1 Why should you care about metametaphysics?

This introductory chapter deals with the motivation for studying metametaphysics and its importance for metaphysics more generally. The relationship between *metametaphysics* and *metaontology* is clarified, some guidance for reading the book is given, and chapter outlines are provided. In addition, the chapter contains suggestions for further reading, divided between introductory material and more advanced material.

Since you've opened this book, it is probably safe to assume that you have an interest in metaphysics. Perhaps you think that metaphysics is an interesting area of philosophy and want to know more about it or maybe you're a student or a professional philosopher specializing in metaphysics. Alternatively, you might be suspicious of metaphysics and its value or contribution within philosophy (and outside it). Perhaps you think that metaphysics is not a substantial area of philosophy because it focuses on pseudo-problems or merely conceptual, linguistic disagreements. You may be coming to philosophy from another discipline, such as the natural sciences, and you might be suspicious of the methods of philosophy, especially when compared with the rigour of your own discipline. Or perhaps you work in a different area of philosophy, wondering how on earth metaphysicians could possibly justify their outlandish claims about the structure of reality …

All of the above attitudes are *meta*metaphysical attitudes. Just as with any kind of attitude, if you hold a metametaphysical attitude you ought to be able to justify *why* it is that you hold it. The reason might be simply because you haven't seen much discussion about what metaphysicians are really up to or of how they think they arrive at their various metaphysical positions. If that's the case, you've opened the right book. If you're inclined to be dismissive about the value of metaphysics or think that its methods are spurious because you have read all the great metaphysicians and found their work wanting in this regard, you've also opened the right book. In

contrast, if you consider metaphysics the heart of philosophy and can't get enough of it, if you enjoy comparing different theories and judging their relative merits, then – you guessed it – you too have opened the right book.

The author of this book is a metaphysician working in the tradition that is usually called *analytic* metaphysics. The analytic vs. continental distinction is not – the author feels – particularly helpful, but for want of a more descriptive account, it should be made clear that this book is focused on the analytic tradition. The author of this book also has a particular metametaphysical attitude. This attitude is a type of *ontological realism*, which we will look into in detail later in this book. But as a reader, you should be aware that the author is biased in favour of certain types of realist metaphysics and towards the view that metaphysics does have both intrinsic value and an impact throughout philosophy and the sciences. This is not an uncommon attitude amongst metaphysicians, but it certainly requires justification. However, this is not a research monograph defending a particular position, so space will be given to various positions. Metaphysicians are a defensive lot; they hold their metaphysical views dear and their *meta*-metaphysical views perhaps even dearer, despite the fact that they don't always explicitly express the latter. So you will notice that the present author sometimes takes a defensive attitude. Accordingly, this introduction to metametaphysics is 'opinionated' – someone with a more dismissive attitude towards metaphysics would no doubt write a very different account. In any case, since it is still much too early to talk about a fully established set of metametaphysical views, despite certain clear patterns, anyone writing a book on metametaphysics has to make some difficult choices on how to lay out the various positions and indeed even what to *call* them. Similarly, the precise area that a book on metametaphysics – introductory or otherwise – should cover is certainly open to debate. This book, if anything, errs on the side of covering too much, since at times the reader may feel that the discussion has turned to *first-order* metaphysics instead of the promised meta-analysis of metaphysics. This is largely because it is very difficult, impossible even, to discuss the various metametaphysical issues without resorting to a battery of examples of first-order metaphysical debates.

The reader will soon notice that there are two themes not obviously included under metametaphysics, but discussed extensively throughout this book. They are epistemology and (philosophy of) science. Although it

is true that these topics are not obviously metametaphysical in themselves, it would be difficult to avoid them altogether when discussing metametaphysics. The reason for this is quite simple. A central, perhaps *the* central question of metametaphysics is: How do we acquire metaphysical knowledge? Here is an alternative formulation of essentially the same question: How does metaphysical inquiry work? These are very clearly *epistemic* questions, having to do with metaphysical knowledge. Science and its philosophy enter the picture very quickly after these initial questions, for one popular answering strategy to epistemic questions in metaphysics is that metaphysical knowledge and inquiry have something to do with *scientific* knowledge or inquiry. Of course, not everyone would accept this answer and even if one does, difficult questions remain concerning the exact relationship between metaphysical and scientific knowledge. At any rate, most metaphysicians today would readily propose that there is either some sort of important parallelism or else some continuity between metaphysics and science. At the same time, metaphysics is also one of the last frontiers of philosophy where pure 'armchair reasoning' without any connection to experimental methods may seem a perfectly acceptable method of inquiry. So there is also a tension here, one that strongly divides opinions. Given all this, it is difficult to see how any book concerning metametaphysics could remain completely silent about epistemic or scientific matters – this one certainly doesn't.

1.1 Metametaphysics or metaontology?

Most readers interested in metametaphysics are no doubt familiar with another, closely related term, namely *metaontology*. The title of this book is a conscious choice: we can distinguish between metametaphysics and metaontology. The usage of these terms is not entirely standardized, but roughly put, it could be said that metametaphysics is the broader of the two terms. More precisely, metametaphysics encompasses metaontology, but covers other issues as well. This type of distinction can also be made between metaphysics and ontology. The term 'metaphysics' has an Aristotelian origin: according to the usual story, the 'meta' ('beyond', or 'after') refers simply to the fact that in certain collected works of Aristotle some works appear *after* his works concerning physics. So 'metaphysics' does not really refer to the content of these works, but rather their

original relative locations. The term 'ontology', however, has a more content-oriented Aristotelian origin, as the Greek ουτα (onta) refers to 'being'. So ontology is the study of being (or being *qua* being – being as it is in itself, as Aristotle might add). Note however that Aristotle did not use these terms; they have been adopted later on. Ontology emerges as a somewhat more well-defined, albeit extremely general, area of study, whereas metaphysics is typically conceived as concerning reality or the *structure* of reality, in an even more general sense. The distinction between metaphysics and ontology is, however, vague at best, since many authors use the terms interchangeably. Accordingly, similar vagueness affects the distinction between metaontology and metametaphysics.

But what is metaontology? The first systematic use of the term is usually credited to Peter van Inwagen's 1998 article of the same title.[1] In van Inwagen's usage, the term 'metaontology' has Quinean connotations. Quine considered the central question of ontology to be 'What is there?' – something that we will discuss in Chapter 2. But van Inwagen points out that if we wish to consider what it is that we are asking when we say 'What is there?', this seems to go beyond ontological questions, hence *meta*ontology. Van Inwagen defines a fairly strict sense of the term: metaontology in Quine's sense concerns quantification and ontological commitment (these will be discussed in more detail in Chapter 3). This turns out to be a fairly narrow understanding of metaontology, but note that on this definition the metaontological question could be different for someone other than Quine, who might think differently of the task of *ontology*. In any case, largely because of this original usage of the term, metaontology is typically understood in this relatively narrow sense. In passing, we might note that one alternative understanding of the task of ontology, perhaps closer to the Aristotelian line, would be to give a central position to so-called 'formal ontology'. This term of art does not refer to ontology conducted with formal methods (although it could involve formal methods); rather, it refers to the study of *ontological form*, which involves the structures and relations in which ontological elements (such as objects) stand.[2] More generally, ontology understood in this fashion involves an examination of the categorical

[1] Peter van Inwagen, 'Metaontology,' *Erkenntnis* 48 (1998), pp. 233–250.

[2] The terminology has Husserlian origins, see Barry Smith and Kevin Mulligan, 'Framework for Formal Ontology,' *Topoi* 3 (1983), pp. 73–85.

structure of reality – a task which goes back to Aristotle's *Categories*. One contemporary example of the systematic study of ontological categories in this sense is E. J. Lowe's *four-category ontology*.[3] Hence, it is not difficult to see that 'metaontology' understood from this point of view could amount to something quite different than when understood from the Quinean point of view. Partly for this reason, the title of this book contains the broader term, namely 'metametaphysics', for we wish to account for *both* of these views.

One source of confusion regarding the term 'metametaphysics' may derive from the fact that the best-known work containing the word in its title – the 2009 *Metametaphysics* anthology edited by David Chalmers, David Manley, and Ryan Wasserman – is by and large focused on the project of metaontology as van Inwagen defines it (with some exceptions).[4] Indeed, the subtitle of the anthology is 'New Essays on the Foundations of Ontology'. In fact, the terms 'metaontology' and 'metametaphysics' are also often used interchangeably. But let us attempt to define the term 'metametaphysics' as it is used in this book.

> *Metametaphysics* $=_{df}$ The study of the foundations and methodology of metaphysics.

Here, 'metaphysics' is understood to encompass ontology, so metametaphysics will also involve the study of the foundations and methodology of ontology. Accordingly, metaontology is to be understood as a subspecies of metametaphysics. Chapters 2 and 3, and to some extent Chapter 4, could roughly speaking be said to concern metaontology in van Inwagen's sense, although they do not do so exclusively. Subsequent chapters (Chapters 5 to 9) concern the methodology of metaphysics in a much broader sense; they also involve a great deal of epistemology. However, the reader is advised to not put too much weight on these distinctions, as they are indeed vague. The guiding thought in this book is to be inclusive and the suggested definition of metametaphysics certainly allows this. Both terms, 'metaontology' and 'metametaphysics', are used in this book, roughly in the sense suggested here; that is, metaontology refers primarily to the

[3] E. J. Lowe, *The Four-Category Ontology: A Metaphysical Foundation for Natural Science* (Oxford: Clarendon Press, 2006).

[4] D. Chalmers, D. Manley, and R. Wasserman (eds.), *Metametaphysics* (Oxford University Press, 2009).

study of existence, quantification, and ontological commitment, whereas metametaphysics encompasses these areas and also broader issues in the methodology of metaphysics.

1.2 How to read this book

This book is aimed at relatively advanced undergraduate and graduate students with at least some prior knowledge of metaphysics and related fields. However, being the first of its kind, it will also prove helpful to professionals working for example on metaphysics, epistemology, or philosophy of science. While some prior knowledge of metaphysics is assumed, prior knowledge of *meta*metaphysics is not necessary. An introductory course in metaphysics ought to be sufficient to follow the book, at least if the reader supplements this book with some of the further material referenced within it. The recommended background is an advanced course in metaphysics and basic knowledge of philosophical logic, although formalism is kept to a minimum. It should perhaps be emphasized that the reader is certainly advised to read some of the primary material referred to in the book, for it is impossible to do justice to all the topics that we will cover. Partly for this reason, a fairly extensive bibliography for an introductory book is provided. Emphasis is given to some of the most recent literature in metametaphysics, with the hope that even experts in the field may find the book useful. The book also includes a glossary with short definitions of some of the most important technical terms. The glossary is not exhaustive and the reader is also advised to consult the index for the full context of each term, but the glossary can be used as a quick reminder.

There are no particularly important guidelines regarding the process of reading this book. The book has been written with the assumption that most readers will proceed from the beginning to the end and this is indeed the advisable order for those not very familiar with the topics of the book, but each chapter can certainly be read on its own. Typically, when some prior knowledge of relevant concepts, views, or tools is assumed, this is indicated in the text, with reference to the chapter where the concept/view/tool was first introduced. More advanced readers should have no trouble jumping ahead to topics that interest them. If the book is used for a course in metametaphysics, the teacher may decide to pick individual

chapters to supplement other material. The same can of course be done with a normal metaphysics course, as many introductory courses in metaphysics now contain lessons on the methodology and foundations of metaphysics.

One aspect worth mentioning here is the number of examples from the sciences that the reader of this book will encounter. In many cases, certain metaphysical positions are illustrated with examples from the natural sciences, physics and chemistry in particular. It is assumed that most readers will have some familiarity with many of the examples from previous metaphysics or philosophy of science courses, but they are generally laid out in such a way that no prior knowledge is necessary. There are a few exceptions, though. For instance, certain examples from fundamental physics may be difficult to understand without any prior knowledge of physics, even though they are not presented formally. However, in these cases, the reader will not miss anything absolutely crucial if they decide to skip the more detailed examples.

A final note on the system of referencing used. Full bibliographical detail is provided in footnotes and also in the final bibliography. In each chapter, the first reference includes the full bibliographical detail; later instances use the short-title system.

1.3 Chapter outlines

A brief outline of each chapter is provided below. The purpose of these outlines is to give the reader a general idea of the topics discussed in each chapter. Note however that technical terms and various 'isms' are not defined in the outlines, so the reader should not be too concerned about being able to understand the relevant views – that's what the chapters themselves are for. Although each chapter can be read on its own, some of them are thematically connected. This is the case especially with Chapters 2 and 3, and partly also Chapter 4. These three chapters focus on metaontology as it was defined earlier, although no particular attempt is made to stay strictly within metaontology. Chapters 5 and 6 are somewhat technical, as they introduce the metaphysician's 'toolbox' – concepts and tools of formal ontology that are used in metaphysics and metametaphysics. Both chapters also apply these tools. Chapters 7 and 8 turn to epistemic matters, discussing the methods of metaphysical inquiry. Chapter 9 concludes

the book with a discussion of the relationship between metaphysics and science, taking advantage of much of the material of the earlier chapters.

Chapter 2: Quine vs. Carnap: on what there is and what there isn't

The historical origins of metametaphysics are typically traced back to the debate between W. V. Quine and Rudolf Carnap in the 1940s and 1950s. In this chapter, an overview of that debate will be given, but the historical details and the original context of the debate will not be the main subject. One central topic is the status of existence questions such as 'Do numbers exist?' Are such questions substantial or merely conceptual, to be settled by linguistics rather than genuine metaphysics? Carnap was famously sceptical about the metaphysical import of such questions, arguing that there is nothing substantial at stake when we ask such questions. The resulting view is a type of *language pluralism*, according to which we can choose our ontological framework – our preferred language – liberally. Alexius Meinong's views on the matter and the problem of 'Plato's beard' – dealing with non-existence – will also be discussed. Carnap's distinction between internal and external questions is outlined and some of its modern applications discussed.

Chapter 3: Quantification and ontological commitment

This chapter continues to discuss existence questions, but the focus shifts towards quantification: the status and meaning of the existential quantifier, including its history and name, are discussed. In particular, the question of the Quinean criterion of ontological commitment, according to which we are ontologically committed to those entities that we quantify over, is critically examined, also with reference to its modern counterparts. Moreover, the possibility of so-called 'quantifier variance' is discussed, as defended by Eli Hirsch and opposed by Ted Sider, among others. Quantifier variance is the thesis that there is no single (best) quantifier meaning. The thesis is closely related to Hirsch's view that ontological debates concerning physical objects are 'merely verbal'. Finally, Kit Fine's alternative metaontological position, which attempts to undermine the importance of existence questions, is discussed.

Chapter 4: Identifying the alternatives: ontological realism, deflationism, and conventionalism

This chapter surveys various metametaphysical positions, some of which have already been discussed in previous chapters. The main contenders are ontological realism, ontological anti-realism, deflationism, and conventionalism. It will become clear that some terminological clarification is needed in order to correctly identify the various subspecies of these views. The debate concerning quantifier variance between Hirsch and Sider will be discussed again, but from a slightly different point of view. Sider's version of ontological realism will receive further attention and is considered as a case study, with reference to an example from physics.

Chapter 5: Grounding and ontological dependence

It is time to introduce some further metaphysical tools: grounding and ontological dependence. The notion of 'ground' stormed into contemporary analytic metaphysics at the beginning of the twenty-first century, but the roots of the notion go all the way to Aristotle. At its simplest, grounding may be understood as 'metaphysical explanation'. To be more precise, when some x is grounded in some y, it is usually thought that y explains x. On the face of it, grounding expresses a relation of ontological dependence. Ontological dependence is a family of relations and different versions of dependence will be discussed in some detail. The question whether grounding is indeed a version of ontological dependence or not will also be examined. The formal features of ground and some related notions as well as applications are outlined. These include causation, reduction, modality, and truthmaking.

Chapter 6: Fundamentality and levels of reality

This chapter concerns the view that reality comes with a hierarchical structure of 'levels'. This type of view has a long history and it remains very popular. Our everyday experiences as well as scientific practice seem to strongly support such a view, since *scale* is a major factor in both of them. Usually, the reference to scale becomes apparent when talking about parts and wholes – which are studied in *mereology*: we talk about subatomic

particles constituting atoms, atoms constituting molecules, and molecules constituting everything we see around us. We can express this in terms of ontological dependence, which is covered in Chapter 5: the wholes depend for their existence on their parts. Fundamentality comes in when we ask whether there is an end or a beginning to this hierarchical structure, or equivalently to the relevant chain of dependence. Much of the discussion in this chapter will concern the analysis of 'metaphysical foundationalism', which states that there is an end to the chain of dependence, and 'metaphysical infinitism', which states that chains of dependence can continue infinitely. These views are also discussed with reference to physics.

Chapter 7: The epistemology of metaphysics: *a priori* or *a posteriori*?

The epistemology of metaphysics, which is the topic of this chapter, is a broad area. The discussion starts from the *a priori* vs. *a posteriori* distinction, which turns out to be more controversial than one might have thought. Various options to clarify the distinction are considered. The bulk of the chapter deals with modal epistemology: our knowledge of possibility and necessity. This will be our case study of the epistemology of metaphysics. Much of metaphysical knowledge seems to involve modal elements, so we need an account of how we are able to acquire modal knowledge. The two main competitors here are 'modal rationalism' and 'modal empiricism'. At first glance, they seem to reflect the *a priori* vs. *a posteriori* distinction regarding the source of modal knowledge, but the situation is more complicated than that, as 'pure' *a priori* or *a posteriori* knowledge appears to be scarce. Therefore, a view according to which both types of knowledge are needed becomes somewhat attractive. Such a view and its prospects are studied.

Chapter 8: Intuitions and thought experiments in metaphysics

This chapter continues on epistemic themes. Intuitions and thought experiments are considered important sources of metaphysical knowledge, but there is much controversy surrounding them: how reliable are they as sources of evidence? One problem is that often it is not clear what is even meant by 'intuition'. This chapter examines a variety of ways to understand metaphysical intuitions and their role in metaphysical inquiry. These