
Tuomas E. Tahko, *An Introduction to Metametaphysics* (Cambridge: Cambridge University Press, 2015), 258 pp.

In the last decade, metametaphysics has excited great interest among professional philosophers. If Peter van Inwagen's assessment that before that time it was the most neglected topic in contemporary metaphysics is correct, the current situation cannot be more different. The change is largely due to the appearance of the seminal collection of essays edited by David Chalmers, David Manley and Ryan Wasserman, *Metametaphysics*, in 2009. Fast-growing and diverse academic production in this, only recently established, area of inquiry has created the need for a systematic survey of its main viewpoints, open debates, and various conceptual tools. Tuomas Tahko's new book fills that lacuna: it is the first introductory account of the study of foundations, methodology and epistemology of metaphysics, published as a part of the Cambridge Introduction to Philosophy series. It is intended as a textbook for graduate and advanced undergraduate students, but since the presented material presupposes only the basic knowledge of metaphysics the book can also be of use to readers not working in philosophy but having a general interest in metaphysics. However, Tahko does not only give an overview of the central questions and most influential answers in metametaphysics, but in various places he has neatly incorporated his own, broadly neo-Aristotelian views on the matter; professional philosophers will surely find Tahko's astute remarks and original insights thought-provoking and interesting in their own right.

The book consists of a preface, nine chapters, a glossary with explanations of the meaning of some more technical terms, and an index. In the first chapter, Tahko outlines the content of every section and indicates that, even though many authors use the terms "metametaphysics" and "metaontology" interchangeably, he understands the latter discipline only as a special branch of the former. Such a choice is perhaps influenced by Tahko's neo-Aristotelian predilections, as neo-Aristotelians typically attach more weight to the question of determining the "hierarchy of being" than to the question of what there is. The commending consequence of this approach is that a wider range of topics is covered than, for instance, in the *Metametaphysics* anthology, where almost all of the papers are focused on metaontology – in Tahko's book it is the subject of the next three chapters only.

Contemporary metaontology is usually considered to stem from the dispute Quine had with Carnap in the late 1940s and 1950s. Quine is often credited with reviving metaphysics after the long reign of antimetaphysically oriented movements in the twentieth-century philosophy and regarded as the founder of the mainstream position in metaontology: the "heavyweight"

realism, to use Chalmers's phrase. Deflationists of various sorts and antirealists are, on the other hand, commonly perceived as members of Carnap's lineage. Tahko points out, agreeing in that respect with a number of authors in the *Metametaphysics* anthology, that such a perception results from a somewhat distorted interpretation of the historical Quine-Carnap dispute. Tahko criticizes Quine's famous method for determining ontological commitments, which reduces the question of existence to that of the domain of quantification, and stresses that there are clear cases of ontologically noncommittal uses of quantification. After examining different ways to understand Carnap's well-known distinction between external and internal questions and his linguistic pluralism, Tahko concludes, following Matti Eklund, that accepting the external/internal distinction does not by itself lead to linguistic pluralism, but only with the extra assumption that there are different frameworks which are equally adequate for describing the world.

The last thesis is exactly what Eli Hirsch claims. Hirsch, a major advocate of metaontological deflationism, believes that the most charitable interpretation of the claims conflicting parties make when discussing physical-object ontology is the one according to which they ascribe different meanings to the existential quantifier. In his view, these disputes are merely verbal, as the apparent ontological rivals agree on all the facts but use different languages to express them; moreover, their languages are expressively equal as they cover the same set of characters. Theodore Sider argued against Hirsch that in ontology we are not just aiming to express all the facts but also to disclose their structure: according to Sider, there is a single meaning of the existential quantifier which carves at the joints. For Sider, metaphysical disputes are substantial, as the opposing parties use the quantifier in its sole natural meaning. Tahko admits that Sider's "ontological realism" is much closer to his neo-Aristotelian view than Hirsch's deflationary position, but, instead of simply taking sides, he rejects the general Quinean assumption which underlies the Hirsch-Sider dispute: adopting critical points of Kit Fine, Tahko renounces the idea that quantification is a reliable guide to ontological commitments.

Following Carrie Jenkins, Tahko points out that the term "ontological realism" can be understood in three different ways: 1) as a thesis that ontological disputes are substantial; 2) as a thesis that there is a single privileged quantifier meaning; and 3) as a thesis that there are objective ontological facts. The three theses seem *prima facie* independent: Sider would endorse all three, while Hirsch would accept the third only, which is sufficient, according to classifications of Chalmers and Karen Bennett, to be categorized as a realist. It is thus the rejection of the third thesis which is characteristic of ontological antirealism. Tahko remarks that conventionalism is often left out of such classifications, probably because it is a difficult position to uphold: although more akin to antirealism than realism, Tahko stresses that conventionalism neither implies nor is implied by antirealism.

The remaining five chapters of the book are dedicated to epistemology of metaphysics and the relationship between science and metaphysics.

In the chapter on grounding and ontological dependence, Tahko carefully distinguishes between various closely related notions of ontological dependence and discusses conceptual links between them. Citing well-known examples from Fine, Tahko shows that modal notions of rigid and generic existential dependence are too coarse-grained for providing metaphysical explanations; the notion of grounding, or of essential dependence, prominent in Aristotle but only lately re-introduced in contemporary metaphysics by Fine and E.J. Lowe, seems much better suited for the task due to its finer structure. Grounding, Tahko argues, will be theoretically advantageous only if essence is regarded as prior to metaphysical modality. In the neo-Aristotelian approach which Tahko underwrites, facts about essences are non-modal and ground metaphysical necessity; indeed, metaphysics is nothing else than an *a priori* inquiry into essences. It is thus important not to confuse grounding with the modal notions of ontological dependence in the vicinity, and also to keep it apart from truthmaking – the main difference being that truthmaking is usually understood as a relation between entities of different categories, which need not be the case with grounding. When analysing connections between these two notions, Tahko remarks that truthmaking may be considered a special case of grounding, namely truth-grounding. Interestingly, he suggests that this strategy would put pressure towards recognizing a multitude of different notions of grounding, since truth-grounding fails to possess an important feature commonly associated with grounding – transitivity. The plurality of grounding could endanger the explanatory power of the notion and, consequently, the whole neo-Aristotelian project. Tahko seems undecided here whether it would be better to deny that truth-grounding is a genuine case of grounding, or to accept that there are many different relations of grounding – some transitive, others not – and develop a more complex structure with, perhaps, a generic notion of grounding and multiple subspecies.

Many philosophers assume that there is a fundamental level of reality at which the chains of ontological dependence eventually terminate and that the proper task of metaphysics is to describe this ontological basis and reconstruct the towering hierarchy. The fundamental level is often conceived as populated with mereological simples; James Ladyman and Don Ross, however, have argued that physics tells against mereological atoms, since such atoms are usually thought of as independent agents, which is at odds with quantum entanglement. Tahko points out that ontological fundamentality should not be understood in mereological terms, and that Jonathan Schaffer's monism, according to which everything is grounded in the universe as a whole, is also a version of ontological foundationalism. Tahko, quite originally, suggests that we need not give up on the "levels of reality" metaphor

even if endlessly descending chains of (generic) existential dependence are allowed, as long as after a finite number of levels the same structure starts repeating itself all the way down: in his view, the presupposition of the ontological hierarchy precludes neither the infinity of ever simpler entities nor the infinity of levels, but infinite complexity.

In modal epistemology, Tahko advocates the hybrid view which combines some aspects of modal rationalism with some of modal empiricism, and which rests on his account of the relationship between *a priori* and *a posteriori* knowledge. He calls attention to cases that can be classified into both of these categories with equal right and points out that only very seldom, if ever, we encounter pieces of pure *a priori* or *a posteriori* knowledge. Tahko suggests that the distinction *a priori* / *a posteriori* is more productively applied to reasoning than to truth or knowledge, and that metaphysical knowledge, just as scientific knowledge, is usually reached by integrating *a priori* and *a posteriori* methods. Our knowledge of what is metaphysically possible is based on our understanding of essences, which is always to some extent *a priori* – Tahko thus labels his position as permissive modal rationalism. Although reached by *a priori* reasoning, a new piece of modal knowledge is the result of taking into account the already established empirical basis and is later subjected to empirical testing: if added to the stock, an *a priori* piece of knowledge can transform the previous *a posteriori* basis in radical and unpredictable ways; in Lowe's words, this process continues in "cyclical manner, by alternating stages of *a priori* and *a posteriori* inquiry" – Tahko calls this relationship "bootstrapping".

Tahko points out that intuitions and thought experiments are two irreplaceable sources of metaphysical knowledge. Claiming that intuitions are to thought experiments what perceptions are to experiments may be far-stretched, but the analogy nevertheless contains some truth. In contrast to perceptions, intuitions may be of abstract entities; however, it would be wrong to conclude from that, Tahko maintains, that intuitions reduce to linguistic or conceptual competence. For Tahko, intuitions are *a priori*, but empirically informed – the apparent tension in this claim dissipates if one recalls his theory of the bootstrapping relation between the *a priori* and the *a posteriori*. Intuitions quite often have a heuristic function, but, in Tahko's view, their role is not therewith exhausted: in some situations, especially in thought experiments, intuitions provide evidence, even though it is fallible. While experiments are designed to determine what is actual, thought experiments test the metaphysical possibility: the former terminate in observations, the latter in intuitions. The function thought experiments perform in science, Tahko persuasively argues, is not as radically different from their role in philosophy as some scientist or philosophers of science would have us believe.

In regard to the relationship between metaphysics and science, Tahko believes, following Lowe, that science and metaphysics (properly understood) complement each other in a fruitful way. Tahko takes the middle course between understanding metaphysics as completely autonomous and as wholly naturalized, and labels his reconciliatory view as moderately naturalized metaphysics. Metaphysics, according to him, neither occupies so superior a position as to be able to flagrantly contravene the findings of empirical sciences, nor so ancillary a position as to reduce to merely unifying the already established scientific results. Instead, it has a semi-autonomous status: it is an *a priori* exploration of the realm of the metaphysically possible, which precedes empirical investigations in science. Before discovering actual properties of an object by scientific means, we need to know its essence and, consequently, how this object could or could not be, delimiting thus the range of experiences we might have with it. In Lowe's opinion, we have direct cognitive access to essences and it is from our knowledge of essences that we derive truths about metaphysical possibilities. This is the point at which Tahko importantly diverges from Lowe, as Tahko claims that, in some cases at least, our cognition of essences is not as direct as Lowe assumes: full essences of natural kinds and chemical elements, for instance, could only have become known after some thorough scientific investigations had been successfully conducted, which, in their own turn, had relied upon previously accepted metaphysical hypotheses. It is again the dialectical bootstrapping between the *a priori* and the *a posteriori* – rather than the sharing of a method or a subject of inquiry – which unites metaphysics and science into a single endeavour of discovering the world's structure: according to Tahko, the metaphysical part of this metaphysics-cum-science compound helps us interpret and make sense of our theories, while the scientific part makes them empirically testable.

An Introduction to Metametaphysics is clearly written and enjoyable to read. Tahko manages to present and analyse some hard metaphysical and metametaphysical issues in an accessible and stimulating way. Abundant examples from science shed better light on how science and metaphysics can both be concerned with discovering the world's structure and still be using different methods: comparing metaphysics to science helps the reader understand the specific role of metaphysics in today's inquiry and, indeed, its necessity.

Andrej Jandrić

Faculty of Philosophy – University of Belgrade
Čika Ljubina 18–20
11000 Belgrade, Serbia
ajandric@f.bg.ac.rs