section of the paper, I shall build on existing notions of "epistemic solidarity", i.e. a concept which, in social theory, generally refers to the shared commitment among individuals or groups to trust, support, and validate each other's knowledge and perspectives.

This attitude, if implemented at an institutional level in liberal democracies, would admit the possibility of integrating the contribution of non-competent people in the elaboration of public policies. I shall take issue with the philosophical-political reconstruction of epistemic solidarity elaborated by Goodin and Spiekermann, who consider epistemic solidarity as an attitude that might inspire "bottom-up" initiatives and incite multitudes to fight for integration and prevent the risk of public policies established by elites.

I will propose that epistemic solidarity could also be adopted as a "top-down" undertaking by the representatives of democratic institutions, and justify the integration of non-experts in the elaboration of solutions to specific problems (especially those affected by the problems at hand). By correcting forms of epistemic injustice, solidarity could offer a more promising approach on issues of democratic legitimacy, not only in relation to the idea of "epistemic democracy" (which sees the value of democracy as primarily based on its ability to make good or correct decisions), but also and in relation to the idea of a "procedural" democracy, which primarily assesses the correctness of methods of democratic deliberation in terms of inclusivity and equal respect.

Goodin, Robert E. and Spiekermann, Kai (2015). "Epistemic solidarity as a political strategy". *Episteme* 12(4), pp. 1–44.

Implications of Nina Emery's Naturalist Metaphysics

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The aim of my presentation is to discuss the significant consequences—both for physics and philosophy of science—implied by an ostensibly innocuous suggestion by Nina Emery in her recent book Naturalism Beyond the Limits of Science (2023). The main argument of the book is to demonstrate that if one subscribes to content naturalism in metaphysics, one should also adopt methodological naturalism (Emery 2023, 10).

- Content naturalism: We should not accept metaphysical theories that conflict with the content of our best scientific theories.
- Methodological naturalism: Metaphysicians should, whenever possible, use the same methodology as scientists.

Since the methodological setting is theory choice, the issues are confined to the criteria for selecting theories. In addition to the standard criteria, Emery proposes the principle of minimal divergence (PMD): "Insofar as you have two or more candidate theories, all of which are empirically and explanatorily adequate, you ought to choose the theory that diverges least from the manifest image" (Emery 2023, 131). PMD is presented as an explanation for why scientists reject certain metaphysical hypotheses, such as Descartes' evil demon, solipsist idealism, or the brain in the vat. Emery 2017 suggests that wave-function realism, which is an interpretation of quantum mechanics, violates PMD.

Since much theorizing in quantum mechanics and relativity theory conflicts with common sense, one is faced with a choice: either reject physical theories and their interpretations that violate PMD and seek out theorizing that conforms to PMD, or reject PMD and accept the prevailing physical theories and their interpretations disregarding whether they adhere to PMD. Here the choice remains basically an ethical one.

I will offer two arguments in support of expanding the naturalist methodological framework to include theory generation and justification. Metaphysics is embedded at every stage of our thinking and acting. Rather than classifying PMD as an extra-empirical criterion for theory choice (as in Emery 2023, 138), this suggests that the naturalist should transcend empiricist epistemology and incorporate the manifest image into the sources of metaphysical knowledge, alongside scientific observations and theorizing. This conforms to inductive metaphysics, where experiential facts such as everyday experience, folk explanations, and certain kinds of semantic intuitions, that are not the subject any empirical science, lay claim to objectivity and are metaphysically relevant (Engelhard 2021, p. 6).

To illustrate the potential of common sense thinking in metaphysics, I will analyze Aristotle's argument for the potentiality-actuality distinction in Metaphysics IX 3. My llustrations from science are from the particle-wave problematics and the Dynamic Universe Theory (Suntola 2018a, 2018b, 2020, 2021, 2022, 2025).

Survey of ontological proofs as a catalyst for AI and proof theory

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Gödel's ontological proof is an axiomatization of Anselm of Canterbury's ontological proof of the necessary existence of God in a higher-order modal logic. The notes of Gödel's proof comprise two pages of formal axioms, definitions, and theorems in an implicitly defined system for higher-order modal logic (HOML). However, pinpointing the exact formal properties of the intended logical calculus has proven to be a complex endeavor and has led to a vivid academic debate on problems appearing in the formalization. One typical example is the modal collapse that follows from the axioms in multiple versions of the proof [3, 4]. The consensus is that a general modal collapse (i.e. that $\Box A \leftrightarrow \Diamond A \leftrightarrow A$ is derivable for arbitrary sentences) reduces the interest in the axiomatization and is unlikely to be intended by Gödel [2]. Although speculation of the contrary has been raised [5].

In fact, multiple debates of this kind have flared, though the Anderson-Hàjek controversy stands out as conclusively settled through the assistance of an AI analysis that tested the claims [1]. The redundancy of certain axioms in Anderson's variant of the ontological proof was proven and thereby settled the case in favor of Hàjek. Noteworthy, is that the solving of the matter was partly attributed to AI, and the solution was described as a computer-assisted analysis. However, the question of redundancy of axioms can be constructively settled by a presentation of a proof that avoids using the axioms in question. Obtaining such a result can arguably be accomplished by an experienced researcher. The result itself does not require AI, but the chosen method of philosophical investigation is to incorporate the use of theorem provers and model checkers. The use of the ontological proof as a test case to demonstrate the ability of the purposely developed AI is argued to increase both reliability through verification and exactness through a uniform procedure for producing evidence.

Computer-assisted philosophy is a modern way to approach formalistic points of view, though not necessarily a call for logicism (the doctrine that mathematics is a part of deductive logic). The ontological proof has paved the way for automation and has given precision to higher-order notions such as comprehension. Although the work on the ontological proof has served as a catalyst for AI, the opposite direction is also true. Both aspects of reasoning, computer-assistance and the pen-and-paper approach, lead to fruitful results and the whole is more than its parts.

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 Publisher: Frankfurt etc.: Ontos, Editors: M. Szatkowski, pp. 323–343.
- [3] Sobel, J. H. (1987). Gödel's Ontological Proof. In: edited by J. J. Thompson. On being and saying: essays for Richard Cartwright, MIT Press.
- [4] Sobel, J. H. (2001). Logic and Theism: Arguments for and against Beliefs in God, Cambridge University Press.
- [5] Sobel, J. H. (2006). On Gödel's ontological proof, In: edited by H. Lagerund et al., (eds.), Modality matters: Twenty-five essays in honour of Krister Segerberg, Uppsala Philosophical Studies.

Aesthetics - philosophical and empirical

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Academic inquiry can be divided into theoretical and empirical. This is so in aesthetics, too, although it has traditionally been understood as conceptual rather than quantitative research.

Philosophical aestheticians study aesthetic experience, aesthetic judgment, and aesthetic value with traditional philosophical methodology. The scholars do not engage in laboratory work, make surveys, or rely on mathematical models. Instead, avoiding fallacies in argumentation, they aim at posing better and more precise questions about their object of study.

Empirical aestheticians, in turn, study aesthetic experience, aesthetic judgment, and aesthetic value with quantitative methods from neuroscience, cognitive science, and psychology. The field has been differentiating from philosophical aesthetics since the 19th century, and even more so in the 21st. As a result, philosophical and empirical aesthetics are being taught and studied in different universities, they have different publication forums, and organize separate conferences. Despite seemingly sharing an object of study, researchers rarely communicate with each other. Likewise, research that could be placed in the middle of the philosophical-empirical continuum in aesthetics is very uncommon.

I ask whether philosophical and empirical aestheticians truly study the same phenomena, or whether we are dealing with two completely different and irreconcilable usages of the same concepts. So, can the results from philosophical and empirical aesthetics be woven into the same narrative, or not? I approach this question from methodological, ontological, and epistemological viewpoints characterized by common worries that have been raised about cross-disciplinary research in general: First, I investigate whether the divide into philosophical and empirical aesthetics is justified in that empirical methods reveal facts instead of questions. Second, I look into whether the divide is justified in that combining philosophical and empirical aesthetics would lead to epistemic dominance of the empirical side and simultaneous conceptual wilting. Last, I explore the notion that high-quality integrative research requires knowing one area well, which is away from knowing the other, and thus, producing novel integrated results is extremely difficult.

Analysing concepts in philosophy of science: a defence of methodological pluralism

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Today, we philosophers of science do not talk much about what it is that we do when we analyse concepts. In a broad sense of analysing, we however analyse concepts all the time. Sometimes we engage scientists in discussions about concepts. For instance, the concept of disease in medicine, or the concept of species in biology interest both scientists and philosophers of science. Then again, some concepts central to philosophy of science are more typically used by philosophers than by scientists, and discussions concerning them tend to extend into other areas of philosophy rather than the sciences. Examples include causation, kind, and objectivity.

In all such discussions revolving around individual concepts, it is often necessary to analyse the concept in some way. And we do analyse concepts, using many different methodological approaches: Carnapian explication, conceptual engineering or ameliorative analysis, historical and genealogical analysis, and the naturalised approach to conceptual analysis advanced in experimental philosophy – just to name a few available approaches.

Current metaphilosophical discussion about the analysis of concepts happens largely outside of philosophy of science, and it tends to be programmatic: it articulates and defends distinct approaches, often starting from some theory of the nature of concepts. There is practically no methodological discussion that would attempt to cover all the approaches to the analysis of concepts that are in use in philosophy of science today.

The lack of methodological discussion about the analysis of concepts in philosophy of science leads to misunderstandings; to missing connections between discussions that would benefit from being connected; and likely to suboptimal methodological choices, as philosophers of science are not aware of all the available possibilities when they face the need to analyse some concept.

No programmatic defence of any of the many methodological approaches available will solve these problems. I argue that the different methodological approaches to the analysis of concepts relate to different research questions in philosophy of science. I therefore defend a pluralistic understanding of the methods used in the analysis of concepts in contemporary philosophy of science.

Should philosophers rely on the epistemic authority of the principle of relativity?

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As far as we know there are no papers criticizing mathematical theories such as the number theory, theory of graphs, theory of groups, theory of matrices, theory of approximation, etc. In physics, there is very little criticism of Maxwell's electrodynamics or classical mechanics, and the main challenge of quantum mechanics is that it lacks an ontological interpretation. There is no overwhelming criticism against standard fundamental theories in chemistry, biology, and geology either.

The special theory of relativity (STR) is very different from the above-mentioned theories. SR has given lots of correct results in a static frame, like the particle accelerator or laboratory, where the observer is at the state of rest. But elsewhere, since its birth, STR has received continuous criticism, and it has failed to answer these criticisms, and currently there exists hundreds of papers criticizing it. Yet, the criticism seems to have little or no effect on supporters of STR. For instance, philosopher's faith in STR seems to be unshakeable. In our survey lecture, we present several critical notes showing the main problems with STR to illustrate that philosophers should not rely on the epistemic authority of STR.

First of all, we explain why the term "observer" in STR is confusing [2, p. 24]. Then we present three examples (system of galaxies, cosmic microwave background, intergalactic dust and gas) illustrating that the famous principle of relativity does not hold in the real physical universe [1, p. 13]. These systems represent a kind of preferred inertial frames of the universe. In other words, not all inertial systems are equivalent, which contradicts the principle of relativity. Consequently, we should not identify the written form this principle with reality.

We also show why the well-known time dilation and length contraction effects do not hold in a closed universe (see [1, p. 4]) which can be modelled by a three-dimensional sphere [3, p. 87]. Hence, if the phenomenon of time dilation does not exist in the physical universe, then our optimistic plans for traveling to distant exoplanets or even galaxies will be significantly limited. Our criticism also explains why the standard cosmological model, which is based just on the general theory of relativity, has so many problems. For their extensive list we refer to [2, pp. 1–2].

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- [3] Suntola, T. (2018). The Dynamic Universe. Physics Foundation Society, Espoo.

Methodologism and functionalism as progressive philosophies

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My talk is based on a new pragmatist approach to knowing and meaning called methodologism, which is detailed in my forthcoming book, *Doing, Knowing, and Getting it Right: Methodologism as Pragmatism* (Cambridge University Press). Applying the philosophies of Wilfrid Sellars (e.g., 2007), Robert Brandom (e.g., 1994), and Huw Price (e.g., 2011) in particular, methodologism focuses on how our practices produce knowledge and how the use of linguistic expressions creates meaning. Methodologism is both (neo)pragmatist and anti-representational.

The significant issue is that neither knowledge nor meaning is understood representationally. Therefore, the criteria for both must be found in the use conditions, including assertibility conditions. Furthermore, the practice that produces knowledge is rule-bound, whether we are discussing linguistic knowledge, assertions, or non-linguistic knowledge. This entails that there are both correct and incorrect ways of practicing. Indeed, methodologism, the key notion of the book, refers to the etymological meaning of 'method' as a way. It is the stance according to which knowing requires doing correctly within the rules of the community.

The purpose of this talk is first to outline the methodological approach and then to focus on how a particular use theory of meaning, functionalism, can improve our understanding of key philosophical notions. Functionalism here relates primarily to Wilfrid Sellars's writings, although we can also name several other authors in this lineage, such as Michael Williams (2022) and Huw Price (e.g., 2011; Extended ed.). Functionalism instantiates the same principle that I call methodologism: doing, use, or practice as the key determinant of what a phenomenon or an object is. As in the use theories of meaning in general, the meaning of an expression is determined by its use or role in a language, as well as the rules that govern its use. In other words, functionalism examines the roles or functions of our linguistic items.

More specifically, the purpose of the functionalist approach is to study the reasons why we have a particular term, deciphering its function in our practice. This can involve considering what difference it would make if we didn't have this specific term. The pragmatist maxim states that if it makes no practical difference, it can be disregarded for philosophical purposes. I shall illustrate this approach with references to examples, such as the term 'truth,' as they are conceived within the framework of Sellars's functionalist theory of meaning on one hand, and Huw Price's expressivism on the other. The progress comes from acquiring a clearer understanding of why we have terms like these, that is, the kinds of functions that they serve. Another advantage is that this approach is fully naturalist and does not introduce non-natural and other mystical entities, such as meanings independent of use conditions.

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Sellars, W (2007). *In the Space of Reasons. Selected Essays of Wilfrid Sellars.* Edited by K Scharp, and R Brandom. Cambridge MA: Harvard University Press.

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The Varieties of Philosophical Approaches: Analytic, Continental, and Synthetic

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This paper argues that in order for philosophical theorising to play a more effective role in facilitating scientific research, it is helpful to elevate and popularise the status of synthetic philosophy as a distinct philosophical approach. At present, there are two widely acknowledged strands of contemporary philosophy that are often conceived of as separate philosophical traditions associated with different methods, standards, and goals – analytic philosophy and continental philosophy. Humphries (1999) diagnoses the divide as being due to a difference in philosophical style. Levy (2023) suggests the source of incommensurable standards between the analytic and the continental traditions is that the former comprises a Kuhnian (1962) paradigm, whereas the latter does not. As a paradigm, analytic philosophy tends to nudge its practitioners towards working on a relatively narrower set of puzzles defined within the tradition and away from practical questions of wider relevance, becoming 'less and less relevant to the kinds of pressing questions that often drive people to philosophy in the first place' (Levy, 2023: 299). Continental philosophy has its own issues in this regard – for one, it is not really interested in 'abutting, or seeking to ground or support or complement, the world of modern scientific research' (Humphries, 1999: 263), which limits the kind of impact it might have. Various theorists currently view the goals of the discipline differently, but Levy (2023: 303) expresses hope there may be 'a new way of doing philosophy that would combine the strengths of both' strands.

I want to put forward a contender for one such possible 'middle way' vis-à-vis the potential of philosophical work to contribute to empirical projects. It is a tradition of philosophical methodology that is at present institutionally subsumed under analytic philosophy and rarely acknowledged as a separate approach, but arguably should be. Various terms have been used to refer to it with some family resemblance among them. Of these, I will discuss three specific recent formulations, which should be enough to outline its general contours: naturalistic philosophy (Thagard, 2009), synthetic philosophy (Lewens, 2014; Schliesser, 2019; 2024), and philosophy in science (Pradeu et al., 2024), although for pragmatic reasons I opt for 'synthetic philosophy' as the apt unifying label. In brief, the approach I aim to delineate would combine the original affinity of analytic philosophy to the methods and questions of science as well as its focus on clarity with - in some ways - the more daring, wide-ranging, big-picture interdisciplinary spirit of the continental tradition. There is a proud tradition of empirically informed philosophical theorising meant to serve as a contribution towards broader empirical goals, such as William James pushing the sciences of the mind forward. I see high-level empirically oriented systematising as a key role that synthetic philosophers could play in a range of fields, but especially the ones where the science is not yet advanced enough to be able to move forward significantly just by following the course it has laid out so far. I discuss the advantages and disadvantages of advocating for an explicitly distinct term to refer to the seemingly heterogenous ways to practice empirically oriented philosophy, concluding that the former outweigh the latter.

Making Feminist Progress: Autoethnography as "women's" philosophy

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In her 1990 work *Is Women's Philosophy Possible?* Nancy Holland defines "women's philosophy" as philosophical work that "arises from, explicitly refers to, and attempts to account for the experience of women." (1990, p. 1). A "women's" philosophy, distinct from "feminist" philosophy, would depict the lived reality of women's experiences without an explicit or self-conscious desire to construct oppositional theories or arguments.

In this talk, I build on Holland's depiction of a "women's" philosophy and argue i) that a research method known as 'autoethnography' matches the criteria for women's philosophy, and ii) using, citing, and teaching this research method will engender progress in feminist philosophy.

Auto (self) ethnography (theory) is a research approach that centres the lived experience of the researcher and directly challenges the positivist pursuit of a disembodied objectivity. Beginning in the late twentieth century, social scientists scrutinised the assumptions involved in positivist research methodologies and became increasingly sceptical of its potential to facilitate research into marginalised groups. The result of this scepticism and scrutiny was the development of autoethnography: a critical qualitative research approach that centres narratives derived from the researcher's first-person perspective (Ettore, 2017).

A good amount of work in feminist metaphilosophy has focused on the construction of arguments that aim to justify the use of first-personal narratives in philosophy. I use autoethnography to propose a *pragmatic* solution instead. The task at hand should be understood as expanding what is widely perceived to *count* as philosophy not as presenting arguments which theoretically justify the use of unconventional methods. As such, I argue that using, citing and teaching the method of autoethnography is a pragmatic pathway to wide-spread acceptance of first-person narrative in philosophy, and to the construction of a women's philosophy.

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Theoretical Virtues of Scientific Theories in Metaphysical Theorizing

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In response to recent critiques of analytic metaphysics by some philosophers of science, a new argument has been developed by some metaphysicians and metaphysics sympathizers that is structured around the methodological role of the theoretical virtues of scientific theories in metaphysical theorizing. According to this argument, the best reason to believe our successful, mature scientific theories are true is their theoretical virtues such as internal consistency, external consistency, empirical fit, accuracy, simplicity, explanatory power, predictive power, unification, broad scope, etc. If theoretical virtues are signs of truth in science, they should be so in metaphysics as well. Since the same theoretical virtues are invoked in metaphysical theorizing, metaphysical theories can also be true.

Let's call this argument the theoretical virtues argument for metaphysics. To investigate the soundness of this argument, this paper studies the claim that since theoretical virtues are fruitfully and justifiably used in *scientific* theory choice, they can also be applied to *metaphysical* theorizing. I distinguish between two roles that theoretical virtues play in science: the truth-indicative role and the truth-conducive role. I argue that to be truth-indicative, theoretical virtues of a theory must be instantiated collectively and impressively, something that cannot be achieved in metaphysics. Furthermore, I show that while the truth-conducive role of theoretical virtues is, in principle, applicable to metaphysics, only a metaphysics that is deeply associated and intertwined with science can satisfy the conditions for truth-conduciveness of theoretical virtues. This creates an ironic situation for the proponents of the theoretical virtues argument for metaphysics: their argument works only for a deeply naturalized, scientific metaphysics that their opponents are advocating for.

Progress in Philosophy

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Philosophy is literally the oldest of "academic" subjects. This "mother of sciences" was subordinated as the "maiden of theology" in medieval universities, but in modern research universities it gained an important position as an independent scholarly discipline with its own curriculum, journals, societies, and congresses. But still many critics claim that philosophy is merely speculative contemplation of eternally unsolved problems without genuine progress.

When Kant complained in 1787 that metaphysics has not attained "the secure path of science", he clearly had in his mind the cumulative model of the growth of fully certain knowledge. When this model was effectively criticized in the 1960s by Popper and Kuhn, it was replaced by new accounts of scientific progress. In recent debates the four main rivals are: epistemic (Bird, increase of knowledge), functional (Kuhn, Laudan, problem-solving without truth; Rescher, successful pragmatic action), semantic (Popper, Niiniluoto, increase of truthlikeness or verisimilitude), and noetic (Dellsén, increase of understanding). Today there is a lively discussion of the relevance of these accounts to philosophical progress. While skeptics deny that philosophy makes progress (e.g. Dietrich, 2011, Shan, 2022) or achieve it less than science (e.g. Chalmers, 2015), optimists claim that philosophy successfully solves big problems (Stoljar, 2015). Some point out that philosophers grapple with competing theories without acquiring knowledge (Beebee), others claim that disagreement does not preclude progress like science when it puts people in a position to increase their understanding of some phenomenon.

In my inaugural lecture for the chair of Theoretical Philosophy in Helsinki in 1981, I defended the metaphilosophical view that philosophy makes progress by the Socratic method: problematization, explication, and argumentation. The creation of new problems is compatible with the critical possibility that some philosophical questions turn out to be pseudo-problems due to abuse of words. Explication covers new definitions and distinctions of concepts and the formulation of philosophical theses and theories. As questions and arguments do not have truth values, and many philosophical theories are axiological and normative stances rather than factual claims about the world, philosophy does not typically accumulate knowledge. But this not a reason for pessimism: some metaphysical claims about the world are generalizations of the best scientific theories (e.g. indeterminism) or abductive conclusions (e.g. ontological realism); some eternal philosophical problems have received progressive solutions (e.g. Tarski's semantic definition of truth); arguments in favor or against theses may have permanent results (P follows from Q; S is self-contradictory); development of alternative and even radically mistaken views may be progressive (e.g. Berkeley's idealism). Usually, these results give rise to new problems which gives internal continuity to philosophical discussion. Thus, philosophy is largely different from empirical science yet a progressive discipline.

Everettian quantum mechanics and the problem of ontological extravagance

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Since it neither relies on a collapse postulate nor posits a hidden variable, Everettian quantum mechanics (EQM) is an attractive option among realist interpretations of quantum mechanics. In some sense, EQM is a *simpler* theory than its competitors. However, it also appears to require more structure; unlike its competitor theories, EQM has traditionally been taken to entail a multitude of worlds, as every possible outcome of every quantum process is actualized in at least one world. Since no other realist competitor theory shares this feature, the most prominent objection raised against EQM is that of ontological extravagance.

Everettians have given this objection little serious attention, at least in part because the objection from ontological extravagance has not yet been carefully articulated in the literature. To clarify this objection, I distinguish between two types of simplicity criteria: ones concerned with *ontological abundance* and others concerned with *postulate abundance*. Where ontological abundance criteria concern the number of concrete objects that some theory posits, postulate abundance norms instead concern the number and overall complexity of the set of postulates of the theory. Unfortunately, it is unclear how we ought to weigh these simplicity-related metaphysical considerations, and worse, as I argue, there is no independent motivation for either sort. I argue that we ought to instead consider the proximity between the way the theory says the world is, and the way the world appears to be. With the deadlock between Everettians and non-Everettians on what sort of simplicity criterion reigns supreme, this severely overlooked criterion offers a promising route forward in the dialectic.

This alternate criterion roughly corresponds to what Emery (2023) calls the minimal divergence norm, under which we ought to prefer theories that deviate least from the manifest image, or the way the world generally appears to be. However, such a norm requires further specification; there is no image of the world that uniquely picks out *the* manifest image. Observations themselves depend on our theoretical commitments, which vary from agent to agent, and so there are *many* manifest images. To avoid this multiplicity, I argue that we ought to look to the physical sciences for a widely-accepted theory that describes the world as we experience it. Classical mechanics (CM), the predecessor theory to quantum mechanics, does exactly that; though it is certainly not a *correct* description of reality, it is sufficiently accurate for numerous forms of engineering, as it describes macroscopic reality *well enough*. I argue that we ought to treat the way that classical mechanics says the world is as *the* manifest image. Then, the third type of criteria, which I call *classical divergence*, concerns the degree to which the way some theory in question says the world is deviates from the way that CM says the world is. I defend this norm on pragmatic grounds, arguing that adhering to it offers a distinct epistemic advantage.

While EQM does not necessarily tell us that *our* world is vastly different from the way that CM says it is, it is generally taken to entail *many* more worlds than its competitor theories. With this new set of simplicity criteria in place, Everettians can better understand the available dimensions along which they may endeavor to improve their ontology. This new norm that I advocate offers hope: Everettians can seek a less extravagant ontology by strategically minimizing classical divergence.

"How We Think": Naturalizing the Transcendental Method

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The methodology of transcendental philosophy, derived from Kant, is usually considered strictly aprioristic and non-empirical. This paper suggests, however, that a naturalized version of transcendental philosophy can be developed: the necessary conditions for the possibility of (e.g.) cognition and meaning are grounded in our natural, historically contingent practices. A naturalized transcendental philosophy must engage with the contingency of "us", particularly the tension between how we must necessarily think and (alluding to the title of a well-known book by John Dewey) "how we think".

Reframing Peer Review: Bias, Reflexivity, Quality

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Peer review processes are central to academic quality assurance and resource allocation. When broadly conceived, as the engagement of experts in a given domain ("peers") to assess the competence, quality or integrity of scholars or their scholarly works, peer review governs our publications, conferences, book proposals, funding applications, promotion and tenure decisions, and even prize-giving. Its functions are not only epistemic (related to validation and improvement of knowledge and its authors), but also economic (related to allocation of resources) and even socio-political (related to academic self-governance). Yet, as a fundamentally human endeavour, peer review is far from perfectly suited to fulfil these functions.

In this talk I will examine the role of bias in peer review in the context of its social epistemology. Bias, defined as prejudice or distortion, can impact peer review in various ways. "Quality" is notoriously hard to define, even in the quantitative sciences and may be judged via sometimes ill-suited proxies. Rates of error-detection cam vary wildly, while inter-rater reliability amongst reviewers is often low. Attenuation to the current reward system can disfavour null or negative findings or more incremental work. Social biases like sexism, racism, homophily or prestige bias can endanger ideals of universalism. Confirmation bias and conservatism might limit recognition for novelty or interdisciplinary contributions. Evidence regarding such issues is often limited and derives heavily from quantitative traditions (Tennant & Ross-Hellauer, 2020).

Following an overview of these issues, I consider varieties of peer review system related to academic publications. I first note that our language for interrogating peer review is often imported whole-sale from more quantitative subjects (Derrick & Ross-Hellauer, 2024). Through an examination of "reflexivity" as a way of reframing notions regarding bias, I consider the need for epistemic diversity in peer review systems. Considering the epistemic features of research in Humanities and Social Sciences, and via considerations of "anonymisation" and arguments for "opening" peer review, I hence propose pathways to equity, fairness and (above all) quality in peer review.

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Tennant, J. P., & <u>Ross-Hellauer, T.</u> (2020). The limitations to our understanding of peer review. *Research Integrity and Peer Review*, 5(1), 6, doi:10.1186/s41073-020-00092-1

Inductive Metaphysics and its Abductive Methodology

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In this talk the methodology of inductive metaphysics (IM) is explained, as understood in the DFG research group FOR2495, including a discussion of IM's relation to a priori metaphysics. The methodological principles of IM consist of (1) the employment of inductive and in particular abductive methods and (2) making use of empirical sources. Important philosophical challenges for the methodology of IM stem from the highly theoretical and transdisciplinary nature of metaphysical principles and the corresponding difficulty of justifying abductive inferences from empirical knowledge to these principles. Two rationality criteria proposed for these abductive inferences are (a) the unification of many mutually independent empirical facts or laws and (b) the independently testability of metaphysical theories by entailing use-novel empirical consequences. At hand of two case studies it is shown how abduction to metaphysical theories can satisfy these two conditions: (i) the abductive justification of perceptual realism and (ii) the abductive justification of causality.

Research ethics for applied ethics

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Philosophical applied ethics has contributed to many practical fields such as nursing, agriculture and engineering. In this paper we discuss research ethics for applied ethics itself —a topic that has been neglected to a great extent (Beauchamp 2005; Hansson 2019.) In order to address this blind spot, we distinguish the topic into three interrelated issues: choice of topic, selection and use of methods, and use and misuse of results. We will analyse and discuss these issues with the help of the four core ethical principles by the Finnish National Board on Research Integrity, namely reliability, honesty, respect and accountability (TENK 2023, 12).

First, the choice of the topic is a fundamental research ethical question, especially when resources for applied ethics are scarce and the results have a potential to influence public and private decision-making. We ask and consider what philosophers should study and on what grounds. The choices of topic can influence what is seen societally and ethically important (Turner 2009). Should philosophers concentrate on philosophically interesting or on societally central ethical questions? What are the criteria for these from the perspective of research ethics?

Second, we set out to explicate what does researcher's integrity mean in the context of applied ethics. Personal values or normative beliefs shape the answers researchers give to normative questions and truly impartial positions to ethical questions may be impossible in practice (Takala 2005). How should conflicts of interest be addressed in applied ethics? What could objectivity mean in this field? Pre-selected conclusions seem to be common in applied ethics. Often researchers are not merely forming hypothesis but rather seeking ways to support for the views they already hold and that they want to defend. We analyze whether this could be a research ethical problem —especially when the research community is not very diverse.

Third, we will discuss the possibilities and limits of using results of applied ethics from the perspective of research ethics. How should we present our results to the general public, decision-makers and academia? What does responsibility over one's research imply in applied ethics?

Beauchamp, T. L. 2005. What can model professional code for bioethics hope to achieve?. American Journal of Bioethics, 5(5), 42–43.

Hansson, S.O. 2019. Philosophical Plagiarism under the Spotlight. *Theoria* 85, 61–68.

Takala, T. 2005. Demagogous, Firefighters, and Window Dressers: Who Are We and What Should We Be? *Cambridge Quarterly of Healthcare Ethics* 14, 385–88.

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Tools for Thinking — An Overview of Methods of Philosophy

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Philosophy as an academic discipline and even more so as a general intellectual pursuit has a rich and varied methodological landscape. Some of this variation comes from the many differences between the methods preferred by the different schools of philosophy, such as analytical and continental traditions, with their respective emphases on formal precision on the other hand and interpretative depth on the other hand.

In this spirit, this paper offers an overview of the different methodological approaches and aims to give an accurate sketch of the various methods used in philosophy. These methods include tools preferred by the analytic tradition such as the analysis of language and the axiomatic methods, the hermeneutic and phenomenological outlooks of the continental traditions, but also others less obviously tied to such traditions, such as experimental philosophy and thought experiments.

By making this overview from the perspective of philosophy on a whole, the aim is to contribute to both the understanding of the methodology of philosophy, but also provide by this overview other advantages for future philosophical research by means of possible new productive insights. Furthermore, as sciences have in the recent decades been in many instance developing into more intersecting and interdisciplinary questions, this overview helps to foster such research by giving a helpful list of some of the relevant tools for philosophy at large.

The Scientific Revolution as a debate of world-views

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The paper interprets the 17th Century Scientific Revolution as a case of comparing world-views through a meta-theoretical debate. The article has three parts. First, it introduces technical definitions for a world-view and its frameworks, against the background of science/world-views debates. Second, it outlines a model for comparing world-views trough meta-theoretical debates in the spirit of J.G. Hamann, C.S. Peirce, Marja-Liisa Kakkuri-Knuuttila and Alasdair MacIntyre. Third, it applies the debate model to describe the transition from Medieval Aristotelianism to Galilei's mechanistic world-view. Thus, metatheoretical debates between different world-views can be used to develop new scientific paradigms and theories, and to assess philosophical views.

The theory of world-views can be motivated by the partial overlap of science and beliefsystems. World-views offer a background belief-system for scientific activities, as knowledge is mediated by commitment to a sign-system to interpret some order in reality or to pursue some goods. World-views are defined as a structure (Σ , I, M): Σ is a system of signs for responding to and capturing the fundamental truths about some domain or system S, I are the practices for interpreting the signs of Σ , and M is a moral framework of the world-view. The interpreting practices or interpretants I include language-games, symbolic practices, and empirical practices like sensorimotor and experimental activities. Each interpretative practice I is a game-like activity carried out in response to reality, and has a framework (agents, distinctions, habits, goals).

The second part develops a debate model for comparing world-views. World-views can be seen as high-level habits or strategies for encountering the order of reality and orienting towards the good. A world-view can, then, correctly recognize an order in reality and lead to the good through its habits. Incommensurable world-views can be contrasted through metatheoretical debates. One learns the practices of interpretation like language-games of the world-views, and then uses world-views as metatheories for each other. The debate between world-views is a conflict of their languages: each language aims to interpret the phenomena and the other languages. Comparison involves the pragmatic circles of both languages: forming a conceptual system leads to devising interpretations and testing them. World-views are modified in light of the results. A world-view can show to better than its competitors, if it can show that the competitor's interpretative strategies or moral practices don't work, the competitor cannot recognize a world-view's achievements, or contains contradictions or other confusions. The transition from Newtonian to quantum physics offers an example of world-view comparison.

The 17th century Scientific Revolution is another example of a world-view transition. Both medieval Aristotelian and mechanistic world-views had their general conceptual schemes and goals: the categories and anthropocentrism for Aristotelianism, mechanism, reductionism and determinism for the mechanist world-view. These conceptual schemes led to differing paradigms: natural place for Aristotelianism and Galileian physics for mechanism. Aristotelianism could not mathematize nature and its theories led to various problems that mechanism could easily point out. Medieval Aristotelianism was thus shown to be inadequate in the Scientific Revolution, and its real strengths lay elsewere – and they also complement the weaknesses of mechanism.

The Classical Method of Science in Metaphysics: An Object-Based Correspondence Theory of Truth as an Informal Axiomatic System

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In this talk, I suggest that a moderately naturalistic version of the classical method of science — also known as the analytic-synthetic and hypothetico-deductive method— would likely foster science-like progress in metaphysics if it were generally applied, namely, semantic, epistemic, functional, and noetic progress.

The classical method begins with problems, questions, or tasks and resolves them through two phases of constructing a theory. In the analytic phase, hypotheses that address the problems are sought from the literature or invented through abduction and/or induction. Those hypotheses that best meet naturalist criteria are selected as axioms for the theory. In the synthetic phase, it is demonstrated how the problems can be resolved in terms of the axioms using truth-preserving reasoning, for instance, by deducing explanations of phenomena from the axioms or by defining concepts in terms of the axioms.

As a case example, an object-based correspondence theory of truth (OCT) is formulated as an informal axiomatic system, whose task is to capture the correspondence intuition. Specifically, OCT aims to capture the meaning of common-sensical propositions such as "It is raining now in Helsinki" and "Peter is thinking about a circle," indicating that they are either true or false and explaining why they have a specific truth value, and to entail that all correspondence truths are mutually consistent. A number of axioms are selected as the basis for resolving this task. Most of them —such as mental realism, ontological realism, and the law of non-contradiction— are justified beyond reasonable doubt and widely accepted, while the notion of simultaneity remains a point of contention.

To foster science-like progress in metaphysics, the development of systems like OCT using the classical method should be legitimized. This goal helps to identify contemporary obstacles or attitudes that practically prevent the application of the method, such as the following. First, the view that it is not the task of philosophy to acquire knowledge and that philosophy is exclusively an analysis of language hinders the application of the method, which requires ontological commitments as axioms for problem-solving theories. Second, the view that philosophy is solely a study of details, rather than comprehensive totalities, also prevents the application of the method, which builds metaphysical theories as fusions of several ontological commitments. To enable the classical method, we must prioritize an entire system of axioms and evaluate it against other systems (if any) that address the same problem. We may confront an individual axiom with its central alternatives and conclude that, for instance, the naturalist criteria favor the axiom over a version of eliminativism. However, we cannot effectively review various arguments against each axiom and concept of a complex system in a standard article.

On the evolution of theories in physics and cosmology

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Modern physics fundamentally emerges from empirical foundations, with theories and natural laws developing through systematic observation and experimentation. Historically, a fascinating bidirectional relationship exists: prevailing worldviews profoundly shape how observations are interpreted and theories formulated, while established theories subsequently transform our collective understanding of reality.

This presentation examines the revolutionary period of early 20th century physics, when relativistic phenomena first came to light. Einstein's theory of relativity offered an explanation by reconceptualizing time and distance as variables—quantities previously considered absolute coordinates essential to human comprehension of the physical universe. I demonstrate that the same relativistic phenomena can be explained while preserving time and distance as universal coordinate quantities. This alternative becomes possible when the local, kinematic approach of relativity theory is replaced with a holistic framework built upon the principle of overall energy conservation in space.

Formal Methods in Philosophy —Some Ideas from Hintikka

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What is the purpose and the justification of formal methods in non-formal philosophy, that is, in philosophical discussions that do not concern or involve mathematics, symbolic logic, statistics, probability or other inherently formal matters?

A trivial answer is that formal tools are needed in clarification and explication of philosophical claims as well as the arguments supporting them. But there is clearly more to it. One champion of formal methods, Jaakko Hintikka, discussed, for instance, "structural sexism" within model theory (Hintikka & Hintikka 1983) and applied quantification over functions to the aesthetics of cubism (Hintikka 1975). Whatever purpose mathematical notation and logical symbolism serve in these expositions it is not clarification.

In this talk I contemplate some ideas concerning formal methodologies in Hintikka's published and unpublished writings and compare them to methodological views of Russell, Quine, and Kripke.

- Hintikka, Jaakko & Hintikka, Merrill B. (1983): "How Can a Language Be Sexist?" in Discovering Reality. Feminist Perspectives on Epistemology, Metaphysics, Methodology, and Philosophy of Science, ed. by Sandra Harding & Merrill B. Hintikka, Reidel, Dordrecht 1983, 139–148.
- Hintikka, Jaakko (1975): "Concept as Vision: On the Problem of Representation in Modern Art and in Modern Philosophy" in Hintikka, Jaakko (1975): *The Intentions of Intentionality*, Reidel, Dordrecht, 223–251.

Epistemic Modality: Accounting for the Metaphysical Underdetermination of Science

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A common criticism of metaphysics is that it is underdetermined by observable phenomena, especially from science. In that, if there are myriad, conflicting metaphysical theories which are compatible with the phenomena science discovers, then how are we to know which is correct? Metaphysicians have retorted that one can appeal to extra-empirical virtues, especially explanatory power, to determine which metaphysical theory is true. A notable critic is van Fraassen: who developed an empiricist program which rescinds any epistemic warrant for metaphysics because of concerns about this strategy. Contrary to common belief, van Fraassen is not entirely dismissive of metaphysics but views them as having pragmatic value. I argue that van Fraassen even makes room for *metaphysical models* within scientific theories in the form of extensions. Since these are models of scientific theories, van Fraassen would even argue that they inform us how reality *might be* relative to the truth of the scientific theory it constitutes. However, van Fraassen (1980) famously recommended that the empiricist should be agnostic about the truth of science, and instead should only commit to its empirical adequacy. Therefore, the empiricist would be agnostic about these possibilities and hence metaphysical knowledge in general. This is consonant with van Fraassen's (1991, Ch. 12.5) rejection of 'metaphysical realism' where he claims '[t]here cannot be in principle... convergence to a single story about our world.'

In this talk, I argue that van Fraassen's empiricist response to the metaphysical underdetermination of science leads to scepticism and instead offer my own resolve without relying on appeals to explanatory power. I criticise van Fraassen's empiricism; by arguing that it allows for empirically inadequate metaphysical models to constitute scientific theories. If the empiricist remains agnostic about these metaphysics and allows them to constitute the theory, then they would be agnostic about science's empirical adequacy. This is because, they are then agnostic about models, that form part of scientific theories, with a conflicting empirical import to what is observed; hence his empiricism leads to scepticism. To escape scepticism, I argue we can only allow empirically adequate metaphysical models to constitute scientific theories. Therefore, we rule out, and so deem false, empirically inadequate metaphysical models to attain empirical adequacy. Then, I highlight that van Fraassen regards the models of a scientific theory to be possibilities of the way reality might be if the theory were true. Owing to the earlier concerns, we cannot be agnostic about the models a scientific theory consists of, and hence the possibilities it posits. Instead, I argue they are constrained by what even the empiricist concedes we know - the empirical content of science. Therefore, empirically adequate metaphysical theories are epistemically possible (the nature of which I explain in the talk) relative to what we observe in science. Contra van Fraassen, there is a prospect of 'convergence to a single story about the world' as our experimental findings grow, since we can rule out empirically inadequate metaphysics.

Van Fraassen, B. (1980). The Scientific Image. Oxford University Press.

Van Fraassen, B. (1991). Quantum mechanics: an empiricist view. Oxford University Press.

Conceptual moral progress

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Progress is a kind a change — an ameliorative one. But when are changes ameliorative? Which standards must they respect to be considered progresses? This is no trivial question, for the changes we normally consider as progresses (e.g., the transition from the hierarchical and theological *weltanschauung* of the *Ancien Regime* to the egalitarian and secular one of liberal societies) did not only bring about new norms and moral views, but also new standards for assessing progresses.

The question above is daunting when we consider cases of moral progress concerning norms and behaviours. But it gets even more daunting for a specific kind of moral progress, namely progressive conceptual changes – such as the abandonment of the value-concept of chastity, or the introduction of the concept of sexual harassment and marital rape. Indeed, whereas moral philosophy provided plenty of tests for assessing norms and behaviours, concepts have been mostly left out of the picture, and yet they get to orient our thinking and conduct just as much as norms do.

In this paper, I bring the conceptual ethics and conceptual engineering literature to bear upon this question, and I do so in the following way. First, I compare different views about the point and purpose of conceptual engineering, recasting it as an enterprise mostly concerned with answering the question of which concepts are authoritative, i.e., which concepts are entitled to structure our thinking and conduct. I do so by showing that moral concepts, such as the one mentioned above, can hardly be assessed on the same terms in which scientific concepts (such as oxygen, gravity and so on) are. Whereas the authority of scientific concepts can be traced to their capacity of carving reality at its joints, the authority of moral concepts — I argue - depends on their capacity to address both basic and more local socio-historical needs.

Then, by drawing on Queloz (2025) and other functionalist conceptual engineers, I proceed to show how such a need-based view offer a pragmatic conception of conceptual moral progress capable of avoiding the circularity problem affecting most of its close competitors, such as Anderson's (2014) and Kitcher's (2025) pragmatic accounts of moral progress in terms of increases in inclusivity. Whereas such views presuppose the universal validity of some of the moral convictions they aim at justifying as progressive — most importantly, the conviction in the fundamental equality of moral status of all human beings — I argue that the need-based view and the related methodology allows to frame some conceptual changes as progressive without doing so, thereby offering abductive 'vindicatory explanations' of why such concepts took hold.

Anderson, E. (2014), Social movements, experiments in living, and moral progress: Case studies from Britain's abolition of slavery, The Lindley Lecture, University of Kansas.

Kitcher, P. (2021), Moral Progress, Oxford, Oxford University Press.

Queloz, M. (2025). The Ethics of Conceptualization, Oxford, Oxford University Press.

How Philosophy Can Make Useful Progress

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Philosophy has been criticised for being practically irrelevant and lacking progress. In this talk, we explore the underlying motivations behind these criticisms and how one could address them. The central question is: What is required for philosophy to make useful progress? Here, we understand that something, like an assertion or method, is useful if it can make a difference in an evaluable manner. Useful progress, in turn, consists of the non-arbitrary justification of useful claims, methods, and such. We argue that for philosophy to make useful progress, its practice must be constrained in specific ways. To this end, we will outline a meta-methodology — a way of building and evaluating methods — for philosophical argumentation. Some philosophical doctrines, such as Woodward's (2003) contrafactual theory of causal explanation, count as progressive according to our methodological criteria. We illustrate our (meta-)methodology by applying it to some issues in contemporary philosophical debates.

Appeals to Common Sense in Contemporary Philosophy

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David Chalmers once wrote, as an aside: '[O]f course common sense can be overridden if we have compelling grounds to do so, but other things being equal, one should come down on the side of common sense rather than against it.' (D. Chalmers, *The Conscious Mind*, Oxford: OUP 1996, 219) Remarks like this are legion in contemporary philosophy; many present-day philosophers seem to agree with Chalmers and take it for granted – explicitly or, more often, implicitly – that

(1) it is *ceteris paribus* preferable to hold theories that are in accordance with common sense.(2) it is possible to rationally hold theories that are not in accordance with common sense.

But the methodological justification for both (1) and (2) is generally left unclear. More specifically, it is unclear what an appeal to common sense consists in. Is it an appeal to intuitions (and if so, to which ones)? Or is it an appeal to some mysterious mental faculty besides intellect, perception, memory, and intuition (if there is such a thing as a faculty of intuition)? Does it consist in referring to what we may call 'the wisdom of the many'? (This seems at least to be suggested by the word 'common'.) Or is it something else entirely?

In my talk, I will first explore noteworthy features of the concept of common sense and then analyse its methodological role in present-day philosophical exchanges. In particular, I will address the question of whether the widespread practice of referring to common sense in defending or attacking philosophical positions is well-founded or should better be abandoned.

As I will point out, current philosophers' use of the expression 'common sense' differs significantly from both everyday usage and usage in traditional common sense philosophy, as it can be found in the writings of philosophers such as Thomas Reid and G.E. Moore. According to what I will argue, the appeal to common sense, as the notion is usually referred to in contemporary philosophical exchanges, should be regarded as an appeal to those currently and commonly held strong dispositions to believe that are not put into doubt by powerful rebutting defeaters. This implies that whoever disbelieves a commonsensical proposition swims against the current. And this in turn explains the critique to which uncommonsensical people and positions are often exposed. The accusation of not being in line with common sense is the accusation that one is claiming something that almost all contemporaries regard even after careful examination as hardly believable. The underlying reasoning seems to be that something so much in opposition with well-informed contemporary thought can hardly be right.

But of course it can. There is no shortage of examples in our history, and especially in our history of science, for mistaken beliefs that were once common sense. So (2) appears to be true.

What is more, the considerations mentioned above entail that typically, invoking common sense is nothing else than to appeal, usually tacitly, to a *criterion of conservativeness* when choosing between two or more rival theories. For conservativeness includes not to disagree too much with conventional opinion, and common sense is roughly the sum of conventional opinions. The question of whether (1) holds then boils down to the question of whether one should apply a criterion of conservativeness. The fact that such a criterion is not well apt to identify the theory that is most likely to be true sheds a dubious light on philosophical appeals to common sense.

AI as a measurement tool in science?

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The growing availability of computational data analysis methods and tools is reshaping the research landscape in sciences. Rather than reasoning directly based on the summary statistics of measured data, contemporary scientific publications predominantly incorporate advanced computational inferences, often facilitated by statistical models and software tools developed by other researchers. Some of these popular tools are not even open source, and the exact algorithmic details behind the methods are publicly unknown. In addition, narratives of scientific texts and oral presentations increasingly commonly assign agency of scientific reasoning to computational methods, including AI.

While the availability of advanced computational methods in combination with large-scale datasets opens new possibilities to discover patterns that could not be visible before when using simple measurement tools and basic statistics, they also increase the risks of misguided scientific inferences and systematic biases in the interpretations.

In this talk, I will discuss the opportunities and risks of applying AI as a measurement tool for scientific discoveries. I will review how using computational inference methods for scientific discoveries, including statistical and machine learning methods, has changed over the past 50 years. The review draws on my survey of techniques used for computational inference presented in publications in life sciences in the leading scientific journal *Nature*.

I will ask to what extent AI can serve as an instrument for measuring properties of physical systems and how, in accordance with measurement theory, humans can then extrapolate and lift these insights to achieve scientific understanding. I will generalize these results to argue in which ways AI-based approaches to computational inferences can potentially be used to generate scientific knowledge.