

E. J. LOWE

MORE KINDS OF BEING

A Further Study of
Individuation,
Identity, and the
Logic of Sortal Terms

 **WILEY-BLACKWELL**

A John Wiley & Sons, Ltd., Publication

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Preface

In 1989, my book *Kinds of Being: A Study of Individuation, Identity, and the Logic of Sortal Terms* was published by Blackwell in the Aristotelian Society monograph series. The book received quite favourable reviews, including one by Peter Simons in *Mind* and another by Harold Noonan in *Philosophy*, and it has subsequently been referred to by numerous other authors in books and journals. In the latter part of the 1990s the book went out of print and copies of it have been increasingly difficult to obtain, even though the frequency of references to it has not diminished. For this reason alone, a case could be made out for bringing out a second edition. However, it would have been a missed opportunity to let such a second edition of the book differ from the first only in respect of a few minor revisions to the text and an updating of references. Apart from anything else, my views on a number of topics dealt with in the book have developed in quite major ways since 1989, some of these developments being reflected in various later articles and books of mine, but especially in my *The Possibility of Metaphysics: Substance, Identity, and Time* (Oxford: Clarendon Press, 1998) and *The Four-Category Ontology: A Metaphysical Foundation for Natural Science* (Oxford: Clarendon Press, 2006). See also my chapter 'Individuation', in M. J. Loux and D. W. Zimmerman (eds), *The Oxford Handbook of Metaphysics* (Oxford: Clarendon Press, 2003).

Perhaps the most important of these developments was my conversion to what I call 'the four-category ontology', a metaphysical system that draws its inspiration from Aristotle and maintains that there are four fundamental ontological categories – (1) substantial individuals, (2) substantial universals or 'kinds', (3) attributive universals, and (4) particularized properties or 'modes'. In effect, the first edition of *Kinds of Being* was explicitly committed only to the first and second of these categories and

implicitly to the third. It recognized no place for what I call *modes* and other philosophers nowadays commonly call ‘tropes’ – that is, properties conceived as particulars rather than universals, such as the individual whiteness of a particular piece of white marble. There is very little in the first edition of *Kinds of Being* that I now consider to be positively *mistaken*, but there is a good deal that warranted careful reworking to bring it into line with my current metaphysical opinions and to make it a more useful resource for readers of my later books, especially *The Four-Category Ontology*. For example, in *The Four-Category Ontology* I do not devote much discussion to what I call ‘sortal logic’ (only part of Chapter 4), crucial though this is for a proper understanding of my account of natural laws and dispositions. Rather, I refer the reader to my extensive treatment of this topic in *Kinds of Being*. However, because the ontology of *Kinds of Being* is not the fully fledged four-category ontology of my later work, readers who do turn to it for this purpose are in danger of being confused.

Kinds of Being merited not only extensive reworking, but also some expansion. In particular, there are two closely related topics that are underdeveloped in the first edition of the book but which deserve fuller treatment, in line with later work of mine on these topics. The topics in question are those of *number* and *plurality* (including plural quantification). In a paper published in 1991, ‘Noun Phrases, Quantifiers, and Generic Names’, *Philosophical Quarterly* 41, pp. 287–300, I offer reasons for thinking that the apparent reference of sortal terms to *kinds* cannot be explained away in terms of plural quantification over individuals, thereby filling a gap in my argument, in *Kinds of Being*, in favour of such reference being genuine. In another paper published in 2003, ‘Identity, Individuality, and Unity’, *Philosophy* 78, pp. 321–36, I compare Locke’s view of number with Frege’s, coming down more in favour of the former than of the latter. Since issues concerning number and issues concerning identity are intimately related, and Locke’s and Frege’s positions concerning the latter are extensively discussed in the first edition of *Kinds of Being*, it was appropriate to augment the book with a chapter on the topic of number, since there is no extended treatment of this in the first edition. Thus the revised version of the book contains twelve chapters instead of just ten, the two new chapters drawing on and further developing the ideas first presented in the articles just mentioned. Here I should also remark that, while I do discuss number in both *The Possibility of Metaphysics* and *The Four-Category Ontology*, I have significantly new things to say on the topic in the additional chapter concerning it.

Another, albeit lesser, change to the book concerns its discussion of *criteria of identity*. In the same year in which *Kinds of Being* was published, 1989, a paper of mine entitled ‘What is a Criterion of Identity?’ appeared in *Philosophical Quarterly* 39, pp. 1–21. This paper, which has frequently

been cited, contains a much fuller discussion of certain issues that were touched upon only briefly in the relevant parts of *Kinds of Being*, and since 1989 I have had extensive further thoughts concerning these important issues: see, especially, my ‘Objects and Criteria of Identity’, in Bob Hale and Crispin Wright (eds), *A Companion to the Philosophy of Language* (Oxford: Blackwell, 1997). It was clearly appropriate to mention some of my latest thinking on these matters in the new version of the book. Although the foregoing is a particularly noteworthy example, there are many other issues discussed in *Kinds of Being* whose treatment was clearly capable of improvement by a substantial reworking in the light of more recent thoughts of mine on the subjects in question, such as the notion of *material constitution* – the relationship that I take to hold between, for instance, a bronze statue and the lump of bronze from which it is fashioned.

There are some distinguished recent precedents for a project of the kind that I have now undertaken – that is, a thorough reworking and expansion of a book, going beyond what is normal for a ‘second edition’. I have in mind, in particular, David Wiggins’s *Sameness and Substance Renewed* (Cambridge: Cambridge University Press, 2001), his reworking of *Sameness and Substance* (Oxford: Blackwell, 1980), and D. H. Mellor’s *Real Time II* (London and New York: Routledge, 1998), his replacement for *Real Time* (Cambridge: Cambridge University Press, 1981). In each case, the gap between the two versions was in the region of twenty years, which is the same in the case of *Kinds of Being* and *More Kinds of Being*. Since Wiggins and Mellor are amongst the philosophers whose work in metaphysics I have always admired the most, I am more than happy to follow their example in this regard. Just as they did, I have retained an echo of the title of the original book in the title of the new version. I thought it particularly appropriate to call the new version *More Kinds of Being*, not only because this version expands upon the work of *Kinds of Being*, but also because it reflects my new commitment to the existence of a kind – in the sense of *category* – of being not recognized in the earlier work, namely, the category of *modes* or *tropes*. Perhaps, in this regard, I could justly say to my earlier self what Hamlet said to his friend Horatio, ‘There are more things in heaven and earth, Horatio, than are dreamt of in [y]our philosophy’ (*Hamlet*, act 1, scene 5).

In order to gain a clearer view of the extent of the changes made to *Kinds of Being*, it may be helpful for the reader to compare the original table of contents of *Kinds of Being* with that of *More Kinds of Being*. In the latter, I have marked with an asterisk additional chapters or chapter-sections, as well as the new Preface and Bibliography. Note that Chapter 12 in *More Kinds of Being* covers much the same territory as does the corresponding Chapter 10 of *Kinds of Being*, but has been given a more conspicuous title

and is subdivided into two sections. Note also that the new fourth section of the introductory Chapter 1 explains more fully to the reader how and why the new version of the book differs from the old and how the new version relates to other recent work of mine, especially my *The Four-Category Ontology*.

Acknowledgements

In the course of this study I have drawn on material contained in the following previously published articles of mine, and I am grateful to the editors and publishers of the journals and book in which they appeared for permission to re-use this material. Chapter 2 draws partly on my chapter ‘Substance’ in G. H. R. Parkinson (ed.), *An Encyclopaedia of Philosophy* (London: Routledge, 1988). Chapters 3, 5 and 6 are based partly on ‘Instantiation, Identity, and Constitution’, *Philosophical Studies* 44 (1983), pp. 45–59, published by D. Reidel Publishing Company, and partly on ‘Sortal Terms and Absolute Identity’, *Australasian Journal of Philosophy* 64 (1986), pp. 64–71. In addition, some parts of Chapter 6 are drawn from ‘The Paradox of the 1,001 Cats’, *Analysis* 42 (1982), pp. 27–30, ‘Reply to Geach’, *Analysis* 42 (1982), p. 31, and ‘On Being a Cat’, *Analysis* 42 (1982), pp. 174–4. Chapter 4 – which is new to this version of the book – is based on ‘Identity, Individuality, and Unity’, *Philosophy* 78 (2003), pp. 321–36. Chapter 9 is based on ‘Sortal Terms and Natural Laws’, *American Philosophical Quarterly* 17 (1980), pp. 253–60, and Chapter 11 on ‘Laws, Dispositions, and Sortal Logic’, *American Philosophical Quarterly* 19 (1982), pp. 41–50. Chapter 10 – which is again new to this version of the book – is based on ‘Noun Phrases, Quantifiers, and Generic Names’, *Philosophical Quarterly* 41 (1991), pp. 287–300.

I should like to repeat my thanks to all those who read the manuscript of *Kinds of Being* at various stages of its composition and whose comments and criticisms contributed so greatly to its improvement – above all Jennifer Hornsby, in her role as a member of the Aristotelian Society Monographs Committee. I am also very grateful to the readers who, on behalf of Wiley–Blackwell, commented so helpfully on my proposal to rework the book in its present form. Some of these readers remain anonymous, but I must record a particular debt of gratitude to John Heil, who commented

in detail not only on the proposal but also on the penultimate draft. There are in addition many more people than I could hope to list here individually to whom I owe intellectual debts for ideas developed in the course of the book, in both of its versions. Many of these are referred to in the book and cited in the Bibliography. Last but not least, I should mention that the manuscript of this book was completed with support from the Arts and Humanities Research Council's Research Grant AH/F009615/1, 'The New Ontology of the Mental Causation Debate'.

1

Introduction

My aim in this study is to examine a cluster of interrelated issues in metaphysics, logic, and the philosophy of language, a common factor being the importance that I attach to *sortal* concepts in my treatment of these issues.¹ A sortal concept is a concept of a distinct *sort* or *kind* of individuals. Individuals may be either *concrete* (like chairs and people) or *abstract* (like propositions and sets), but my concern in what follows will mostly be with concrete individuals and the kinds to which they belong.² Where concrete individuals are concerned, kinds may be *natural* (horses, trees, electrons, and so on) or they may be *artefactual* (tables, books, computers, cities, and so on), although in the present study I place much more emphasis on the former. This stress on the concrete and the natural is motivated by the conviction that entities in this class must enjoy some sort of ontological priority over both abstract and artefactual objects – although the defence of this conviction is not something that I undertake in the ensuing pages.

Sortal concepts are characteristically governed by *criteria of individuation and identity* – metaphysically grounded semantic principles which determine what are to count as individual instances of the sorts or kinds in question and the conditions for their identity or diversity at a time and (where this is appropriate) over time. Criteria of identity may be the same for many closely related sortal concepts – for example, for the concepts of various different kinds of animals – but differ radically for sortal concepts relating to different ontological categories: for instance, for *geological* as opposed

¹ The term ‘sortal’ itself we owe to John Locke: see his *An Essay Concerning Human Understanding*, ed. P. H. Nidditch (Oxford: Clarendon Press, 1975), III, III, 15.

² For more on the abstract/concrete distinction, see my ‘The Metaphysics of Abstract Objects’, *Journal of Philosophy* 92 (1995), pp. 509–24.

to *biological* sortal concepts.³ Thus I take it to be evident that *mountains* are not governed by the same identity criterion as *mice*. Where two sortal concepts are governed by different criteria of identity, it simply makes no sense to identify an individual falling under one of these concepts with an individual falling under the other.

This is one of the principal claims that I advance in this study, and I defend it in depth against a rival position advocated by adherents of the relativist conception of identity – a conception most famously championed by P. T. Geach.⁴ The implications of this claim for metaphysics are profound, especially insofar as it provides a means to block various reductivist strategies, and I shall devote a substantial part of this study to illustrating this in connection with the issues of personal identity and the mind/body problem. I argue that *persons* constitute a distinct sort or kind of entity and are not to be identified with the biological entities in which they are embodied. The position that I defend is not, however, to be confused with any version of Cartesian dualism.⁵

In the final third of the book I examine in detail the semantics and logic of sortal terms in natural language, although inextricably intertwined with this discussion is an account of the place of sortal concepts in the formulation and empirical confirmation of scientific laws and theories. Amongst other things, I maintain that the most satisfactory approach to the semantics of sortal terms (or, at least, of natural kind terms) is to accord them a genuinely referential or name-like role, regarding their referents (sorts or kinds) as *universals* conceived in the manner of ‘Aristotelian’ or ‘immanent’ realism. I also urge that scientific law-statements are best interpreted precisely as expressing propositions purporting to concern such ‘real’ sorts or kinds, and predicating of them properties and relations which attach only derivatively to their individual exemplars or instances. The approach that I recommend in this study is shown to have considerable advantages over more orthodox nominalist and inductivist accounts of scientific laws and scientific method.⁶

³ For more on the notion of an ontological category, see my *The Four-Category Ontology: A Metaphysical Foundation for Natural Science* (Oxford: Clarendon Press, 2006), especially Part I.

⁴ See P. T. Geach, *Reference and Generality*, 3rd edn (Ithaca, NY: Cornell University Press, 1980).

⁵ My fullest defences of the position that I now call *non-Cartesian substance dualism* may be found in my *Subjects of Experience* (Cambridge: Cambridge University Press, 1996) and my *Personal Agency: The Metaphysics of Mind and Action* (Oxford: Oxford University Press, 2008).

⁶ Some of these advantages are explained more extensively in my *The Four-Category Ontology*, Part III. However, the logical aspects of my position are developed most fully in the present study, which for that reason alone constitutes an indispensable adjunct to *The Four-Category Ontology*.

Finally, I argue that when it comes to the question of precisely which sorts of things exist, our inquiries must be guided by a judicious mixture of *a priori* metaphysical principle and *a posteriori* scientific theory-construction.⁷ Such an approach, I maintain, will entitle us to claim to be ‘carving nature at the joints’ without pretending to unwarrantable infallibility in such matters.

In most of what remains of this introduction, I shall focus on certain important topics which crop up repeatedly throughout the study, and which accordingly find no concentrated and exhaustive treatment in any one place. Two of these topics are associated with alternative readings of the deliberately ambiguous title of the first version of this book, *Kinds of Being*. On one reading of that phrase, it is intended to convey my wish to defend the thesis that the verb ‘to be’ has a variety of uses, or may play a variety of different logical roles. On the other reading, it is intended to highlight two other pivotal contentions of this study. The first of these is that particular objects are individuatable and identifiable only as particulars of this or that *sort* or *kind* – there are no ‘bare particulars’.⁸ The second is that the notions of ‘individual’ and ‘kind’ are mutually dependent, with neither being in any sense more fundamental than the other – a corollary of which I take to be that individuals and kinds are ontologically on an equal footing, at least in the sense that neither may be reduced to the other, even though their manners of existing may obviously differ.

The Varieties of ‘Is’

I distinguish between the following four uses of ‘is’ as a copula. (1) The ‘is’ of *attribution*, as in ‘Socrates *is* wise’ and ‘Grass *is* green’. (2) The ‘is’ of *identity*, as in ‘Napoleon *is* Bonaparte’ and ‘Water *is* H₂O’ (at least on one common reading of the latter). (3) The ‘is’ of *instantiation*, as in ‘Mars *is* a planet’ and ‘A horse *is* a mammal’. And (4) the ‘is’ of *constitution*, as in ‘This ring *is* gold’ and ‘A human body *is* a collection of cells’. I do not, however, claim that all of these uses of ‘is’ are equally fundamental from a logical point of view. I regard the ‘is’ of attribution as being logically

⁷ This kind of relationship between metaphysics and empirical science is something that I recommend and defend more generally in my *The Possibility of Metaphysics: Substance, Identity, and Time* (Oxford: Clarendon Press, 1998), Chapter 1.

⁸ The *Oxford English Dictionary* does not have an entry for ‘individuatable’, nor indeed for the uglier ‘individuatable’, but such a word is clearly needed. I form the adjective ‘individuatable’ from the verb ‘individuate’, by analogy with the formation of the adjective ‘separable’ from the verb ‘separate’, and from the adjective ‘individuatable’ I form the noun ‘individuability’.

redundant, a relatively superficial feature of the English language. As for the ‘is’ of constitution, I suspect that it, too, is not logically irreducible, although I shall commit myself to no definitive analysis of constitution statements in this study. But the other two uses of ‘is’ so far mentioned I do consider to be logically primitive, even if for some purposes the ‘is’ of identity may effectively be defined in terms of the ‘is’ of instantiation.

Now, this still leaves one other important use of ‘is’ to which I have not yet alluded: the ‘is’ of *existence*, as in ‘The Dodo *is* no more’. I take this use of ‘is’ also to be logically primitive, but I do not follow current orthodoxy in identifying its role with that played in symbolic logic by the so-called (but in my view misnamed) existential quantifier, ‘ \exists ’.⁹ That is to say, I do not regard ‘is’, in the sense of ‘exists’, as being a *second-level* predicate, although relatively little in this study depends crucially on my taking it to be a first-level one. One thing that I should especially stress in this connection, however, is that I most emphatically do *not* wish the title of this study to convey the impression that I postulate different *kinds of existence*, as opposed merely to different *kinds of thing that exist*. ‘Exist’ is univocal. This, it should be noted, is not inconsistent with my acceptance, a few moments ago, that individuals and kinds may enjoy different *manners* of existing, for this was not intended to imply any ambiguity in the term ‘existence’. Rather, what I intended to accede to was such relatively uncontroversial claims as that concrete individuals exist at specific times and places, whereas kinds, being universals, are not spatiotemporally localized in their existence.

Individuals, Kinds, and Realism

As I have just said, I hold that there are no ‘bare’ particulars, only individual instances or exemplars of certain sorts or kinds – *tokens* of certain *types*, in another terminology. No doubt lip service is customarily paid to this thesis by many if not most modern philosophers, but I do not think that its far-reaching implications are even yet sufficiently appreciated by more than a few. I also hold, as a corollary of this thesis, that the notions of an ‘individual’ and of a ‘sort’ or ‘kind’ are opposite sides of a single conceptual coin: each is understandable only in terms of the other. Individuals are necessarily individuals *of a kind*, and kinds are necessarily kinds *of individuals*. In consequence, I maintain that realism with regard to individuals, or particular objects – the belief, in my opinion correct, that they may exist independently of the human or indeed any other mind – implies

⁹ This is a point on which I have changed my mind since the publication of *Kinds of Being* in 1989. I explain why in Chapter 4 below.

realism with regard to sorts or kinds. I cannot, then, accept John Locke's famous contention that 'All Things, that exist, [are] Particulars' and that '*General and Universal*, belong not to the real existence of Things; but *are the Inventions and Creatures of the Understanding*'.¹⁰

Realism with regard to sorts need not, however, be unqualified. Perhaps only *natural* kinds need to be accorded a wholly mind-independent ontological status – although this, of course, raises the thorny problem of precisely how we are to draw an objective distinction between natural and non-natural kinds. I shall come to this in a moment. Observe, however, that even granting the general connection between individual and sortal realism, to deny the reality of non-natural kinds (such as artefactual kinds) does not entail denying the reality of individuals instantiating those kinds, so long as the individuals in question can be regarded as also instantiating one or other real, natural kind. Thus, even if *tables* do not constitute a real kind, an individual table might still be acknowledged to be a real particular if it could be identified as, say, a tabular-shaped collection of pieces of wood. My own view is that such an identification would be incorrect, however. If this means that my kitchen table does not really exist, then so be it! Perhaps indeed it is a sort of fiction.¹¹ But whether artefactual kinds are in fact unreal is, I should stress, an issue on which I remain agnostic in this study, although I shall commonly talk *as if* they are real.

With regard to the distinction between natural and non-natural kinds, my own view is that the crucial distinguishing feature of natural kinds is that they are subjects of *natural law*. Laws of nature, I contend, are expressed by statements concerning sorts or kinds, although derivatively they also concern particulars inasmuch as the latter instantiate one or another sort or kind.¹² And the kinds that they concern are, precisely in virtue of that concern, *natural* kinds. Thus *gold* qualifies as a natural kind because there are laws governing its form and behaviour – such as that it is weighty, ductile, malleable, soluble in aqua regia, and so forth. Similarly, *mammals* constitute a natural kind, in virtue of there being such distinctively mammalian laws as that mammals are warm-blooded and that they suckle their

¹⁰ See Locke, *An Essay Concerning Human Understanding*, III, III, 1, and III, III, 11.

¹¹ This seems to be the position of Peter van Inwagen in his *Material Beings* (Ithaca, NY: Cornell University Press, 1990). For an interesting alternative approach, which retains realism concerning artefacts, see John Heil, *From an Ontological Point of View* (Oxford: Clarendon Press, 2003), Chapter 16.

¹² In *Kinds of Being*, I said at this point that laws of nature are *propositions* concerning sorts or kinds. Now, however, I would prefer to say that laws are the *truthmakers* of natural law statements. I say much more about truthmakers and truthmaking in my *The Four-Category Ontology*, especially Part IV.

young. From these examples, incidentally, it will be apparent that I see a close connection between laws and the *dispositional* features of things – a connection that is explored extensively in Chapters 9 and 11 below. By contrast with the case of these natural kinds, there are no natural laws about tables or books or other such artefactual kinds.

Semantics, Metaphysics, and Necessity

At many points in this study, I make claims to the effect that certain propositions variously constitute *semantic* truths, *conceptual* truths, *metaphysical* truths, *necessary* truths, or *a priori* truths. Something therefore needs to be said about how I understand the status of and relationships between these ways of characterizing propositions. The fact is that I have no fully worked-out theory of such matters, although I do have views concerning some of the implications that any such theory should have. My realist predilections in metaphysics persuade me to regard metaphysical truths as revealing fundamental, and often necessary, features of a largely mind-independent reality. At the same time, I am uneasy with, because more than a little mystified by, the idea of metaphysical necessities that are not ultimately *a priori* in character. This is despite the fact that at some places in this study I do not challenge the currently popular notion of a *posteriori* metaphysical necessity.¹³ *Natural* or *physical* necessity is another matter, I believe, and I am content to explicate this in terms of a *posteriori* natural law.

Such a position inevitably raises profound questions concerning the very possibility of metaphysical knowledge and its relationship with empirical scientific inquiry and theory-construction – questions which, for the most part, I do not directly tackle in the chapters that follow.¹⁴ It also raises questions concerning concept-formation and the connection between metaphysics and the semantics of natural language. With regard to these latter

¹³ The modern notion of a *posteriori* metaphysical necessity is, of course, due in large measure to the work of Saul A. Kripke: see his *Naming and Necessity* (Oxford: Blackwell, 1980). I discuss it critically in a number of places, including my ‘On the Alleged Necessity of True Identity Statements’, *Mind* 91 (1982), pp. 579–84, my ‘Identity, Vagueness, and Modality’, in José L. Bermúdez (ed.), *Thought, Reference, and Experience: Themes from the Philosophy of Gareth Evans* (Oxford: Oxford University Press, 2005), pp. 290–310, and my ‘A Problem for A Posteriori Essentialism Concerning Natural Kinds’, *Analysis* 67 (2007), pp. 286–92.

¹⁴ However, my current views about such matters are most fully set out in my *The Possibility of Metaphysics*, Chapter 1, and my *The Four-Category Ontology*, Parts I and III.

questions, one thing that I would wish to emphasize is that conceptual truths, and their embodiment in the semantic structures of our native tongues, are not just for us to make up as we will. They are not for the most part merely the expression of more or less arbitrary stipulative definitions or culture-bound conventions. How we do and should conceptualize the world is substantially constrained by the way the world is, quite independently of our values and interests. And hence to the extent that metaphysics deals in conceptual truths it may at once claim to be addressing the nature of reality and profitably utilize the method of linguistic analysis – although I by no means subscribe to the view that the analysis of ‘ordinary language’ exhausts the business of philosophical investigation and readily concede that the structure of language is, on its own, a very uncertain guide to the structure of reality.

However, we must surely also concede that if our conceptual scheme is moulded by the way the world is, then this can ultimately only be because it reflects our experience of the world – or, if not always just our own experience, then perhaps also that of our evolutionary forebears. And this brings us again to the question of the relationship between metaphysics and empirical science. Here I should say that I see the proper relationship between scientific and metaphysical thinking as being one of complementarity and cooperation, rather than one of opposition and rivalry. Both have as their ultimate aim a closer coincidence between the way we think of the world and the way the world is: in short, both are concerned with the pursuit of objective truth. But, as I see it, metaphysics and empirical science differ crucially in their attitudes towards the content of experience. For the scientist, experience is a source of evidential support for speculative explanatory hypotheses, and as such its content is accepted relatively uncritically, even if it is often at least partially interpreted in the light of prevailing scientific theory. For the metaphysician, by contrast, the content of experience – and, more especially, the categories and relations that serve to structure that content – are themselves the target of critical inquiry and systematic explication. In taking this stance, I align myself in some respects with a Kantian view of the aim and scope of metaphysical thinking, although many of the metaphysical theses advanced in the following chapters are much more Aristotelian than Kantian in character and spirit.¹⁵

To conclude, then: because of their quite different attitudes towards the content of experience, metaphysics can help both to underwrite some of

¹⁵ As I explain in my *The Possibility of Metaphysics*, Chapter 1, I disagree fundamentally with the transcendental idealism of Kant and wholeheartedly endorse Aristotle’s metaphysical realism. What is needed for progress in metaphysics, I believe, is a judicious mixture of the insights of Kant and Aristotle.

the theories of empirical science and yet also to curb the wilder speculations of scientists and the ambitions of some of them to claim a monopoly of truth and understanding. Metaphysicians cannot afford to ignore developments in scientific theory, but they only promise to render themselves foolish in the eyes of posterity by slavishly accepting current scientific orthodoxy.

New Developments

In preceding sections of this introduction, I have said much about the distinction between ‘individuals’ and ‘sorts’ or ‘kinds’. I have also made it clear that I regard sorts or kinds as being *universals*, whereas the individuals of which I have spoken are *particular objects* that are instances of – that *instantiate* – such sorts or kinds. However, since writing *Kinds of Being*, I have come round to the view that not all particulars are particular *objects* – that is, items that, in an older terminology, might be described as being *individual substances*. I now believe that we have to include in our ontology the items that many contemporary philosophers call *tropes*, but which I prefer to call – in deference to an older tradition – *modes*.¹⁶ Another traditional term for such items is ‘individual accident’, and some modern philosophers call them ‘particularized properties’ or ‘property instances’. Calling them property *instances* implies – correctly, as I believe – that they are instances of property *universals*, with the further implication that these universals are to be distinguished from those that are instantiated by particular *objects*, that is, from *sorts* or *kinds* as I understand the latter.

What we have in place now, then, is nothing other than the *four-category ontology* to which I have alluded in earlier pages, my conversion to which is the most significant change in my metaphysical thinking since I wrote *Kinds of Being*.¹⁷ This is the ontology that we find briefly sketched in the opening passages of Aristotle’s *Categories*, the foundational text for

¹⁶ For an important modern account, see Keith Campbell, *Abstract Particulars* (Oxford: Blackwell, 1990). The term ‘trope’ we owe to D. C. Williams. I do not favour the term ‘abstract particular’, because one prevalent philosophical use of the adjective ‘abstract’ has the implication that the items that it describes – for example, *numbers* – do not exist in space and time, whereas tropes are typically not thought of in this way. For further discussion, see again my ‘The Metaphysics of Abstract Objects’.

¹⁷ I first explicitly announced my allegiance to this ontology in my *The Possibility of Metaphysics*, pp. 203–4. The ontology is, of course, the subject of my later book, *The Four-Category Ontology*.

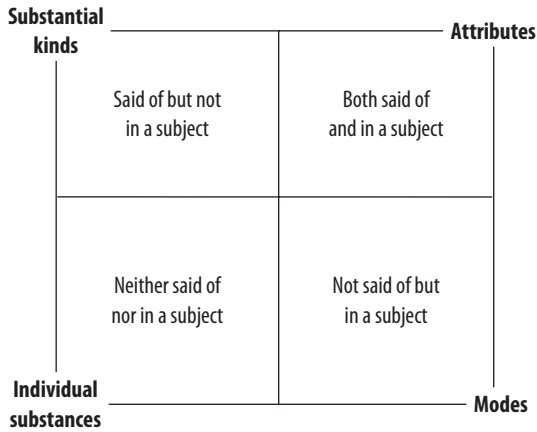


Figure 1 The Aristotelian Ontological Square, version I

all subsequent systems of categorial ontology.¹⁸ It may be most perspicuously represented by a version of the diagram that is known as ‘the Ontological Square’, shown below in Figure 1.¹⁹ The terms designating the corners of the Square in Figure 1 are not translations of Aristotle’s own terms for the items in question in the *Categories*, but are nonetheless traditional ones. In particular, Aristotle spoke of ‘primary’ and ‘secondary’ substances in the *Categories*, where I have used the terms ‘individual substance’ and ‘substantial kind’ respectively. But he makes it perfectly clear that what he regards as being ‘secondary’ substances are precisely the *species* and *genera* (that is, the *sorts* or *kinds*) of ‘primary’ substances, and that the latter are particular *objects*, such as a particular horse or a particular table.

As will be seen from Figure 1, Aristotle considers that substantial kinds or species are ‘said of but not in a subject’, that attributes are ‘both said of and in a subject’, that modes are ‘not said of but in a subject’, and that individual substances are ‘neither said of nor in a subject’. I confess that I am not myself entirely happy with this way of explicating the relevant differences between entities belonging to the four different categories, partly because ‘said of’ ostensibly expresses a *linguistic* rather than a metaphysical

¹⁸ See Aristotle, *Categories and De Interpretatione*, trans. J. L. Ackrill (Oxford: Clarendon Press, 1963).

¹⁹ We owe this name for the diagram to Ignacio Angelelli: see his *Studies on Frege and Traditional Philosophy* (Dordrecht: Kluwer, 1967), pp. 12–15.

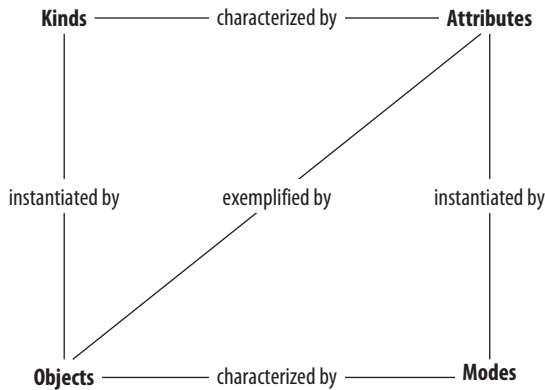


Figure 2 The Ontological Square, version II

relation and partly because the meaning of ‘in a subject’ is somewhat obscure, being suggestive of a *spatial* relation which seems inappropriate in at least some cases. Anyway, whatever may be the virtues or drawbacks of Aristotle’s version of the Ontological Square, my own preferred version is somewhat different and is displayed in Figure 2.

It may be observed that in Figure 2 I have abbreviated ‘substantial kinds’ to ‘kinds’ and have replaced the somewhat archaic ‘individual substances’ by ‘objects’. These are merely terminological niceties and nothing much hinges on the choice of labels for the four corners of the Square. What is more significant is that the key relationships between entities belonging to the different categories are differently expressed in my version of the Square – and are expressed there purely in terms of two fundamental *metaphysical* relations, *instantiation* and *characterization*. Kinds are characterized by attributes and instantiated by objects, attributes characterize kinds and are instantiated by modes, modes characterize objects and instantiate attributes, and objects are characterized by modes and instantiate kinds.

It will be noticed that my version of the Square also includes a ‘diagonal’ relationship between objects and attributes: the former, I say, *exemplify* the latter. However, I do not regard exemplification as being a *fundamental* or *primitive* metaphysical relation, like instantiation or characterization, since I regard it as coming in two different varieties – ‘dispositional’ and ‘occurrent’ – each of which is a different ‘resultant’ of instantiation and characterization, the difference consisting in the *order* in which it is ‘composed’ out of these two relations. To be more explicit: an object *O* exemplifies an attribute *A* *dispositionally* when *O* instantiates some kind, *K*, that is characterized by *A*; and an object *O* exemplifies an attribute *A* *occurrently*