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Language, truth, and reality
An introduction

Arto Laitinen, Markku Keinänen, Jaakko Reinikainen & Aleksi Honkasalo

Let us start with a quote from Timothy Williamson (Chapter 2):

> "I have known Panu Raatikainen and his work since the last millennium. He has always struck me as a force for both sanity and clarity, two quite different virtues. The first time I heard him give a paper, when I was still a professor at Edinburgh, he deftly used the basic distinction between theories and languages to diagnose a fatal confusion in some famous arguments about the philosophy of language, cutting through the technicalities to expose the underlying philosophical error. Again and again, Panu deflates pretentious overblown claims and looks beneath slick formulations to see what they conceal. He does so in debates where formal logical considerations loom large, and mathematical prowess can easily be mistaken for philosophical insight; because he understands the mathematics so well, he is able to show what it does *not* imply about the problem at issue. Such work is vital to keeping philosophy honest and on the right track. Long may Panu continue to contribute in his distinctive way!"

These words by Timothy Williamson provide a fitting motto for this collection. The collection brings together leading philosophers who have encountered Panu Raatikainen in various academic occasions, as well as past and present colleagues. Its purpose is to celebrate Panu's 60th birthday with a mosaic of papers discussing

various topics handpicked from his long and prosperous career in philosophy.

Panu Anssi Kalevi Raatikainen, native to Kajaani, defended his doctoral dissertation *Complexity, Information, and Incompleteness* at the University of Helsinki in 1998. In 2014 he got a tenure-track position in the University of Tampere, which in 2021 grew into full professorship. He is a Docent in Helsinki (2001) and in Tampere (2013) and was a Visiting Researcher in the Universities of St. Andrews (2004), New York (2005), and London (2006). He has held numerous academic administrative, leadership, and supervisory positions, engaged regularly in teaching and peer-review work, and supervised MAs and PhDs. His research output exceeds over a hundred publications. Beyond academia, Panu is a well-known, ardent commentator and public discussant in the Finnish affairs of science, politics, and culture.

Panu's academic work in philosophy ranges from the philosophy of mind and language to truth and science, logic and mathematics. As aptly described above, his signature contribution in any area is bringing argumentative transparency to foggy and complex debates. A perfect example is Panu's long-lasting advocacy of semantic externalism, and in particular the causal-historical theory of reference inaugurated by Saul Kripke. Here, he has contributed several influential articles over the years, specialised in pointing out the distorted or mistaken views that often underlie the criticism of Kripke. Another, completely different area where Panu enjoys indubitable expertise is the literature on Gödel's incompleteness theorems, where he is the author of the respective entry in the famous Stanford Encyclopedia of Philosophy. A third, yet distinct debate he has left his mark on is the philosophy of causation, in particular mental causation, where he has critiqued the so-called exclusion argument advanced by Jaegwon Kim. Other areas that he has been involved in include the question of free will, various issues in the philosophy of science, and the history of analytic philosophy.

In addition to his internationally recognized contributions to philosophy, Panu has also published significant amount of work in Finnish. These include work aimed for academic philosophers, as well as work intended for wider audiences, such as *Ihmistieteet ja Filosofia* (*Philosophy and the Human Sciences*), which has been widely used in Finland as an undergraduate textbook for various social sciences and humanities.

Panu's most recent work in the philosophy of mind continues to highlight his aptness for critical thinking. For example, in a paper presented both at the 7th Parma Workshop on Semantics and Pragmatics (2024) and at the annual Colloquium of the Philosophical Society of Finland (2025), he presents a new, fatal problem for David Chalmers' influential two-dimensional framework for meaning and reference.

As Panu's work has in many ways touched on the nature of Truth, Language, and Reality, we were happy to notice that no book with that title has been published—our search only returned book sections. We were pleased and honoured to get contributions from eminent philosophers, from Panu's supervisees, and past and present partners in crime.

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Let us next take a short look at the chapters of the volume. Part One contains essays on truth and on philosophy (Chapters Two to Seven).

Timothy Williamson takes a sober bird's-eye view at the various senses of naturalism currently circulating in analytic philosophy in Chapter Two, 'On "naturalism"'. Williamson finds that it is often too easy to both overstate and understate the relevance of natural and non-natural sciences to one's metaphilosophical views, showcasing this with select examples.

Anssi Korhonen examines *what analytic philosophy is* and *what it has been*, in Chapter Three, "In search of analytic philosophy." He starts from two points: first, analytic philosophy is a genuine and distinctly recognizable *philosophical* and *historical* phenomenon, whose identity differs from that of, say, phenomenology and the phenomenological tradition. Second, analytic philosophy is a key tradition in twentieth century Western thought that has existed for at least one hundred and twenty years, maybe over a hundred and forty years, defined ostensively by Sluga (1997, 17fn.):

> "Following common practice, I take analytic philosophy here as originating in the work of Frege, Russell, Moore, and Wittgenstein, as encompassing the logical empiricism of the Vienna Circle, English ordinary language philosophy of the post-war period, American mainstream philosophy of recent decades, as well as other worldwide affiliates and descendants."

Korhonen compares Panu Raatikainen's definition of analytic philosophy to those of others and ultimately concludes that *no* feasible analytic definition can be given. All such proposals, including Raatikainen's sophisticated revisionary definition, inevitably misrepresent the nature of the phenomenon under consideration. Instead, the problem should be tackled *historically*: researchers should stick to 'analytic philosophy' as a lexical item, thus obtaining a pre-theoretical and agreed-upon notion of *analytic tradition* as a starting-point.

Juhani Yli-Vakkuri and Zachary Goodsell engage with Alfred Tarski's theory of truth in Chapter Four, "A categorical theory of truth". In his classic 1933 paper "On the concept of truth in formalized languages", Tarski proposes his famous Convention T as a 'criterion of adequacy' for a definition of truth. There is widespread dissatisfaction with Convention T in the literature, beginning with Tarski's own paper, as well as with the very idea of a "criterion of adequacy"—as opposed to a criterion of correctness—for definitions of truth. A criterion of correctness would take the form of (in Tarski's terms) a categorical theory of truth for the object language, from which the definition could be derived. (The term categorical is understood here in a proof theoretical sense rather than the now more common model-theoretical sense.) Yli-Vakkuri and Goodsell propose that Convention T should be discarded and replaced by the categorical theory of truth they show how to construct, from which Tarski's definition of truth can be derived. Thus, Tarski's truth definitions are vindicated, while his (by his own lights) unsatisfying Convention T can be forgotten.

In Chapter Five, "Putnam's transcendental arguments", Sami Pihlström tackles a long-running debate between Panu Raatikainen, Hilary Putnam, Ilkka Niiniluoto and Pihlström himself over language and metaphysical realism. The exposition provides both a useful overview of the topic and argues that Putnam's later position can usefully be compared to Kant's transcendental idealism.

In Chapter Six, Markus Lammenranta defends a form of Academic skepticism that denies the possibility of knowledge about the external world. The standard argument for it relies on internalism and infallibilism, doctrines that were widely accepted in the history of epistemology until the late 20th century. Contemporary epistemologists typically deny at least one of them, because together they lead to skepticism. Skepticism is thought to be bad because it conflicts with common sense, our ordinary epistemic practices, and linguistic data. Lammenranta argues that this is not so, that Academic skepticism gives in fact a better explanation of our intuitions and linguistic data than dogmatic epistemology. Finally, following the steps of Arcesilaus, Carneades and Hume, he shows how Academic skepticism can give a good response to the Stoics' Apraxia objection that skepticism makes rational action and good life impossible. On the contrary, it is skepticism that makes a good and flourishing life possible.

In Chapter Seven, Inkeri Koskinen examines whether the argument from inductive risk is just research ethics. The argument from inductive risk (AIR) is one of the most influential arguments against the value-free ideal of science. The value-free ideal (VFI) states that "while non-epistemic values can legitimately influence the "external aspects" of science, such as the choice of research projects, only epistemic values – that is, values that promote the attainment of truth – have a legitimate role in the central stages of scientific research, especially in the assessment of evidence and the justification of findings." Researchers, however, have the "responsibility to consider the predictable, non-epistemic consequences of any errors they make in their research: a scientist, as a scientist, has no special license to recklessly or negligently risk others.". And AIR concludes: "Researchers face inductive risks throughout the research process. Therefore, non-epistemic values must also influence the internal stages of the process." Overall, Koskinen defends the view that the argument from inductive risk is at heart a (research) ethical one, but that it shows that value-freedom is untenable as an ideal. It starts by introducing the value-free ideal and the argument from inductive risk and then argues that ideals ought to be such that they can guide action. Finally, Koskinen argues that the argument from inductive risk does not just point out some constraints to our ability to follow the ideal of value-freedom but shows that it is undesirable as an ideal.

Part Two contains essays on *language* (Chapters Eight to Fourteen).

Michael Devitt argues in Chapter Eight, "Quantifier phrases with referential meanings?" that not only definite but also indefinite descriptions are semantically ambiguous, allowing for both conventional attributive and referential uses. This goes against Gricean strategies that seek to eliminate such ambiguity by an appeal to general pragmatic principles. Devitt also argues that examples provided by Mario

Gómez-Torrente for referential uses of quantifier phrases do not in fact fit the bill, although some other quantifier phrases do.

Genoveva Martí starts Chapter Nine, "No-content explanations" by noting that typically, explanations of semantic and cognitive phenomena are given by appeal to content. She argues that we can find in the philosophical literature some good explanations of semantic and cognitive phenomena that are not content-oriented. These include Wettstein on cognitive value; Donnellan on empty names and Perry's first papers on indexicals. The only reason to not accept their satisfactoriness is the insistence in clinging to the assumption of the primacy of content. Martí argues, however, that if propositional content is conceived heuristically, as a convenient tool, it may have a useful theoretical role. If content is relieved from its position as the unique tool with explanatory power, content may have, after all, a legitimate theoretical role in contributing, partially, to *some* explanations.

Pasi Valtonen examines, in Chapter Ten, the meaning of absurdity in the context of logical inferentialism and Carnap's problem. According to Panu Raatikainen, logical inferentialism cannot solve Carnap's problem, unlike its model-theoretic rival. In their reply, Julien Murzi and Ole Thomassen Hjortland show that intuitionistic inferentialists like Dummett and Prawitz can handle the problem but remain sceptical about a classical inferentialist solution. Valtonen reveals some problems with their solution due to Prawitz's and Dummett's view of absurdity. He offers a Tennant-style paraconsistent view of absurdity. It not only solves the exposed problems in the intuitionistic solution but also contributes to the classical inferentialist solution.

Jaakko Reinikainen defends in Chapter Eleven, "Questions of reference", a piece of conventional wisdom—that descriptivism fails—with conventional arguments—namely, from incompleteness and redundancy—against a recent case made by Jens Kipper and Zeynep Soysal. He draws centrally from recent work by Panu Raatikainen, (2020) "Theories of Reference: What Was the Question?" with the overarching aim to show that many of Kipper and Soysal's arguments can be met with answers already provided by Raatikainen.

Aleksi Honkasalo examines, in Chapter Twelve, the relationship between Carnapian explication, and modern conceptual engineering. It is now commonly recognised that conceptual engineering has its roots in Carnapian explication, in which vague prescientific concepts are refined into exact scientific concepts. However, whereas modern conceptual engineering is almost universally understood as a normative endeavour—instead of asking what concepts are, it ask what concepts should be—for Carnap language has "no morals", and thus one is free to choose their language as one sees fit. Carnap's liberal approach towards language could suggest that normativity is what differentiates modern conceptual engineering from Carnapian explication. Against this, Honkasalo suggests that there is room for normativity in Carnapian explication. First, he argues that weak means-to-end normativity is essential for understanding both the explication and conceptual engineering. Secondly, he argues that, if the ends of explication are worth pursuing, explication can be seen as a strongly normative practice.

In Chapter 13, "Theories of reference: what really is the question?" Jaakko Kuorikoski focuses on Panu Raatikainen's view that the main question in theories of reference is: *In virtue of what* does a referring expression refer to whatever it *in fact refers to?* He argues that the two italicized points are in need of clarification. "What is the nature of the 'in virtue of' relation and what is the nature of the putative 'fact' of referring? What kind of an explanation is the theory of reference supposed to provide and what kind of a phenomenon is it that we are trying to explain?" Kuorikoski argues for a naturalist view that a theory of reference is, in fact, "a highly stylized model of data in a verbal form. A data model is a representation of data, which highlights some selected systematic features of the data in a cognitively salient manner. In the case of theories of reference, the primary data are the semantic intuitions, understood very liberally."

In Chapter 14, concluding Part Two of the book, Mikko Yrjönsuuri takes a fresh look at the topic of universal language, focussing on Ockham's theory and its relevance for contemporary thought. How ideal and universal is Ockham's mental language? Is there a definite answer? "Scholars did find interesting similarities in Ockham when Chomsky and Fodor had success in claiming universality in human and mental languages. But as the success of the latter waned, it was realized that Ockham's idea wasn't quite the same either. It may be so for all history of philosophy. Questions change. Thus, every generation must find its own answers to what exactly the past philosophers were trying to do. It is best to find them in a way that is helpful to one's own contemporaries rather than trying to uncover some eternal philosophical truths."

Part Three of the collection contains essays about realism and aspects of reality (Chapters 15 to 22).

In Chapter 15, Jani Hakkarainen discusses the rehabilitation of ontology and metaphysics in the 20th century, the origin of which is commonly traced back to Quine's "On what there is". In the article, Quine presents metaphysics primarily as an ontology. At the same time, he gives "ontology" a slightly new meaning: the task of ontology is to account for the various entities we assume to exist when we take certain propositions to be true. Hakkarainen notes, however, that Quine was not the first 20th century philosopher to rehabilitate ontology as a legitimate field of philosophy. In outline, in addition to the Quinean conception of ontology, Hakkarainen presents five different senses of "ontology", without claiming that these six senses constitute an all-encompassing list, "everything".

Ilkka Niiniluoto challenges Hasok Chang's Pragmatic realism in Chapter 16, "Ten queries about Hasok Chang's pragmatic realism". He shares Panu Raatikainen's (2004, 2014) defence of critical realism. Niiniluoto poses no less than ten challenges to a Neo-Pragmatic account of truth and realism, as presented in Hasok Chang's *Realism for realistic people: a new pragmatist philosophy of science* (2022).

In Chapter 17, Arto Laitinen and David P. Schweikard examine realism in social ontology. Realism is trending in recent scholarship in social ontology, but as Raatikainen (2014) among others has shown, realism means many different things.

In social ontology, even social constructionism, formerly taken to be a decidedly anti-realist view, is now prominently regarded as a form of realism. But what exactly does this mean? In what sense are social constructionists in social ontology realists in this domain? And, more broadly, what kind of realism would be plausible to adopt in social ontology? In discussing these questions, the chapter pursues three aims: First, it locates the question of realism by distinguishing between substantive questions about the reality of social phenomena and the meta-debate about defining realism in this domain. Second, it clarifies what it means to adopt realism in social ontology by providing a basic map of realisms and anti-realisms. Building on received taxonomies and terminology, Laitinen and Schweikard characterize cognitivism, success theory, mind-independence, and non-reductionism as realisms, and the opposed views of non-cognitivism, error theory, mind-dependence, and reductionism as anti-realisms. Third, with respect to these distinctions, they argue that only success theory provides a plausible candidate for realism in social ontology. This is because non-reductionism, although appropriate for characterizing realism in some local debates, and mind-independence, although regarded as the hallmark of realism in general metaphysics, are too maximal or demanding as definitions of realism in social ontology. Cognitivism, Laitinen and Schweikard argue, is too minimal.

In Chapter 18, "A nominalist theory of natural kinds and kind essences", Markku Keinänen formulates an eliminativist nominalist theory of natural kinds, which is nonetheless compatible with central epistemic and explanatory functions of natural kinds and natural kind classifications. According to the developed eliminativist nominalist view of natural kinds, there are no natural kinds. Since there are no natural kinds, there are no natural kind essences or de re necessary properties of natural kinds. There is nonetheless true general talk about the members of natural kinds and classifications of objects with the help of natural kind terms, which track mind-independent divisions. The nominalist theory stresses the epistemic and explanatory functions of natural kinds and natural kind classifications. By contrast, the metaphysically heavy functions of collecting the necessary properties of the members of the kind and determining the identity conditions of objects, which realists about natural kinds tend give to natural kinds, are taken care of by the nominalist basic ontologies. Because of its flexibility, this nominalist view of natural kinds interlocks well with the new theory of reference Panu Raatikainen (2020, 2021) defends.

Renne Pesonen discusses the relationship between free will and intentional explanations in Chapter 19, "On the irrelevance of freedom to the causal relevance of will". Many compatibilists believe not only that the freedom of the will is compatible with determinism but also that the notion of free will is indispensable for agency and intentional explanation. However, assuming that "will" can be given a psychological or other functional interpretation, concerns about freedom turn out to be mostly irrelevant for the agency or causal efficacy of the will. Arguments from the causal closure of the physical against the causal relevance of the will can be countered by the standard anti-reductionist analysis of levels of explanation: Will (or some of its

psychological cognates) need not be free in order to be real and causally relevant. Questions concerning freedom are either metaphysical or moral, but they are routinely confused with the separable question concerning the causal relevance of the will for intentional explanation.

Teemu Toppinen and Vilma Venesmaa examine mental and normative causation in Chapter 20. Panu Raatikainen offers an account of mental causation drawing on an interventionist approach to causation—developed, especially, in the context of philosophy of science – and on the idea that causal claims would carry an (often) implicit reference to contrast classes. Toppinen and Venesmaa defend the conditional claim that, if the interventionist account of mental causation of the kind that Raatikainen proposes is correct, then normative properties have causal power, even given a non-naturalist or a quasi-realist understanding of such properties. They note that the truth of the conditional might be taken to be problematic for the style of account of causation that Raatikainen favours, since it is often believed that normative properties should *not* turn out to have causal power given a non-naturalist or a quasi-realist construal of such properties. But the objective of the chapter is not to argue for this conclusion, only to argue for the truth of the conditional claim.

In Chapter 21 "Mental causation, folk psychology, and rational action explanation", Tomi Kokkonen evaluates the currently standard solution to the problem of mental causation pioneered, among others, by Panu Raatikainen. While being sympathetic to this way to tackle the problem, Kokkonen argues that since folk-psychological explanations are inherently ambiguous, there is no solution to *the* problem of mental causation. Rather, a clarification of the issue leads into a more multi-layered explication of mental causation events.

In the final Chapter, 22 "Could Raatikainen have written otherwise?", Valtteri Arstila examines the problem of free will. The question of free will is one of philosophy's classical problems, one which professor Raatikainen has addressed on two points. First, he has levied influential criticism against the so-called "causal exclusion argument" originally made by Jaegwon Kim. Second, he has identified key problems in the psychological experiments conducted by Benjamin Libet in the 1970s that purported to find a 'readiness potential' in subjects' brains that allegedly determined their decisions prior to the decision becoming conscious. Arstila provides critical remarks of both criticisms made by Raatikainen.

On the whole, we the editors would like to extend our heartfelt thanks to the authors for their ideas, efforts, and promptness, and we hope the readers will find these texts rewarding. We also give our gratitude to the four anonymous reviewers who read and commented on the chapters, and to our two interns, Amanda Kimari and Elisa Viitasaari, whose help with the manuscript was invaluable. Lastly, we congratulate Panu once more for reaching this milestone in his productive career. Four Hurrays, or more! And as a customary ending, and an inside joke for those in the know, we would like to quote Cato: *"Ceterum censeo Carthaginem esse delendam."*