

*Inimicus Plato, sed magis inimica falsitas.*

—Tarski

# Preface

No one can deny that W. V. Quine wrote many splendidly quotable (and in consequence much-quoted) sentences. Among them is the first sentence of his preface to *Set Theory and Its Logic*: ‘A preface is not, in my book, an introduction.’<sup>1</sup> I refuse, however, to be simply one more philosopher who has quoted this sentence. I will not quote it. I will *borrow* it: A preface is not, in my book, an introduction.

One of the many introductions that this Preface is not—the Introduction to *this* book—follows it.

The intellectual context of *Being: A Study in Ontology* is this: it is an historical document, a book of the nineties of the last century. I began work on *Being* in the early eighties. The chapter headings of the original plan for the book were much the same as those of the book that is in your hands (or those of the book one page of which is on a screen before you), with two exceptions: Chapter VI was added in response to a suggestion made by a reader for O.U.P., and there was originally to be a chapter called “Being and Materiality.” I had a year’s research leave (thanks to the generosity of the National Endowment for the Humanities) and eagerly started work on the book. I began with the chapter “Being and Materiality” because, at the time, that was the area in which the ideas were coming. But that chapter took on a life of its own and eventually became a book—*Material Beings*. *Material Beings* (like *An Essay on Free Will* before it) took seven or eight years to write. But I was able to do quite a lot of work (here and there, now and then) on *Being* even when the main focus of my attention was on *Material Beings*. I submitted an incomplete draft of *Being* to the Oxford University Press and in 1994 it was—conditionally, of course—accepted for publication. I took it for granted that—given the time it had taken to write *An Essay on Free Will* and *Material Beings*—I should finish the book in a few years, certainly before the end of the century.

It was not to be. The pressure of other work—I was in those days the recipient of a seemingly unending series of invitations to write papers on topics I badly wanted to write papers on—caused me again and again to put off work on *Being*, each time “for a few months.” I found myself unable to do any further work on the book if I could not devote my undivided attention to it for some considerable period of time, and no such considerable period of time ever presented itself.

<sup>1</sup> It has, for example, been quoted by John P. Burgess and Gideon Rosen in the preface to their *A Subject with No Object: Strategies for Nominalistic Interpretation of Mathematics* (Oxford: at the Clarendon Press, 1996), p. v.

Eventually my manuscript became obsolete, or at least I eventually began to think of it as obsolete. In 1994, no one to speak of was writing on the topic that today is called meta-ontology,<sup>2</sup> but, all of a sudden, at some point early in this century, it seemed that everyone was. (In 2008, Ross Cameron published a paper that contained the soon-to-be-much-quoted sentence ‘Metaontology is the new black’.) And my manuscript addressed none of that work. A cloud of metaphysicians were now writing about fundamentality and grounding, Aristotelianism vs Quineanism, easy ontology, neo-Carnapianism, Ontologese, modes of being, . . . . And none of these topics was so much as alluded to in the draft manuscript of *Being*—for, of course, when I was writing the various chapters that draft comprised, I had never heard of any of them.

By the time the new century had got well under way, whenever I happened to be in Oxford, Peter Momtchiloff, the Senior Commissioning Editor for Philosophy at O.U.P., would give me lunch, during which meal he would delicately press me for information about how work on *Being* was coming along. Unless my memory deceives me, I was on every such occasion honest enough to tell him that it was not coming along at all. During one of the more recent of these luncheons, I laid out in some detail the problem I mentioned in the preceding paragraph, and Peter suggested that I publish the book as an historical document, a creature of its time—and that I refer readers to my more recent papers for my current thoughts on ontology and meta-ontology.

And this I have done. I have, I confess, deeply revised the “nineties manuscript” of *Being* in preparation for the publication of this book. And I have written a lot of wholly new material—for the manuscript that had been submitted to Oxford in the nineties was, as I have said, incomplete. But the revisions are revisions that might have been made, and the added material is material that might have been composed, before meta-ontology became the new black.<sup>3</sup> For my current thinking about the matters addressed in this book,<sup>4</sup> the reader is directed to my collections *Existence: Essays in ontology* (Cambridge: Cambridge University Press, 2014) and *The Abstract and the Concrete*, which will be published by Oxford University

<sup>2</sup> A term I invented (or re-invented). “Meta-ontology” was the title of a paper I published in 1998, an adaptation of the then-current draft of the first chapter of *Being*. Heidegger had coined the word ‘*Metontologie*’ in the late twenties, but I did not know of Heidegger’s coinage till I was informed of it by Dr Franca d’Agostini early in the present century. Heidegger’s word is a better formation than mine, owing to the fact that ‘*μετά*’ loses its terminal vowel when prefixed to a word that begins with a vowel. I have, however, resisted adopting the word ‘metontology’, owing to worries about whether very many anglophone philosophers would recognize their old friend ‘meta-’ in its abbreviated guise. I do, however, insist on writing the word with a hyphen between the two vowels: ‘meta-ontology’. (For a discussion of Heidegger’s use of ‘*Metontologie*’, see Steven Galt Crowell, “Metaphysics, Metontology, and the End of *Being and Time*,” *Philosophy and Phenomenological Research* LX (2000), pp. 307–331.)

<sup>3</sup> I confess that this is not *quite* true. Toward the end of the final chapter there is a brief mention of “ontological grounding.”

<sup>4</sup> The essays in my 2001 Cambridge collection, *Ontology, Identity, and Modality*, are all solidly “pre-new black.”

Press. Almost nothing in these later essays contradicts anything in the present book. The rare inconsistencies between the later essays and the material in this book pertain to minor technical matters.

A reader for the Oxford University Press made two very useful suggestions. Chapter VI is the result of one of them, and the detailed Summary of the Text following the table of contents is the result of the other. The Summary is not meant to be a mechanically accurate outline of the contents of the book. In some places it verges on the impressionistic. But that is consistent with its sole purpose, which is to enable readers who have had to put the book down for a week or a month to find their way back into the argument. (The reviewer assured me that he or she—who *had* had occasionally to put the book down for a week or a month—would have found such a summary very useful.)

Chapter IV contains some comments I wrote, at Derek Parfit's request, on his defense of possibilism in a draft of Volume II of *On What Matters* (Appendix J). I am grateful to Janet Radcliffe-Richards and Jeff McMahan, Parfit's literary executors, for permission to publish what amounts to several pages of the draft of Appendix J—material that sometimes differs from the corresponding material in Appendix J in the published book. I thank Uwe Meixner and Christopher Menzel for extremely useful correspondence on possibilism and related matters.

### A Note on the Epigraph

Professor Geach has written, "...Tarski once said, *inimicus Plato, sed magis inimica falsitas*."<sup>5</sup> He gave no citation. I have been unable to verify this statement.

<sup>5</sup> *Logic Matters* (Oxford: Basil Blackwell, 1972), p. 116.



# Introduction

This book presents a meta-ontology and an ontology. An ontology is a detailed and systematic answer to “the ontological question”: ‘What is there?’ A meta-ontology is a reflective answer to the question, ‘What are we asking when we ask the ontological question and how shall we go about trying to answer it?’ Or, to use the two words as mass terms: in ontology, we ask and attempt to answer the ontological question; in meta-ontology, we attempt to understand what we are doing when we do ontology.<sup>6</sup> Chapters I and V are devoted to meta-ontology, Chapter I to the presentation of a meta-ontology, and Chapter V to consideration of its rivals. Chapters II, III, and IV are applications of the meta-ontology presented in Chapter I to questions about what there is: Are there things that do not exist?; Are there abstract objects?; Are there objects of the sort that seem to be presupposed in much of our modal reasoning: unrealized possibilities, possible worlds, possible fat men in the doorway? (Chapter VI was not a part of the original plan of the book. It is based on a suggestion of a reader for the Oxford University Press. In Chapter VI, I present a single, unified framework within which the positions defended in the earlier chapters can be placed.)

The meta-ontology presented in Chapters I and V is, so to speak, deeply Quinean. This is no accident. I did not set out to develop a meta-ontology and later discover that the one I developed happened to be identical with Quine’s. My meta-ontology is Quine’s meta-ontology (or something very much like it) because I have read what Quine has to say on the subject and have been convinced by it. The ontology presented in Chapters II, III, IV, and VI is, by contrast, deeply anti-Quinean. (It is, for example, friendly to propositions and attributes and modality *de re*, although it agrees with Quine’s views in the matter of non-existent things.) This is an accident. I did not set out to refute or disagree with Quine. I have simply

<sup>6</sup> “Then why is your subtitle not ‘A study in ontology and meta-ontology’?” Well, too long, for one thing, and too busy. But perhaps there is a lesson to be learned from ‘metaphilosophy’. In one sense of ‘philosophy’, in metaphilosophy we attempt to understand what we are doing when we do “philosophy”—and metaphilosophy is thus something outside philosophy. And yet metaphilosophy is a part of philosophy. (There is a journal called *Metaphilosophy*. I can, with a little effort, imagine a philosopher who denied that *Metaphilosophy* was a philosophical journal. By no stretch of the imagination can I imagine a librarian who did.) I would explain this apparent inconsistency by saying that the word ‘philosophy’ has wider and narrower senses—in the wider sense it includes metaphilosophy, and, in the narrower sense of ‘philosophy’, metaphilosophy is outside philosophy and examines philosophy. And, I would say, ‘ontology’ has a wide sense and a narrow sense. In the narrower sense, Chapters II, III, and IV of this book concern ontology, and Chapters I and V are about meta-ontology, the discipline that *studies* the discipline I am engaged in Chapters II, III, and IV. In the wider sense of ‘ontology’ (the sense the word has in the title of the book), all five chapters are about “ontology.”

come to different ontological conclusions from his, despite the fact that I have thought about ontological problems in the way (if I may so speak of my relationship to a philosopher who has been my teacher only through the written word) he has taught me to think about ontological problems.

I will try to give some sense of what I mean by saying that the meta-ontology I present in this book is “deeply Quinean.” But I do not mean to anticipate the detailed and technical discussion of meta-ontological questions that comprises Chapters I and V. I will simply comment on two quotations that represent meta-ontological views antithetical to Quine’s, and on one quotation that misrepresents Quine’s views. The first is from Arthur Prior’s *Objects of Thought*:

[Quine’s difficulty with such quantifications as ‘Paul believes something that Elmer does not’] seems to me to be quite unnecessary; like many other difficulties of his, it arises only through his insistence that all quantification must govern variable names. I see no reason why we should not— . . . following Ramsey—quantify our sentential variables and concoct such complexes as ‘For some  $p$ , Paul believes that  $p$  and Elmer does not believe that  $p$ ’, without thereby being ‘ontologically committed’ to the view that there are objects which sentences name. (I doubt whether any dogma, even of empiricism, has ever been quite so muddling as the dogma that to be is to be a value of a bound variable.)<sup>7</sup>

The burden—or a good sixty percent of the burden—of Chapters I and V could be summed up by saying that the ideas on display in this passage are radically defective.<sup>8</sup> In this passage—I say—, a philosopher accuses another philosopher of being wrong-headed and muddled on just those points on which he himself is wrong-headed and muddled and his target exceptionally insightful and clear-minded. I will be particularly concerned to commend Quine for “his insistence that all quantification must govern variable names” (that is, must govern variables that occupy nominal positions). More exactly, I will commend Quine for his insistence that there can be no such thing as a variable that does not occupy a nominal position—for it’s not as if Quine conceded that there *were*, for example, sentential variables but held that, for some reason, quantification couldn’t govern them.

In my view (and Quine’s), “complexes” such as ‘For some  $p$ , Paul believes that  $p$  and Elmer does not believe that  $p$ ’ are concocted indeed—concocted as nineteenth-century patent medicines were concocted. All the ink that has been spilled in defense of such concoctions has, in my view, produced no more real content than can be found on the fancy labels on the bottles in which those

<sup>7</sup> A. N. Prior, P. T. Geach, and Anthony Kenny, *Objects of Thought* (Oxford: at the Clarendon Press, 1971), p. 101.

<sup>8</sup> See Section 3 of Chapter V.

medicines were dispensed. I mean this accusation to apply not only to sentential variables but to “predicative variables” (‘For some  $F$ ,  $F$  Paul and it is not the case that  $F$  Elmer’) and to all other sorts of variables that are supposed to occupy non-nominal positions. If, for example, some philosopher has concocted “complexes” containing “sentential-connective variables” (‘For some  $C$ , Paul is taller than Elmer  $C$  Elmer is shorter than Paul’) my accusation applies to that philosopher as well.

I turn now to my second quotation. Its author is the late Ernest Gellner. (I am sorry that the first two of my targets are among the defenseless dead. If I knew of living philosophers who had said things equally suited to the polemical purposes of this Introduction, I would instead quote them.<sup>9</sup>) In an article written in the mid-seventies, Gellner gave a very nice description of Quine’s meta-ontology, and, having paused briefly to identify himself as a nominalist, went on to say

The dreadful thing is, I haven’t even tried to be a serious, card-carrying nominalist. I have never tried to eliminate “quantification” over abstract objects from my discourse. I shamelessly “quantify over” abstractions *and* deny their existence! I do not try to put what I say into canonical notation, and do not care what the notation looks like if someone else does it for me, and do not feel in the very least bound by whatever ontic commitments such a translation may disclose.<sup>10</sup>

An example will make it clear what Gellner is being so intransigent about. Suppose he has been heard to say things like, ‘There is something that Paul and Silas both believe and Elmer does not believe’. And suppose he has also been heard to say that there are no abstract objects. Suppose Miriam, who has heard him say both these things, says to him,

Gellner, you’ve contradicted yourself. You’ve said, “There is something that Paul and Silas both believe and Elmer does not believe. But you also say that there are no abstract objects. And if there is something that Paul and Silas both believe, this “something” must be an abstract object. (‘Proposition’ is the word customarily used for abstract objects of this sort, but my point doesn’t depend on what we choose to call them.)

<sup>9</sup> Robert M. Adams’s *What Is, and What Is in Itself* (Oxford: Oxford University Press, 2021) came into my hands too late to have any significant effect on the text of this book. (And it is not ruled out by my decision to publish the present book as “an historical document,” for much of Adams’s book does not presuppose any acquaintance with twenty-first-century meta-ontology.) And my meta-ontological disagreements with Adams are far more widespread and profound even than my meta-ontological disagreements with Prior and Gellner. It’s a superb book—but I *do* want to take a take a Sharpie and place a negation sign before each sentence it contains.

<sup>10</sup> Ernest Gellner, “The Last Pragmatist, or the Behaviourist Platonist,” *Spectacles and Predicaments: Social Theory* (Cambridge: Cambridge University Press, 1979), pp. 199–208. The quoted passage is on p. 203.



There are a number of ways Gellner—or any nominalist, anyone who denies the existence of abstract objects—might reply to Miriam’s argument.

(1) There is the Prior line

You are supposing that all quantification must be into nominal positions. You are attempting to read my sentence ‘Paul and Silas believe something that Elmer does not’ this way: ‘For some  $x$ , Paul believes  $x$  and Silas believes  $x$  and Elmer does not believe  $x$ ’. I agree that it is hard to see how there could be anything acceptable to a nominalist like myself that satisfied the open sentence ‘Paul believes  $x$  and Silas believes  $x$  and Elmer does not believe  $x$ ’. But don’t read my sentence that way. Read it this way: ‘For some  $p$ , Paul believes that  $p$  and Silas believes that  $p$  and Elmer does not believe that  $p$ ’. (Note the ‘that’s’: ‘ $p$ ’ is a sentential, not a nominal, variable.) Without going into the question of the sort of semantical analysis I would provide for sentential quantification, I will say for the record that the ‘For some  $p$ ’ sentence can be true even if nothing satisfies ‘Paul believes  $x$  and Silas believes  $x$  and Elmer does not believe  $x$ ’—as, in my view, nothing does.

(2) There is the “paraphrastic” reply

I agree that what I have said has the appearance of a contradiction. But the appearance is superficial, and—I’m sure you will agree—an apparent contradiction need not be a real contradiction. (A Copernican might utter both these sentences: ‘It was cooler in the garden after the sun had moved behind the elms’ and ‘The sun does not move’—an apparent, not a real, contradiction.) Don’t think I’m going to cheat like Prior. Quantification is quantification—that is, there’s only one kind. But I will show you how to read my sentence ‘Paul and Silas believe something that Elmer does not’—and how to account for the fact that it follows logically from what I assert when I utter this sentence both that there is something that Paul and Silas both believe, and there is something that Elmer doesn’t believe that other people do—and I will do these things in a way that doesn’t violate my nominalistic scruples. That is, I’ll show you how to account for *all* the logical relations that hold among *all* the general sentences (sentences whose grammatical structure turns on the presence in them of ‘all’ and ‘some’) I accept that concern what people believe (accept, assent to, assert, think, deny...). In doing these things, moreover, I’ll make use of the only kind of variables there are, nominal variables. And, I promise you, my effort will *not* have the following consequence: for some one-place open sentence  $F$ , the existential generalization on  $F$  is logically deducible from the sentences I endorse, and  $F$  can be satisfied only by objects

unacceptable to a nominalist. [The nominalist then proceeds to do what has been promised. I can't go on with (2) because I don't know how to do it.]

(3) There is the response of faith

I agree that what I have said has the appearance of a contradiction. I'm convinced, however, that this contradiction is apparent, not real. I'm afraid I don't have any way to show this, but nominalism seems obviously right, and it's evident that people often say true things by uttering sentences like 'Paul and Silas believe something that Elmer does not believe'. So I'm inclined to think that the two things I said are consistent just because I'm inclined to think they're both true. (And it does seem awfully odd to me to suppose that by making a simple, everyday assertion about the beliefs of my acquaintances I'm tacitly endorsing a metaphysical theory.) As to how the contradiction is to be resolved, who knows—maybe Prior was right about sentential quantification; or maybe someone can do what that fellow in (2) above claimed to be able to do. (Or if no one can, maybe that's just because no one is clever enough or no one has yet hit on the right idea; it is certainly not implausible to think that there are soluble problems that no one can figure out the solution to—or has yet been able to figure out the solution to.) And why should *I* expect to be able to?—I'm not a logician or a metaphysician. I'm more a political philosopher, really, though I once did some work on Locke's theory of perception. All this ontological stuff is not really my line.

I have said something about why I reject the first reply. The second reply—well, it's nice work if you can get it, but I don't think you can get it, not even if you try very hard indeed. (We shall look at some attempts to get it in Chapter III.) I don't really have any hard objection to the third—provided the philosopher who makes this reply means what he says about his amateur status in ontology. But what would Gellner's reply be? I think none of these, although the question is hard to answer because Gellner never considered anything like Miriam's argument. Miriam's argument is formulated in "ordinary language," or something very close to it, and Gellner assumes that Quine's arguments essentially involve what Quine calls "canonical notation." This assumption is explicit in what Gellner says immediately after the paragraph I have quoted:

Why am I so totally lacking in logical [shame]? Why am I so frivolously lighthearted? The answer is of course that I believe neither in the existence of any canonical notation, nor in the possibility of reading ontic commitments from it. In this I am not eccentric but, on the contrary, a follower of local conventional wisdom. Another aspect of that recent conventional wisdom, the idea that ordinary language itself constitutes a new kind of canonical notation, I do not accept for one moment; but the negative part, the repudiation of the pursuit of an

invented and authoritative canonical notation, strikes me as cogent. It is Quine who is unusual, in continuing, albeit with self-conscious irony, to talk of a canonical notation with ontic import, and to suppose that one special notation will throw into relief the relationship between theory and reality.

In this passage, Gellner places far too much emphasis on Quine's talk of "canonical notation." The full phrase, let us remember, is "the canonical notation of quantification." Gellner had earlier said, "I shamelessly 'quantify over' abstractions *and* deny their existence! I do not try to put what I say into canonical notation . . ." Gellner is right when he says that he quantifies over abstractions, and he is no doubt telling the truth when he informs us that he never tries to put what he says into canonical notation—that is, into the canonical notation of quantification. It would seem to follow, and it does follow, that it is possible to quantify over abstractions (and dogs and neutrons as well) without using the canonical notation of quantification. (After all, we can do arithmetic without using the canonical notation of arithmetic. Alice calculated, without using any notation at all, that one had three hundred and sixty-four unbirthdays in every three-hundred-and-sixty-five-day year; Humpty Dumpty then requested that she put her calculation into the canonical notation of arithmetic.)

Quine's appeal to the canonical notation of quantification is an important aspect of his meta-ontology, but it is not central to it. What is central is quantification. The canonical notation of quantification is no more than an especially perspicuous notational device for representing quantification; it is not the *sine qua non* of quantification. One can quantify without it, and Gellner, like the rest of us, quantified all the time. Like speaking prose, quantifying is something we have all been doing for most of our lives. Quantifying, indeed, is an essential part of speaking prose—and you can't get away from it in poetry, either.<sup>11</sup> M. Jourdain was surprised to learn from a professor of philosophy that for more than forty years he had been speaking prose without knowing it. Gellner did not need to learn from a Harvard professor of philosophy that he had been quantifying for a comparable period: he knew it: "I shamelessly 'quantify over' abstractions." But to say, "I shamelessly 'quantify over' abstractions *and* deny their existence!" is to say, "I shamelessly affirm the existence of abstractions *and* deny their existence!". He concedes, therefore, in a general way the presence of at least apparent self-contradiction in his discourse; Miriam has pointed to a particular case. And we do not need to appeal to the notion of a canonical notation of quantification to make this point. The appeal to canonical notation has only this function in Quine's meta-ontology: the canonical notation is a sharpening of ordinary quantificational devices, and, if one both affirms and denies the existence of something,

<sup>11</sup> For example: "Lives of great men all remind us/As their pages o'er we turn/Departing, not to leave behind us/Letters that we ought to burn."

putting one's discourse into the canonical notation of quantification will invariably bring this contradiction into sharp focus—or uncover it, for it may be hidden. I conclude that Gellner's disapprobation of “an invented and authoritative canonical notation” is not to the point, and that those who both quantify over abstractions and deny their existence at least *prima facie* contradict themselves and had better have available some response to the person who points this out—even if it is only the response of faith.<sup>12</sup>

My third and final quotation is from Jonathan Schaffer. I confess it is from a period later in the recent history of analytical metaphysics than the period to which the present “historical document” (see the Preface) belongs. But I am not here concerned with “fundamentality and grounding,” the topic that Schaffer is about to introduce his readers to.<sup>13</sup> I am not concerned with the view that Schaffer will go on to oppose to “the Quinean view” but only with his statement of the Quinean view. And that statement (I maintain) is not a statement of Quine's view at all, and has no basis in anything Quine has written. And yet, or so I judge, the statement of “the Quinean view” that I am about to quote has been widely accepted and has never been challenged. (The quotation consists of two passages from Schaffer's “On What Grounds What.”<sup>14</sup> The first passage comprises the first two sentences of the essay, and the second occurs on the second page (348) of the essay.)

On the now dominant Quinean view, metaphysics is about what there is. Metaphysics so conceived is concerned with such questions as whether properties exist, whether meanings exist, and whether numbers exist.

According to Quine, metaphysics addresses the question of “What is there?”<sup>15</sup> He notes that the question has a trivial answer (‘everything’), but adds “there remains room for disagreement over cases.”<sup>16</sup> Among the cases he mentions are properties, meanings, and numbers. Thus Quine sees metaphysics as addressing the question of what exists, by addressing questions such as whether properties, meanings, and numbers exist. This should be familiar.

To be more precise about the Quinean view, it will prove useful to begin by distinguishing between the *task* and the *method* of metaphysics. Thus:

*Quinean task:* The task of metaphysics is to say what exists

<sup>12</sup> What does it mean to “put one's discourse into the canonical notation of quantification”? This is a subtle question. Or, better, it is, in the rhetorician's sense, a complex question. I shall attempt to disentangle its complexities in Chapter I.

<sup>13</sup> But, as I said in the Preface, I will have just a bit to say about grounding in the last few pages of the book.

<sup>14</sup> In David Chalmers, David Manley, and Ryan Wasserman (eds.) *Metametaphysics: New Essays on the Foundations of Ontology* (Oxford: at the Clarendon Press, 2009), pp. 347–383.

<sup>15</sup> At this point, Schaffer cites the first page of Quine's “On What There Is.”

<sup>16</sup> At this point, there is a second citation of the first page of “On What There Is.”

...

*Quinean method:* The method of metaphysics is to extract existence commitments from our best theory.

And what supports this statement of Quine's view of metaphysics? Only the citation of the opening remarks of "On What There Is." The odd thing is, neither the word 'metaphysics' nor any word derived from 'metaphysics' ('metaphysical', 'metaphysician' ...) occurs in those remarks. (The first sentence of "On What There Is" is not, 'A curious thing about the metaphysical question is its simplicity'.) In fact, the word 'metaphysics' occurs only twice in "On What There Is," and both occurrences are in the same sentence (a comment on McX's argument that the universal redness must exist, since there is obviously something that red houses, red roses, and red sunsets have in common, and 'redness' is simply the name we have chosen for this "something"):

This, I think, is characteristic of metaphysics, or at least of that part of metaphysics called ontology: one who regards a statement on this subject as true at all must regard it as trivially true.<sup>17</sup>

Instead of saying,

On the now dominant Quinean view, metaphysics is about what there is. Metaphysics so conceived is concerned with such questions as whether properties exist, whether meanings exist, and whether numbers exist,

Schaffer ought therefore to have said,

On the now dominant Quinean view, ontology is about what there is. Ontology so conceived is concerned with such questions as whether properties exist, whether meanings exist, and whether numbers exist.

Of course, that wouldn't have been a very exciting thesis. (Shaffer's position entails that "ontology so conceived" would be a very boring part of philosophy indeed, owing to the fact that the answer to questions of the form "Do Xs exist?" is generally "Yes.") True, that not-very-exciting thesis is not beyond dispute. Some might want to apply the word 'ontology' to the study devoted to the question of the nature (or meaning or proper analysis) of being and existence—to, roughly, what I call 'meta-ontology'. But a dispute about whether we should use 'ontology' as a name for the part of philosophy that attempts to answer "the ontological

<sup>17</sup> "On What There Is," in W. V. O. Quine, *From a Logical Point of View* (Cambridge, MA: Harvard University Press, 1953), pp. 1–19. The quoted sentence occurs on p. 10.

question” or as a name for the part of philosophy that attempts to answer the question, ‘What is being?’ would be a profitless verbal dispute—on a par with a dispute about whether ‘realism’ should be a name the philosophical position opposed to nominalism or a name for the philosophical position opposed to idealism or a name for the philosophical position opposed to (appropriately enough) anti-realism. No, the sense in which Quine uses the word ‘ontology’ in the sentence quoted above is beyond criticism.<sup>18</sup> And if the word is used in that sense, the sentence ‘Ontology is about what there is’ is a tautology.

In sum, Quine has said nothing to support the thesis that he regards metaphysics as an investigation into what there is. He has, indeed, said almost nothing about metaphysics.

These three quotations, and my animadversions upon them (as Quine might have described the above remarks) were intended to “give some sense of what I mean by saying that the meta-ontology I present in this book is ‘deeply Quinean.’” For a fuller statement of these views, see Chapters I, V, and VI—and the applications of these views to various problems about what there is, particularly in Chapters II, III, and IV.

<sup>18</sup> Quine uses, and, following him, most present-day analytical philosophers use, the word ‘ontology’ both as a mass term and as a count noun: “Quine’s contributions to ontology are considerable” vs “A nominalistic ontology is an ontology that does not countenance sets or any other species of abstract objects.” In the quoted sentence, ‘ontology’ has its “mass term” sense.



# Summary of the Text

This Summary is designed for a specific purpose, a statement of which can be found in the Preface.

*Preface* This book is in a certain sense an historical document. The story of its composition and publication.

*Introduction* This book contains a presentation and defense of a Quinean meta-ontology and applications of this meta-ontology to various questions of ontology. An introduction to the Quinean meta-ontology in the form to a discussion of two attacks on it (by Arthur Prior and Ernest Gellner). A discussion of Jonathan Schaffer's thesis that, according to Quine, "the task of metaphysics is to say what exists."

## Chapter I Being and Existence

1. 'Ontology' in the existential-phenomenological tradition vs 'ontology' in the analytical tradition. This book is solidly within the analytical tradition. Ontology and meta-ontology. The meta-ontology of this book is Quinean. The Quinean meta-ontology comprises five theses.

2. The first thesis: being is not an activity ("like breathing, only quieter"). The language of the (as yet undiscovered) Martians has no ontological vocabulary (Martian atheists say, "Everything is not God"). If there is an activity called being, the Martians can't refer to it and do not know about it. Is there something ("being") that you and I know about and the Martians don't? Is the Martian language a kind of Newspeak, designed to keep certain thoughts unthinkable? The second thesis: there is no important distinction to be made between being and existence. A challenge: "If you think there are things that do not exist, give me an example of one." The right response to your example will be either "That does too exist" or "There is no such thing as that." The absurdity of "It's wrong to say that there is no fountain of youth. (Ponce was searching for *something*—and what he was searching for was the fountain of youth. Of course it doesn't exist and never did.)"

The absurdity of "Exist" is applied mainly to physical objects, but "there is" is more general' is almost as great: witness 'conditions for a durable agreement do not yet exist'.

The third thesis: being is (and hence existence is) univocal. To say that there are Xs or that Xs exist is to say that the number of Xs is greater than 0; or perhaps to



say that not everything is not an  $X$ . In either case, both statements are univocal because ‘the number of —s is greater than 0’ and ‘not everything is not a(n)’ are both univocal. Ryle’s arguments for the equivocacy of existence are unconvincing. Putnam’s arguments for the conclusion that, e.g., ‘the fusion of the Nelson Column and the Eiffel Tower exists’ is false on one meaning of ‘exists’, but true on another, are likewise unconvincing.

3. The fourth thesis: the single sense of ‘there is’ and ‘exists’ is adequately captured by the existential quantifier of formal logic. The nature of quantifiers and variables. Variables are essentially third-person-singular pronouns, each occurrence of which is tagged in such a way as to make its antecedent—an occurrence of ‘something’ or ‘everything’—clear. The occurrences of ‘something’ and ‘everything’ that are the antecedents of variables are the quantifiers. According to this understanding of quantifiers and variables, each of the two of the following sentences that contains ‘ $\forall$ ’ and ‘ $\exists$ ’ is an abbreviation of the sentence that follows it.

$\forall x(x \text{ is a person} \rightarrow \exists y(y \text{ is a person} \ \& \ x \text{ loves } y))$

Everything <sub>$x$</sub>  is such that ( $it_x$  is a person  $\rightarrow$  something <sub>$y$</sub>  is such that ( $it_y$  is a person  $\&$   $it_x$  loves  $it_y$ ))

$\forall x(x \text{ is a person} \rightarrow \exists y(y \text{ is a person} \ \& \ y \text{ loves } x))$

Everything <sub>$x$</sub>  is such that ( $it_x$  is a person  $\rightarrow$  something <sub>$y$</sub>  is such that ( $it_y$  is a person  $\&$   $it_y$  loves  $it_x$ )).

Two implications of these theses: The idea that the real use of quantifiers requires the specification of a set of objects to be their “domain” is without ground; sorted variables are not primitive; they may be defined in terms of ordinary variables.

4. The fifth thesis concerns the application of “Quine’s criterion of ontological commitment”—that is, the strategy Quine encourages philosophers to follow to get their fellow philosophers to make their ontological commitments clear. To discover a philosopher’s ontological commitments, one should take sentences that philosopher accepts, and, by whatever dialectical devices one can muster, persuade the philosopher progressively to introduce more and more of the formal apparatus of quantification into those sentences. That is, one should attempt to persuade him or her to replace devices and constructions belonging to ordinary English with devices and constructions belonging to “the canonical notation of quantification.” If, at a certain point in this procedure, it transpires that the existential generalization on a certain open sentence  $F$  can be formally deduced from the sentences the philosopher accepts, and if  $F$  could be satisfied only by  $X$ s, that philosopher has been shown that the sentences he or she accepts, and the ways of introducing quantifiers and variables into those sentences that he or she has endorsed, formally commit those who endorse them to the existence of  $X$ s.

## Chapter II Being and Non-Being

1. Consideration of various possible answers to a challenge issued in Section 2 of Chapter I: If you think there are things that do not exist, give me an example of one. The right response to your example will be either “That does too exist” or “There is no such thing as that.” Only fictional characters (or, more generally, fictional objects: in addition to fictional people, such things as fictional schools and cities and rivers) present those who deny that there are non-existent objects with a difficult reply to this challenge. Our rejoinder to the reply “Mr Pickwick and Tom Sawyer and Elizabeth Bennett do not exist” will be, “They do too exist.”

2. Meinong and fictional objects. There seem to be many truths like these:

The Cheshire Cat spoke to Alice and there is no such thing as the Cheshire Cat  
Pegasus is the winged horse captured by Bellerophon and there is no such thing as Pegasus.

How can the general truth of which these two example are instances be stated? ‘There are subject-predicate sentences such that the sentences formed by writing one of them and then writing “and there is no such thing as” and then writing its subject-term are truths’ will not do because it is a sentence about linguistic items and the semantical predicate ‘are truths’, and the “Cheshire Cat” and “Pegasus” sentences are not about linguistic items and contain no semantical predicates. Meinong suggested ‘There are things of which it is true that there are no such things’. But this seems to be equivalent to ‘ $\exists x \sim \exists y y = x$ ’, which is the denial of a theorem of quantifier logic. (Anything follows from the denial of a theorem of logic, but one need not appeal to that fact to see that ‘ $\exists x x \neq x$ ’ is immediately deducible from ‘ $\exists x \sim \exists y y = x$ ’. This consequence can be avoided only by assuming that there are two “existential” (or “particular”) quantifiers. No one has been able to discover a way to state Meinong’s thesis that does not (at least apparently) have self-contradictory consequences.

3. Discourse about fiction seems to provide support for Meinong’s doctrine of *Außersein*—so to call the doctrine that objects of thought need have no being of any kind—because sentences like ‘There are fictional characters that appear in more than one novel’ *seem* both to be true and to imply that there are fictional characters. But that appearance could be reality only if the words ‘there are’ express a kind of quantification that goes beyond being. And, although Meinongians may understand this idea, it makes no sense to *me*. The Meinongian says,

$\sim \forall x \sim x$  is a unicorn,

and I cannot see how that statement could be anything but false. Neo-Meinongians do not require a kind of quantification that goes beyond being, but only a kind that goes beyond existence. But what do they mean by ‘existence’ and ‘exists’? It seems evident to me that ‘ $x$  exists’ means ‘ $\sim \forall y y \neq x$ ’—or at least evident that the two expressions differ in meaning no more than do ‘All Greeks are mortal’ and ‘There are no immortal Greeks.’ This is incompatible with the neo-Meinongian understanding of ‘exist’, an understanding that has been denied me.

4. Suppose that one has become convinced that ‘ $\exists x x$  is a fictional character’ is a consequence of many true statements that are made in discussions of fictional works, and that one rejects the possibility of both quantification beyond being and quantification beyond existence. It seems that one must then accept the existence of fictional characters. But there are two powerful objections to the thesis that fictional characters exist:

If there are fictional characters, then there are fictional characters who are (to take one example among many) witches (in virtue of works like John Updike’s *The Witches of Eastwick*), and there are no witches.

Fictional characters are paradigm cases of things that do not exist.

The answer to the first objection is that in discourse about fiction, we use the same words to express two different relations that fictional characters bear to properties. If we call these relations ‘having’ and ‘holding’, we may say that a “character who is a witch” *has* properties like these:

- being a fictional character
- being first introduced in Chapter II
- being also a character in another novel by the same author
- being played in the film adaptation of the novel by Susan Sarandon

and *holds* properties like these:

- being a woman
- having a father
- being a divorcée
- being a witch.

The word ‘having’ was chosen for its intrinsic meaning: the properties a fictional character “has” are exactly those that the character has. The word ‘hold’ in this context has no intrinsic meaning; it was chosen simply because ‘to have and to hold’ is a familiar phrase. It must be defined—and it is defined by

discussion of particular cases: “Well, consider, Jane Spofford. She doesn’t have the property ‘being a witch’—for the very good reason that nothing does. Of course, there are lots of properties she doesn’t have: she isn’t an orc, and she isn’t a neutron star and she isn’t the Postmaster General of New Zealand. Among all the properties she does not have, she is obviously much more closely connected with the properties ‘being a woman’, ‘having a father’, ‘being a divorcée’, and ‘being a witch’ than she is with ‘being an orc’, etc. ‘Holding’ is simply a more or less arbitrary name for the relation that constitutes her closer connection with those properties. (If a fictional character holds a certain property *F*, that character *has* the property of holding the property *F*.) And—incidentally—we can refer to Jane Spofford as ‘Jane Spofford’ in discourse about fiction because we have adopted a convention to the effect that if a fictional character holds the property of having the name *N*, then *N* refers to him or her in fictional discourse. A parallel convention governs reference to fictional characters by means of gendered pronouns.”

As to the second objection, it is by no means clear that fictional characters don’t exist. If someone said, “Sherlock Holmes doesn’t exist. He’s a literary myth. Conan Doyle never created any such character,” that person would say something false. But sentences like “Sherlock Holmes does not exist” have their uses. If someone said, “Only Sherlock Holmes could solve this case, and unfortunately, he doesn’t exist,” that speaker would be using ‘Sherlock Holmes doesn’t exist’ to express the proposition that no one *has* all (or perhaps even very many of) the most salient of the properties that Sherlock Holmes holds. And if someone said, “Sherlock Holmes doesn’t exist. He’s only a chap in a story,” *that* speaker would be using ‘Sherlock Holmes’ to express the proposition that our use of the name ‘Sherlock Holmes’ is not grounded in one human being’s having conferred that name on another, but is rather grounded in the fact that a certain fictional character holds the property of being named ‘Sherlock Holmes’.

5. A *non-Meinongian* theory of fictional characters affirms (1) that fictional characters exist or have being, (2) that the use of the copula in fictional discourse is ambiguous: sometimes it functions as a true copula, sometimes to express the relation I call holding or something very much like it. Other non-Meinongian theories of fictional characters are those of Kripke, Wolterstorff, and Thomasson. Kripke’s theory is essentially the same as mine. Wolterstorff’s and Thomasson’s theories are both consistent with mine, but each of them is inconsistent with the other—owing to the fact that both philosophers have said more than I care to say about the metaphysics of characters.

6. What has been said about fiction can easily be extended to apply to legend and myth.

7. Fiction (and legend and myth) provide no effective responses to the challenge, “If you think there are things that do not exist, give me an example of one.” For the appropriate rejoinder to the response “Tom Sawyer” (or to the response “William Tell” or to the response “the Phoenix”) is “that does too exist!”

There is no effective reply to the *reductio*, “There are things that do not exist; therefore,  $\exists x \sim \exists y y = x$ ; therefore,  $\exists x x \neq x$ .”

### Chapter III Being and Abstraction

1. The problem of universals has become the problem of abstract objects. What ‘abstract object’ means is a difficult question. ‘Abstract idea’ is a much older phrase than ‘abstract object’. It was once supposed that abstract ideas were formed by “abstraction,” by “drawing away,” by stripping “properties” from the “concrete” ideas supplied by sensation. (‘Abstractus’ is the past participle of *abstrahere*, to draw off.) Perhaps properties are called ‘abstract’ because of this role that they play in the process of abstraction. As for ‘object’, in the phrase ‘abstract object’ it is being used as the most general count noun—a count noun that applies equally to attributes and propositions and numbers on the one hand and to artifacts and living things and celestial bodies on the other.

2. Propositions and relations and numbers play no part in the formation of abstract ideas. Why then do we call them ‘abstract’? Presumably because we recognize some sort of ontological affinity between those objects and properties.

Here is a list of names and general terms such that anything that is denoted by these names or falls under these terms—if anything does—is a concrete object: the Eiffel Tower, artifacts, the present king of France, rocks, lions, Uranus (god or planet), the golden mountain, elves, Descartes’s soul, angels, God.

Here is a list of names and general terms such that anything that is denoted by these names or falls under these terms—if anything does—is an abstract object: the real line, properties, relations, 1 divided by 0, propositions, sets, novels (as opposed to tangible copies of novels), the color of the eyes of the present king of France, the General Theory of Relativity, kinds, the mixolydian mode.

Even those philosophers who rightly insist that elves and the ratio of 1 to 0 do not exist will probably judge that ‘elves’ and ‘1 divided by 0’ have both been included in the right list—and so for all the other words and phrases in the two lists. This uniformity of judgment among philosophers concerning placement of words and phrases in one or the other of the two lists strongly suggests that philosophers mean something by the two words and mean pretty much the same thing by them. But what would that meaning be?

If we take universals as our paradigmatic abstract objects, we might say that an abstract object is a thing that has instances. But that proposal does not fit sets or propositions well. And what of uninstantiated properties? What of impossible properties—properties that not only do not but *cannot* have instances?

Might abstract objects be things that are not in space and time, or things that exist necessarily? Either suggestion threatens to place ‘God’ in the same list as ‘17’ and ‘the mixolydian mode’ and ‘1 divided by 0’. And ‘God’ should not go in that

list because it purports to denote a being who has causal powers. Moreover, some philosophers would say that various abstract objects exist contingently—{Quine, Goodman}, say, or the proposition that Socrates taught Plato.

Is it, then, that the meaning of ‘abstract object’ is simply ‘thing without causal powers’? It may well be that something is an abstract object if and only if it lacks causal powers, but it may well be that something is a word if and only if it has a spelling. It seems that a proper understanding of ‘abstract object’ ought to explain *why* abstract objects and only they lack causal powers.

In the end, no satisfactory explicit, formal definition of ‘abstract object’ is available. Nevertheless, “abstract object” and the opposed “concrete object” seem to be concepts that we have. Those who affirm the existence of abstract objects will say that propositions and numbers are abstract objects, and those who deny the existence of abstract objects will say that if there *were* propositions and numbers they *would* be abstract objects. And, of course, everyone believes that if there were unicorns or elves they would be concrete objects.

Let us turn to the question why some philosophers deny and some affirm the existence of abstract objects. An examination of this question—interesting an important in its own right—may also shed some light on the question of the meaning of ‘abstract object’.

3. If *platonism* is the thesis that there are abstract objects, it would be philosophically desirable to accept only philosophical positions that do not require their adherents to affirm the existence of abstract objects. For to affirm platonism is to affirm that objects fall into two mutually exclusive kinds, each radically different from the other. And, by a certain measure, we know vastly more about some of the objects in the kind to which we ourselves belong than we could ever know about any of the members of the other. Unfortunately, this desirable end, like so many other desirable ends, is unrealizable—for we must affirm the existence of properties if we are to say all the things we need to say.

4. We certainly *do* affirm the existence of properties, although generally only tacitly.

That is, when we speak and think we endorse certain propositions, and those propositions entail the existence of properties. For example, quantificational analysis shows that ‘There are anatomical characteristics’ is deducible from ‘Every spider shares certain anatomical characteristics with every insect’ and ‘There are spiders and insects’. And if that is so, platonists have four options (besides embracing a contradiction): (i) To become platonists; (ii) to deny the propositions expressed by the two ‘spider’-‘insect’ sentences; (iii) to attempt to show that it does not follow from those two propositions that anatomical characteristics exist; (iv) to concede that the existence of anatomical characteristics is *apparently* deducible from the ‘spider’-‘insect’ sentences, but to insist, without argument, that the appearance of deducibility is mere appearance and that there is a logical flaw in the claimed deduction. By far the most appealing of these options

is (iii). A platonist who took this option would proceed to offer *nominalistically acceptable paraphrases* of “useful, everyday” sentences that apparently implied the existence of properties, paraphrases that did not even apparently imply the existence of properties—and which did not imply the existence of any other objects whose existence would be inconsistent with nominalism (Fregean concepts, for example, or sets). But this does not seem to be possible—at least not if the paraphrases satisfy this constraint: a paraphrase must not leave us without an account of the validity of any obviously valid argument.

What has been said has some points of contact with the so-called Quine-Putnam indispensability argument. But, unlike that argument, it has nothing to do with the supposed indispensability to science of quantification over mathematical objects, and its conclusion is not, strictly speaking, that properties exist, but rather that frequent reference to and quantification over properties is an indispensable component of our thought and discourse.

5. If we affirm the existence of properties, we ought to have a theory of properties—a specification of the *properties* of properties. Our argument for the conclusion that frequent reference to and quantification over properties is an indispensable component of our thought and discourse does not tell us much about their nature. It tells us that analysis of our thought and discourse shows that we tacitly assert the existence of things that play “the property role,” but it tells us little if anything about what they are like. Nor does it seem possible to say much about what they are like. I know of only one philosopher who has clearly and meaningfully specified the nature of the things that play the property role: properties are sets of possible individuals.

6. For Lewis, the property “being a pig” is the set of all possible pigs, all pigs, actual and non-actual—a non-actual pig being a pig whose home is at no place shown on our maps and which exists at no dates that are to be found on our calendars. But there is no reason to think that there are such things, and there is no reason to suppose that, if there are, the existence of such remarkable beasts would have any important connections with modality. One might, of course, agree with Lewis’s statement that the property of being a pig is the set of all possible pigs, and agree, too, with his conviction that those pigs that we ordinarily think of as “all pigs” are but a minuscule subset of the set of pigs—and yet disagree with his statement that the vastly many pigs that are not in that subset are the pigs that are not spatio-temporally related to us. A Meinongian might say that they are the non-existent pigs, and identify the property of being a pig with the set of all pigs: existent pigs, merely possible pigs, even impossible pigs. But nothing could constitute a greater departure from the Quinean meta-ontology than Meinongianism.

7. I propose to identify the objects that play the property role with assertibles, with things that can be said.

*Saturated* assertibles (or propositions) are things that can be said, full stop: that Chicago has a population of over two million, that no orchid has ever filed an income tax return . . . .

Properties are *unsaturated* assertibles, that is, things that can be said *of* things: that *it* has a population of over two million, that *it* has never filed an income tax return, . . . . Things that can be said (full stop) could also be called things that are true or false. Things that can be said of things could also be called things that are true or false of things.

There seem to be things that can be said of things. We quantify over them when we say things like ‘All the negative things you’ve said about Oxford are perfectly true, but don’t you see that they’re equally true of Cambridge?’ There are, of course, “Russellian” difficulties that attend the idea of an unsaturated assertible. For if there are things that can be said of things, there are things that can be said of things that can be said of things. One of them is *that it can’t be said truly of itself*. It seems that if Alice says, “*That it is white* can’t be said truly of itself,” and Bertram says, “*That it has a population of over two million* can’t be said truly of itself,” then—if there are unsaturated assertibles at all—there is an unsaturated assertible that Alice said of *that it is white* and Bertram said of *that it has a population of over two million*. But as a familiar argument shows, if there is such an assertible, it both can and cannot be said truly of itself. There are ways of dealing with the question, “Which open sentences correspond to sets?” I propose that one or the other of these ways be adapted to provide a way of dealing with the question, “Which open sentences correspond to unsaturated assertibles?”

Perhaps there would not be much opposition to the thesis that—granted that there are such things—unsaturated assertibles could play the property role. But are they properties? I make no stronger proposal than this: I invite my readers to *identify* properties with unsaturated assertibles; but, if they are unwilling to do that, then I invite them to abandon reference to and quantification over properties, and to adopt reference to and quantification over unsaturated assertibles in their place.

If properties are indeed assertibles, then a wide range of things various philosophers have said about properties make no sense.

If properties are assertibles, then properties cannot meaningfully be said to be constituents of concrete objects.

If properties are assertibles, it makes no sense to say that properties are more basic or more fundamental than their bearers—or that their bearers are more basic or fundamental than they.

If properties are assertibles, it makes no sense to speak either of objects as bundles of attributes or as bare particulars.

If properties are assertibles, it makes no sense to speak of perceiving them.

There are, moreover, historically important theses about properties that are obviously false if properties are assertibles.



If properties are assertibles, then existence is a property—for one of the things one can say of something is that it exists. (If this were not so, one could not say, “Kant exists, but he might not have.”)

If properties are assertibles, there are haecceities, although perhaps not of a kind that would have interested Scotus. When Socrates says of the figure approaching through the mist, “It is Plato who approaches us,” he ascribes an haecceity to it.

If properties are assertibles, there are complex properties such as being either red or not round—for one of the things you can say about Mars is that it is either red or not round.

If properties are assertibles, there are uninstantiated properties. For one of the things you can say about something is that it is a fountain of youth. There are, in fact, impossible properties, since one of the things you can say about something is that it is a book that contains a valid proof of the existence of a greatest prime.

If properties are assertibles, then they exist necessarily. For suppose that (for example) *that it is white* exists only contingently. Then there is a possible world  $w$  in which the proposition that something is white does not exist. And then the actual world does not exist in  $w$ . But  $w$  exists in the actual world. Therefore, if *that it is white* (or any assertible) exists only contingently the accessibility relation is not symmetrical. And the accessibility relation obviously is symmetrical.

## Chapter IV Being and Possibility

1. The topic of this chapter is the ontology of possibility—of alethic, as opposed to epistemic, possibility, and of the kind of alethic possibility sometimes called “logical” or “broadly logical” possibility. But these are misnomers. Logic (eked out by appeals to the meanings of non-logical words) cannot demonstrate the impossibility of a differentiable function that cannot be approximated locally by some linear function. If we conclude from this fact that such functions are “logically possible,” we affirm nonsense, for there is no sense of ‘possible’ in which they are possible.

2. The kind of alethic possibility whose ontology is investigated in this chapter is neither physical possibility nor biological possibility nor technological possibility nor any other “restricted” possibility. It is, rather, *unrestricted* or *absolute* possibility. If a proposition is physically possible, it is *possible* for it to be true and the laws of nature to be as they actually are. The italicized ‘possible’ in the previous sentence expresses unrestricted or absolute possibility. If there is restricted possibility, there must be unrestricted possibility.

3. David Lewis has said:

I believe that . . . there are many ways things could have been besides the way they actually are . . . this sentence is an existential quantification. It says that there exist many entities of a certain sort, to wit, ‘ways things could have been’.

But what sort of thing are these entities? Let us assume they are not what Lewis says they are. I proceed to offer my own proposal.

4. Canonical possibility names, that is, phrases like

The possibility that there be pigs that fly

The possibility that Napoleon have won at Waterloo,

represent themselves as naming possibilities. But this representation may be fraudulent—witness ‘the possibility that  $7 + 5 = 13$ ’, which lacks a referent, since there is no such possibility. Each possibility name corresponds to a proposition name—in these two cases, ‘the proposition that there are pigs that fly’, and ‘the proposition that Napoleon won at Waterloo’. ‘The possibility that Napoleon have won at Waterloo’ denotes a possibility just in the case that the proposition that Napoleon won at Waterloo is possibly true, and that possibility is *realized* just in the case that the proposition that Napoleon won at Waterloo is true. Possibilities  $x$  and  $y$  are identical if and only if they are necessarily both realized or necessarily both unrealized. Possibility  $x$  *includes* possibility  $y$  if and only if it is impossible for  $y$  to be unrealized if  $x$  is realized. Possibility  $x$  *precludes* possibility  $y$  if and only if it is impossible for  $y$  to be realized if  $x$  is realized. A proposition is *true in a possibility  $x$*  if and only if  $x$  includes the possibility that it be true. An object *exists in a possibility  $x$*  if and only if  $x$  includes the possibility that it exist. A *possible world* is a possibility that, for every possibility, either includes or precludes that possibility. *The actual world* is the realized possible world.

Lewis’s indexical theory of actuality cannot be incorporated into this ontology: it presupposes that ways things could be are *concreta*.

The actual world cannot mean ‘this world’: no world among all the worlds a human speaker exists in is salient enough to be the referent of an indexical.

In calling “maximally inclusive” possibilities ‘possible worlds’ we are not misusing the word. The use of the word ‘world’ to mean something like ‘life’ or ‘the human condition’ is older than the meaning ‘the cosmos’.

The modal operators can be defined in terms of possible worlds. We have in fact three modal idioms in English: modal predication (“The proposition that  $7 + 5 = 12$  is necessarily true”), quantification over modal objects (“The proposition that  $7 + 5 = 12$  is true in every possible world”), and the modal operator idiom (“It is necessarily true that  $7 + 5 = 12$ ”). The ideology of modal logic is a refinement of modal predication, and the ideology of possible-world semantics for modal logic is a refinement of the modal operator idiom.

5. Are there possibilities *in addition to* possible propositions?

It is not necessary to suppose that there are. We can eliminate *sui generis* possibilities from our ontology in favor of propositions if we suppose that for any  $xs$ , if those  $xs$  are propositions, there is a unique proposition that is the conjunction of the  $xs$ . (We stipulate that every proposition is both a conjunction of

propositions and a conjunct of a conjunction of propositions—for we stipulate that every proposition is the conjunction of the propositions with which it is identical.)

We may then define a “possibility” as the conjunction of the propositions necessarily equivalent to some possible proposition, and further define a “world-proposition” as a possible proposition that, for every proposition  $x$ , entails either  $x$  or the denial of  $x$ . We may then proceed to define a possible world as a possibility that, for every possibility  $x$ , entails either  $x$  or the denial of  $x$ . Or—an equivalent definition—we may say that a possible world is a proposition that, for some world-proposition  $x$ , is the conjunction of the propositions necessarily equivalent to  $x$ . And the actual world is the sole such proposition that is true.

6. “But why bother with ‘possibilities’ at all. Why not simply say that possible worlds are world-propositions?”

One might say that. But that definition would have the consequence that there were a vast number of actual worlds. (Owing to the fact that there are identical but necessarily equivalent propositions.) Perhaps this consequence is tolerable, but it is counterintuitive. Or suppose that it is possible for there to be nothing (concrete) and that the proposition that there is nothing (N) is a world-proposition. If possible worlds are world-propositions, then N and the proposition that everything is a mathematician who has proved that Euclid’s Parallel Postulate follows from his other postulates (P) are both possible worlds—and, necessarily, N and P are either both actual or both non-actual.

7. Why assume that there are possible worlds, even given that there are possibilities?

Every possibility includes itself. A possible world is a *comprehensive* possibility, a possibility included in no possibility but itself. How do we know that *this* is not true: Every possibility is properly included in some possibility?

Let ‘the Realized’ be a proper name of (a rigid plural designator) the possibilities that are realized. Although there is a plausible argument for the conclusion that the possibility that the Realized be realized ( $\mathfrak{R}$ ) is a comprehensive possibility—the actual world—, nothing that has so far been said implies either that there are unrealized comprehensive possibilities or that there are not. The question is: What possible worlds are there? “Only the actual world is a possible world” is one answer. This answer is correct if Spinozism (the thesis that all possibilities are realized) is true. But could it be that the actual world is the only possible world and also the case that there are unrealized possibilities? In that case, there would be possibilities that were included in no possible world. The proposition that every possibility is included in some possible world may be called the Principle of Plenitude, a principle that implies that there are no gaps in logical space. (Logical space is a space whose points are possible worlds. If it is possible for there to be flying pigs but there is no possible world in which pigs fly, the consequent “gap in logical space” is the absence of possible worlds in which pigs fly.)

But there is no real argument for the Principle of Plenitude. And the only argument for there being any non-actual possible worlds at all—any unrealized comprehensive possibilities—is that would be an astonishing coincidence if it happened that, although there are unrealized possibilities, the possibilities that are included in possible worlds are just exactly the realized possibilities.

It is therefore important to note that a modal ontology based on possibilities need not suppose that any of them is a comprehensive possibility. One may say that a proposition is possible if it is true in some possibility, necessary if true in every possibility . . . and so on. Moreover, we need give an account of only one modal property or relation, for any and all modal properties can be eliminated in favor of any one modal property. If, for example, we choose ‘inconsistent with’ as our sole piece of modal language, we could replace, e.g., ‘ $x$  is necessary’ with ‘ $\forall y (x \text{ is inconsistent with } y \rightarrow \forall z (y \text{ is inconsistent with } z))$ ’ and ‘ $x$  is possible’ with ‘ $\exists y \sim x \text{ is inconsistent with } y$ ’.

8. Essentially the same point applies to any modal ontology that treats “possible worlds” as some among the objects of a certain sort of proposition-like abstract object, to wit, the ones of that sort that are *maximal*. Plantinga’s modal ontology, for example, identifies possible worlds with possible maximal states of affairs—a maximal state of affairs being one that, for every state of affairs  $x$ , either includes  $x$  or precludes  $x$ . Since worlds are states of affairs, to say of a world that it is actual is to say that it obtains. He considers the question ‘How many worlds are actual?’ only very briefly. His brief consideration of this question begins with the words, “Obviously, *at least* one possible world obtains.” But this is not at all obvious if states of affairs are as “fine-grained” as propositions. And it is natural to suppose that propositions and states of affairs can be paired in the way illustrated by: the proposition that Socrates is snub-nosed and *Socrates’ being snub-nosed*; the proposition that  $7 + 5 = 12$  and *the sum of 7 and 5’s being 12*, and that the proposition in each such pair is true if and only if the state of affairs that is its other member obtains.

9. We have said that an object *exists in* a possibility  $x$  if and only if  $x$  includes the possibility that it exists. Obviously, there are possible worlds in which there exist objects that do not exist in the actual world. But such things are things that might exist but don’t—and things that might exist and do not exist are things that do not exist. But, as we saw in Chapters I and II, there are no things that do not exist. It must, therefore, be that everything that exists exists in the actual world. Philosophers who take this view are called actualists, and those who oppose it possibilists.

A possibilist who addressed the following complaint to me would be a typical possibilist:

‘ $\exists x$ ’ means ‘for some  $x$ ’, and not, as you evidently suppose, ‘for some actual  $x$ ’.

No doubt your mistake is to be explained by the fact that in many contexts, we

restrict the domain of our quantifiers to actual objects. But not in all contexts. You, van Inwagen, have developed from a zygote which was produced by the union of a particular egg and a particular spermatozoon. Suppose some other sperm had fertilized that egg. (There were a lot of runners in that race!) Then your mother would not have given birth to you in September of 1942, but to someone else. And that ‘someone else’ is a possible person who does not actually exist.

In Section 9, I reply to complaints of this sort by presenting some text from a draft of the late Derek Parfit’s *On What Matters* together with my running commentary on this text. Since much of the present section is in Parfit’s own words, I will not summarize it. The argument of this section, however, is essentially the argument against there being non-existent objects that was presented in first two chapters, supplemented by the following reply to the above complaint:

An object is called ‘possible’ if it is possibly F, where ‘F’ represents an adjective that is determined by the kind of object it is: so a possible proposition is a proposition that is possibly true, a possible property is a property that is possibly exemplified, and a possible state of affairs is a state of affairs that possibly obtains. Turning to concrete objects, a possible person or a possible pig can only be a person who possibly *exists* or a pig that possibly *exists*. We rarely speak of actual propositions or actual properties, but an actual state of affairs is a state of affairs that actually obtains, and an actual person is a person who actually exists. But (leaving aside such constructions as ‘thought my yacht was longer than it actually is’), ‘actually’ is semantically redundant: ‘Roses are actually red’ has the same truth-conditions as ‘Roses are red’. So ‘for some actual  $x$  (... $x$ ...)’ is equivalent to ‘for some  $x$  that actually exists (... $x$ ...)’, which is equivalent to ‘for some  $x$  that exists (... $x$ ...)’, which is equivalent to ‘for some  $x$  ( $x$  exists &...)’ which is equivalent to ‘for some  $x$  (for some  $y$   $y = x$  &...)’, which is equivalent to ‘for some  $x$  (... $x$ ...)’. I say, then, just as you do, that ‘ $\exists x$ ’ means ‘for some  $x$ ’—but it *also* means ‘for some actual  $x$ ’, for those two phrases are two ways of saying the same thing.

The terms ‘actualism’ and ‘actualist’ have caused a great deal of harm (in the form of philosophical confusion) and should be abandoned. But there is little chance of this happening.

10. But what of the Kripke semantics for quantified modal logic (QML)? Does it not require reference to and quantification over *possibilia*? And is that not a powerful argument for including *possibilia* in our ontology?

The following pair of sentences illustrates the intuitive ideas that motivate Kripke semantics.

$$\forall x \sim \Diamond x \text{ is immaterial}$$

$$\forall x (\text{in } \alpha, \text{Ex} \rightarrow \sim \exists y (y \text{ is a world \& in } y, x \text{ is immaterial})).$$

The first is the result of substituting the English predicate ‘is immaterial’ for a predicate letter in a sentence of the language of QML. The second is the Kripke truth-condition for the first. The quantifiers of the meta-language—the language in which the truth-conditions for modal statements are expressed—range over *possibilia*. In this language, ‘ $\alpha$ ’ denotes the actual world, and ‘E’ is an existence predicate (which is not assumed to be a universal predicate—not assumed to be co-extensive with ‘ $\exists y y = x$ ’ or ‘ $x = x$ ’). A *possibile* that falls outside the extension of ‘Ex’ is a *mere possibile*.

If we suppose that every existent thing is material and could not have been immaterial, Kripke semantics implies that ‘ $\forall x \sim \Diamond x$  is immaterial’ is true—and does not imply that ‘ $\Diamond \exists x$  is immaterial’ is false.

If one refuses to include mere *possibilia* in one’s ontology, haecceities are a promising substitute. Thomas Jager has constructed an haecceity-based semantics for QML. In Jager semantics, the truth-condition for ‘ $\forall x \sim \Diamond x$  is immaterial’ is

$$\forall x (x \text{ is an haecceity \& in } \alpha, x \text{ is instantiated} \rightarrow \sim \exists y (y \text{ is a world \& in } y, x \text{ and immateriality are co-instantiated})).$$

An alternative haecceity-based semantics assigns the truth-condition

$$\forall x \forall y (Hxy \rightarrow \sim \exists z (z \text{ is a world \& in } z, y \text{ and immateriality are co-instantiated}))$$

to ‘ $\forall x \sim \Diamond x$  is immaterial’. (‘Hxy’ abbreviates ‘x is the haecceity of y’. The alternative semantics does not require a symbol that designates the actual world.) The alternative semantics avoids a subtle technical difficulty that infects Jager semantics.

It seems, therefore, that it is possible to provide a semantics for quantified modal logic that does not involve *possibilia*.

## Chapter V Being and Generality

1. In Chapter I, sentences containing ‘ $\forall$ ’ and ‘ $\exists$ ’ and natural-language predicates were introduced as abbreviations of sentences of a regimented version of English. To do this, it was maintained, was to explain the meanings of ‘ $\forall$ ’ and ‘ $\exists$ ’.

I could have done more. I could have noted the common structural characteristics of the two sentences

$\forall x$  (if  $x$  is a person, then, if  $x$  acts as the attorney of  $x$ ,  $\exists y$  ( $y$  is a client of  $x$  and  $y$  is a fool))

$\forall x$  (if  $x$  is a proposition, then, if  $x$  entails the falsity of  $x$ ,  $\exists y$  ( $y$  is a necessarily false proposition and  $x$  entails the truth of  $y$ )).

I could have gone on to introduce “predicate letters” and sentential connectives and have produced displays like this:

$\forall x (Fx \rightarrow (Gxx \rightarrow \exists y (Hyx))).$

A much more usual procedure, however, would have been to start with sentences like that one—sentences in the language of “first-order logic”—and then, for each assignment of an extension to a predicate letter, to “chase truth up the tree of grammar.” That is (in the present case), to find the truth or falsity of the sentence, given the extensions assigned to ‘F’, ‘G’, and ‘H’. In this procedure, the quantifiers are treated as “extension transformers.” For example, the extension of the open sentence ‘ $Fx \rightarrow (Gxx \rightarrow \exists y (Hyx))$ ’ is a certain set. Prefixing ‘ $\forall x$ ’ to that sentence produces a sentence that has the extension ‘truth’ if everything belongs to that set and falsity if anything does not. And to show how expressions like ‘ $\forall x$ ’ and ‘ $\exists y$ ’ transform extensions (it is held) is to explain the meanings of ‘ $\forall$ ’ and ‘ $\exists$ ’.

This explanation of the meanings of ‘ $\forall$ ’ and ‘ $\exists$ ’ is sometimes called “the objectual interpretation of the quantifiers.” The objectual interpretation certainly does imply that there is a close connection between, on the one hand, the meaning of ‘ $\forall$ ’ and the meanings of words like ‘all’ and ‘any’ and ‘each’ and ‘every’, and, on the other, the meaning of ‘ $\exists$ ’ and the meanings of words and phrases like ‘some’ and ‘there is a’ and ‘exists’—for the former words are essential to the explanation of how ‘ $\forall x$ ’ and ‘ $\forall y$ ’ and so on, transform extensions, and the latter are essential to the objectualist explanation of how ‘ $\exists x$ ’ and ‘ $\exists y$ ’ and so on, transform extensions.

I prefer not to regard the objectual interpretation of the quantifiers as an interpretation at all. (In my view, the quantifiers need no interpretation, occurring as they do only in abbreviations of sentences of regimented English.) I prefer to regard it as a truth-theory—a beautiful and true truth-theory—for sentences of that regimented dialect of English. The discussion of “substitutional quantification” in the section that follows will address the thesis that a truth-theory *is* a meaning theory.

2. The following statement is extremely plausible: ‘The sentence “Some of the gods worshiped by the Greeks were worshiped under other names by the Romans” expresses a truth, so it cannot be right to say that it is true if and only if something

belongs to the extension of “ $x$  is a god who was worshiped by the Greeks and was worshiped under another name by the Romans.”

The plausibility of that statement has led many philosophers to affirm the existence of a species of quantification different from objectual quantification—a species called *substitutional* quantification. If ‘ $\Sigma$ ’ is the substitutional analogue of ‘ $\exists$ ’, the truth-condition for ‘ $\Sigma x x$  is a dog’ is

There is a name such that the result of replacing the variable ‘ $x$ ’ with that name in the open sentence ‘ $x$  is a dog’ is a sentence that expresses a true proposition.

Some writers speak of two rival interpretations of “the quantifier.” Others see the objectual existential quantifier and the substitutional existential quantifier (or, better, the substitutional *particular* quantifier) as two different operators—in no way rivals. Here the latter position has been adopted. (Note that ‘there is’ in the statement of the truth-condition for ‘ $\Sigma x x$  is a dog’ can hardly be supposed to be a substitutional quantifier.)

One problem for the friends of substitutional quantification is the problem of objects that have no names—and objects that *can* have no names (such as well-ordering relations on the real numbers, whose existence is a consequence of the axiom of choice). A more serious problem lies in the fact that no one has ever said what the sentence ‘ $\Sigma x x$  is a dog’ means—or has said what any sentence of the form ‘ $\Sigma x Fx$ ’ means. We have been told that it is true just in the case that there is a name such that the result of replacing the variable ‘ $x$ ’ with that name in the open sentence ‘ $x$  is a dog’ is a sentence that expresses a true proposition. One sentence that has that truth-condition is ‘There is a name such that the result of replacing the variable “ $x$ ” with that name in the open sentence “ $x$  is a dog” is a sentence that expresses a true proposition’. But the proponents of substitutional quantification say that that sentence and ‘ $\Sigma x x$  is a dog’ have different meanings. We have been told only this: There are sentences that are true if and only if ‘There is a name such that (etc.)’ is true, and ‘ $\Sigma x x$  is a dog’ is one of them.

We understand ‘ $\Sigma$ ’ no better than we should understand ‘ $\wedge$ ’ if we were told these two things and nothing more:

For any variable  $\alpha$  and any sentence  $F$ ,  
 $\lceil \wedge \alpha F \rceil$  is true if and only if  $\lceil \forall \alpha F \rceil$  is true

and

‘ $\wedge$ ’ means something different from ‘ $\forall$ ’ and  $\lceil \wedge \alpha F \rceil$  means something different from  $\lceil \forall \alpha F \rceil$ .

Could it be that ‘ $\Sigma$ ’-sentences are abbreviations of infinitely long disjunctions (and ‘ $\wedge$ ’-sentences—where ‘ $\wedge$ ’ is the dual of ‘ $\Sigma$ ’—of infinitely long conjunctions)? *Are*



there infinitely long sentences—other than set-theoretical constructions of some sort? A sentence of the form ‘ $\Sigma x Ay Fxy$ ’ will be an abbreviation of an infinitely long disjunction each of whose disjuncts is an infinitely long conjunction. If such sentences exist, can we understand them? I cannot understand the sentence I gesture at by writing the incomplete expression ‘0 is even and 1 is odd and 2 is even and 3 is odd and . . . 999 is odd’, and that sentence, far from being infinite, comprises only 3,999 words. Of course, I can understand the sentence ‘0 is even and any number less than 1000 is odd if it is the successor of an even number, and is even if it is the successor of an odd number’—but that sentence contains only thirty-two words.

3. The expression ‘ $\forall p (p \vee \sim p)$ ’ contains a “sentential quantifier” and a “sentential variable.” It is said to be equivalent to neither ‘ $\forall x (x \text{ is a proposition} \rightarrow x \text{ is true} \vee \sim x \text{ is true})$ ’ nor ‘ $\forall x (x \text{ is a sentence} \rightarrow \text{the alternation of } x \text{ with the negation of } x \text{ is true})$ ’ nor any expression that contains nominal variables. The thesis that sentential quantification is meaningful has at least two important philosophical consequences. First, an explicit definition of the truth-predicate is possible:

$x \text{ is true} =_{df} \exists p (x = \text{the proposition that } p \ \& \ p)$ .

Secondly, those who wish not to quantify over propositions can avoid doing so and still to be able to provide formal representations of the quantificational structure of statements like ‘Some of the things Nixon asserted on Tuesday contradicted some of the things Dean asserted on Wednesday’.

But *is* sentential quantification meaningful? How is it to be understood? ‘ $\forall p (p \vee \sim p)$ ’ might be understood “substitutionally”—that is, as equivalent to ‘ $\forall x (x \vee \sim x)$ ’ (it being understood that substitution-instances of ‘ $x \vee \sim x$ ’ are obtained by replacing ‘ $x$ ’ with sentences, not terms). But if substitutional quantification has never been adequately explained, some other way must be found if philosophers are to have this useful device at their disposal.

I have proposed that nominal variables be understood as (essentially) third-person-singular pronouns. Dorothy Grover has proposed that sentential variables be understood as “prosentences”—a prosentence being a word or phrase that is not a sentence, but which (i) can be used for many of the same purposes as a sentence: it can be used to make a statement, it can serve as the antecedent of a conditional . . . and (ii) can be used anaphorically: occurrences of a prosentence can have antecedents.

But are there prosentences? Skeptics like myself will ask to be shown either a prosentence or at least some sort of argument to show that the properties Grover’s definition of prosentence comprises are mutually consistent. Grover followed Joseph Camp’s suggestion that ‘it is true’ is a prosentence, but in many contexts ‘it is true’ behaves not like a semantically indivisible unit, but like the open

sentence ‘ $x$  is true’. And, if we wish to represent ‘ $\forall p (p \vee \sim p)$ ’ as an abbreviation of a sentence of a supplemented and regimented modification of English, a sentence that consists of something prefixed to ‘it is true  $\vee \sim$  it is true’, what will that “something” be? No answer to this question suggests itself.

4. If there are sentential variables and quantifiers, there are predicative variables and quantifiers—witness

$$\forall F \forall x \forall y (Fx \ \& \ x = y. \rightarrow Fy).$$

Such expressions are, from the point of view defended in this volume, meaningless, owing to the fact that there are no “pro-verbs” or “propredicates” that can stand to predicative variables (so-called) as pronouns stand to nominal variables (redundantly so-called). Still, there do seem to be sentences that are in some sense nominal-variable counterparts or analogues of that sentence. For example,

$\forall x \forall y \forall z \forall w$  ( $x$  is a variable &  $y$  is a variable &  $z$  is an open sentence in which  $x$  alone is free &  $w$  is the sentence obtained by replacing each free occurrence of  $x$  in  $z$  with  $y$ .  $\rightarrow$  ‘ $\forall x \forall y (z \ \& \ x = y. \rightarrow w)$ ’ is true.

$\forall z \forall x \forall y$  ( $z$  is a set  $\rightarrow (x \in z \ \& \ x = y. \rightarrow y \in z)$ )

$\forall z \forall x \forall y$  ( $z$  is a monadic unsaturated assertible  $\rightarrow (z$  is true of  $x \ \& \ x = y. \rightarrow z$  is true of  $y)$ )

(The second and third of these sentences are instances of theorems of nominal-variable quantificational logic with identity. The first says that all sentences constructed in a certain way are true, and all sentences constructed that way are instances of theorems of nominal-variable quantificational logic with identity. This is due to the fact that the expression that results from dropping the initial ‘ $\forall F$ ’ of ‘ $\forall F \forall x \forall y (Fx \ \& \ x = y. \rightarrow Fy)$ ’, and treating ‘ $F$ ’ in that expression as a predicate letter rather than a free predicative variable, is a theorem of nominal-variable quantificational logic with identity.) We can think of these three sentences as possible “nominal-variable” paraphrases of a sentence—‘ $\forall F \forall x \forall y (Fx \ \& \ x = y. \rightarrow Fy)$ ’—that contains occurrences of a predicative variable.

Such paraphrases are not difficult to provide except in the third, or “unsaturated assertible” case, and then only in the case of expressions like

$$\exists F \forall x \forall y Fxy,$$

—that is, expressions in which an occurrence of a predicative variable is followed by two or more occurrences of nominal variables.

A “first draft” of a nominal-variable paraphrase of ‘ $\exists F \forall x \forall y Fxy$ ’ might be

$$\exists z (z \text{ is a dyadic unsaturated assertible } \ \& \ \forall x \forall y (z \text{ is true of } x \text{ and } y)),$$

but then how shall we paraphrase

$$\exists F \exists x \exists y (Fxy \ \& \ \sim Fyx)$$

—a sentence that is supposedly a logical consequence of the truth

$$\exists x \exists y (x \text{ is north of } y \ \& \ \sim y \text{ is north of } x).$$

The paraphrase cannot be

$$\exists z \exists x \exists y (z \text{ is a dyadic unsaturated assertible} \ \& \ z \text{ is true of } x \text{ and } y \ \& \ \sim z \text{ is true of } y \text{ and } x),$$

for there is no semantical difference between ‘true of  $x$  and  $y$ ’ and ‘true of  $y$  and  $x$ ’. The problem is created by the (presumed) existence of non-symmetrical relations. If a relation is an unsaturated assertible, and if there are non-symmetrical relations, there are non-symmetrical unsaturated assertibles. If speaker A says, ‘Edinburgh is north of London’, it seems that there is something A said of Edinburgh and London—and of London and Edinburgh—and that it is true of them. If speaker B says ‘London is north of Edinburgh’, it seems that there is something B said of Edinburgh and London—and of London and Edinburgh—and that it is false of them. Either (it seems)

(i) There is something  $x$  such that, in asserting that Edinburgh is north of London, A said  $x$  of Edinburgh and London and  $x$  is true of Edinburgh and London, *and* there is a distinct thing  $y$  such that, in asserting that London is north of Edinburgh, B said  $y$  of Edinburgh and London and  $y$  is false of Edinburgh and London

or

(ii) There is something  $x$  such that, in asserting that Edinburgh is north of London, A said  $x$  of Edinburgh and London in a certain way and  $x$  is true of Edinburgh and London in that way, *and*, in asserting that London is north of Edinburgh, B said  $x$  of Edinburgh and London in a certain way, and  $x$  is false of Edinburgh and London in that way.

Here, the latter disjunct is chosen. We shall adopt a method of paraphrase illustrated by the paraphrase of ‘ $\exists F \exists x \exists y (Fxy \ \& \ \sim Fyx)$ ’:

$$\exists z \exists x \exists y (z \text{ is a dyadic unsaturated assertible} \ \& \ z \text{ is } xy \text{ true of } x \text{ and } y \ \& \ \sim z \text{ is } yx \text{ true of } y \text{ and } x),$$

But what does ‘ $z$  is  $xy$  true of  $x$  and  $y$ ’ mean?

Let us say that expressions like ‘ $\text{—}$  is north of  $\text{—}$ ’ are *two-place predicates*. A two-place predicated *expresses* a dyadic relation. Let ‘ $R(\text{—}$  is north of  $\text{—})$ ’ denote the relation expressed by ‘ $\text{—}$  is north of  $\text{—}$ ’. Say that ‘Edinburgh is north of London’ is the ‘Edinburgh’-‘London’ completion of ‘ $\text{—}$  is north of  $\text{—}$ ’, and that ‘London is north of Edinburgh’ is the ‘London’-‘Edinburgh’ completion of ‘ $\text{—}$  is north of  $\text{—}$ ’. Then,

$z$  is  $xy$  true of  $x$  and  $y =_{df} \forall u \forall v \forall w (u \text{ is a predicate \& } u \text{ expresses } z \ \& \ v \text{ is a term \& } v \text{ denotes } x \ \& \ w \text{ is a term \& } w \text{ denotes } y. \rightarrow \text{ the } vw \text{ completion of } u \text{ is true})$ .

This definition can be extended to  $n$ -term relations for any  $n > 2$ , although the number of ways in which an  $n$ -term relation can be said to be true of  $m$  objects increases rapidly as either of those numbers increases. The tetradic relation expressed by the predicate ‘ $\text{—}$  is north of  $\text{—}$  and  $\text{—}$  is west of  $\text{—}$ ’ can be said to be true of Edinburgh, Manchester, and London in thirty-six ways. There is, for example, the statement that that relation is Edinburgh London Manchester London true of those three cities—a statement that is true just in the case that Edinburgh is north of London and Manchester is west of London.

We now have the resources to paraphrase sentences containing predicative variables as sentences that contain only nominal variables.

## Chapter VI Lightweight Platonism: An Ontological Framework

1. This chapter presents a meta-ontology and an ontology (“Lightweight Platonism”) within which the conclusions of the five preceding chapters can be placed.

The meta-ontology incorporates the conviction that being is a thin concept—thin because the following open sentences are necessarily extensionally equivalent:

$x$  exists

$\exists y y = x$

$x = x$

There is such a thing as  $x$

It is not the case that everything is something other than  $x$

The number of things that are identical with  $x$  is greater than 0.

It also endorses a method for ontology: to extract philosophically interesting existential propositions from the beliefs of non-philosophers and from the beliefs philosophers bring to philosophy. A Quinean analysis of our discourse uncovers

various roles that—that discourse presupposes—are filled by something or other. Metaphysical reasoning then attempts to specify the properties that a “something or other” that could play those roles would have to have.

The meta-ontology explicitly rejects the contention that ontological investigations should proceed by attempting to provide metaphysical explanations of certain facts (that a blade of grass and a leaf are both green, for example) and affirming the existence of the entities required by the explanation. There are no such explanations. One may explain the fact that the blade and the leaf are both green in terms of their chemical constitution or in terms of the way they both reflect light or in terms of the similar effects they have on the human sensory apparatus, but there is no such thing as a metaphysical explanation of the blade and the leaf both being green. Moreover, there must be cases in which there is no ordinary, non-metaphysical explanation of the fact that things are alike in a certain respect. Suppose, for example, that there is no scientific explanation of the fact that two electrons have the same charge. In this case, too, the metaphysical explanation makes no sense. Such an explanation can be extracted from this statement by David Lewis.

[Consider] two particles each having unit positive charge. Each one contains a non-spatiotemporal part corresponding to charge. [It is a universal and] the same universal for both particles. One and the same universal recurs; it is multiply located; it is wholly present in both particles, a shared common part whereby the two particles overlap. Being alike by sharing a universal is ‘having something in common’ in an absolutely literal sense.

If this is right, then an electron has a physical quantity as a part. (A physical quantity Lewis would call ‘unit negative charge’ and I will call ‘the charge on the electron’.) And physical quantities can be multiplied by numbers and by other physical quantities. For example:

$$\begin{aligned} \pi \times \text{the charge on the electron} &= -5.033386343127623 \times 10^{-19} \text{ coulombs} \\ & \\ & ((\text{the charge on the electron})^2 \div (1 \text{ nanometer})^2) \\ & \times \\ & \text{Coulomb's constant} \\ & = \end{aligned}$$

the magnitude of the repulsive force one electron exerts on another if they are 1 nanometer apart.

I can make no sense of the idea that an entity that can be a subtrahend, a multiplicand, and a divisor can be a constituent of a physical thing.

But if objects with certain properties are postulated in the course of providing a metaphysical explanation of a certain fact, and if the idea of such an explanation makes no sense, it is not surprising that the idea of an object that has those properties makes no sense.

2. Metaphysical reasoning has convinced me that every role a Quinean analysis of our discourse uncovers can be played by objects of one or the other of these two kinds:

—objects to which the following descriptions apply: ‘abstract object’, ‘relation’, ‘anetiological or non-causal object’, ‘universal’.

—objects to which the following descriptions apply: ‘substance’, ‘concrete object’, ‘causal object’, ‘particular’, ‘individual’.

Lightweight Platonism is essentially the union of a Quinean meta-ontology with the thesis that the only abstract objects are relations (propositions being considered to be 0-term relations and properties 1-term relations.)

Philosophers have affirmed the existence and made use of objects of many other kinds than these. Among them are

—states (mental and physical)

—tropes

—immanent universals

—bare particulars

—mathematical entities

—events.

I would deal with the philosophical problems that Lightweight Platonism faces because it fails to affirm the existence of the items in this list in various ways. A failure to countenance the existence of tropes and immanent universals and bare particulars is no embarrassment for Lightweight Platonism, for there are no such things. But Lightweight Platonism’s denial of the existence of events is much more serious. It commits the Lightweight Platonist to the onerous task of finding paraphrases for sentences like, ‘The sequence of events leading up to the Challenger disaster is now well documented’.

The Lightweight Platonist identifies “states” with properties—an identification with the odd but defensible consequence that your and my current mental states existed when dinosaurs roamed the earth and would have existed if you and I hadn’t, and if no living thing had ever, existed.

If the work done by mathematical entities cannot be assigned to relations, Lightweight Platonism is obviously not an acceptable ontology. In the case of the work done by mathematical entities of many kinds, there is an embarrassment

of riches. The number 1, for example, can be identified with the relation “the *x*s are exactly 1 in number,” the number 2 with the relation “the *x*s are exactly 2 in number,” and so on.

3. Sets are the most difficult of the mathematical objects to do without. The problem cannot be solved by adopting a nominal-variable analogue of Russell’s “no class” theory. Such a theory would tell us how to eliminate sentences of the form ‘ $G\{x|Fx\}$ ’ from our discourse. What we need, however, is a way to eliminate sentences of the forms ‘*x* is a set’ and ‘ $x \in y$ ’ from our discourse.

I propose that we assume that everything has exactly one haecceity, and that, for any *x*s, if those *x*s are haecceities, at most one property is a disjunction of the *x*s. If we assign any one impossible property *N* to play the role of the empty set (non-self-identity, for example), we may replace ‘*x* is a set’ with

$x = N \vee$  for some *ys* (the *ys* are haecceities &  $\forall z$  (*z* is one of the *ys*  $\rightarrow \exists w$  *w* has *z*) & *x* is a disjunction of the *ys*),

and ‘ $x \in y$ ’ with

For some *zs*, (the *zs* are haecceities &  $\forall w$  (*w* is one of the *zs*  $\rightarrow \exists v$  *v* has *w*) & *y* is a disjunction of the *zs* & *x* has *y*).

Essentially, this alternative to set theory replaces (non-empty) sets with disjunctions of instantiated haecceities. (The counterpart to Russell’s Paradox is: A contradiction can be deduced from the premise that just any haecceities have a disjunction.)

Those who adopt this alternative will find that they do not face questions about the empty set or about unit sets. The empty set, or its analogue in this alternative, is simply the impossible property *N*, and Socrates’ unit set or singleton is his haecceity. Moreover, they will find that the analogue of the argument

Ontological grounding is real, for Socrates and {Socrates} exist in the same possible worlds, but {Socrates} depends for its existence on Socrates and Socrates does not depend for his existence on {Socrates}

makes no appeal to them—for that analogue is

Ontological grounding is real, for Socrates and Socrateity exist in the same possible worlds, but Socrateity depends for its existence on Socrates and Socrates does not depend for his existence on Socrateity,

and both ‘Socrates and Socrateity exist in the same possible worlds’ and ‘Socrateity depends for its existence on Socrates’ are false. Socrateity is the analogue of {Socrates} only in worlds in which it instantiated.

4. Lightweight Platonism is a lightweight platonism because the *universalia ante res* whose existence it affirms are without causal powers. According to the criterion of the Eleatic Stranger (*Sophist*, 247E), they are not real things at all. It is not clear whether there is any sense to be found in speaking of anything that really exists as “not real.” And I do insist that universals (or relations or abstract objects) really exist. By contrast the Forms of the heavyweight Platonism of Plato confer on things their proper natures and their persistence in those natures. The abstract objects of Lightweight Platonism are devoid of causal powers and for that reason they explain nothing. Of course they *figure in* explanations, just as numbers figure in (e.g.) applications of the square-cube law.

Reality, then, is divided into two radically different parts. One part comprises things that move other things and are moved by them, and the other things to which the concepts of motion and cause and change do not apply. I wish it were not so, but if I were to affirm that there were no such things, I should contradict myself