The title misleads, for the greater part of this book is a systematic exposition of the ontology that Lowe has developed in recent years. It is principally an exercise in metaphysics, a demonstration of possibility by elegant example, rather than a more detached discussion of the nature and possibility of metaphysics: this fact may disappoint some readers, and cheer others.

In his first chapter, however, Lowe does address himself to the question of how metaphysics is possible. He takes just six pages to dismiss four rival conceptions of metaphysics. 'Relativism' is the view that truth, reason and metaphysicians are inescapably culture-bound; 'Scientism' is the view that science is our only means of investigating the world; 'Neo-Kantianism' is the view that metaphysics is the study of our thought about the world; 'Semanticism' is the view that metaphysical questions can be resolved only by recourse to the theory of meaning. These pages have the air of a manifesto: Lowe makes his objections plain, but could not expect to sway adherents of these rival pictures.
His positive account of the nature of metaphysics is more detailed and runs as follows. Through investigation of fundamental structures and categories, metaphysics aims to discover what is metaphysically possible, in order that experience might tell us what is actual. What is metaphysical possibility? We can distinguish the strictly logically possible (that which is consistent with the laws of logic) and the conceptually possible (that which is consistent with the laws of logic together with definitions of non-logical terms) from the metaphysically possible (that which obtains in some world in which the laws of logic hold true). So, for example, it is strictly logically possible that water is not H₂O, and it is conceptually possible that water is not H₂O, but it is not metaphysically possible that water is not H₂O, for there is no possible world in which water is not H₂O.

So how is metaphysics possible? On one reading, the question asks how there can be distinctively metaphysical truths. To this, Lowe's answer is clear: there are truths about metaphysical possibility and necessity, distinct from truths about strict logical or conceptual possibility, and distinct from truths about what is actual. But there is a second reading of the traditional question: how can we come to know metaphysical truths? It is less clear how Lowe would answer this epistemic question. Indeed, many of those who reject his conception of metaphysics, whether or not they fall into one of the four camps he dismisses, will be motivated by an inability to see how metaphysical knowledge could be possible if it must concern metaphysical possibilities.

The real substance of this book, however, lies in the ontology defended in later chapters. Before considering one central feature in more detail, I will simply list some of the commitments of Lowe's system. In condensing, I have retained simple conclusions and eliminated complex arguments, so the result may seem rather stark.
Nevertheless, I hope at least to have indicated the range and allegiances of the book. A key feature is that the ontology is very generous, but also very hierarchical: the world contains a great many sorts of thing, but not all are created equal.

**Things.** Objects, in a usefully restricted sense of the term, have determinate identity conditions, and can be counted. Quasi-objects, like electrons, do not have fully determinate identity conditions, but can be counted. Quasi-individuals, like portions of stuff, have determinate identity conditions but cannot be counted. Non-objects, like tropes, do not have determinate identity conditions, and they cannot be counted, but nevertheless they may exist.

**Properties.** Particulars cannot be instantiated. Concrete particulars, like horses, are instances of kinds, like *horse*, which are substantial universals. A concrete particular is not itself an instance of any property, but it has modes, tropes, or ways it is, like a particular brownness, and those modes are instances of non-substantial universals, like *being brown*. Both substantial and non-substantial universals are abstract, which is to say that they exist outside of time. But there are no uninstantiated universals.

**Numbers.** Numbers are kinds which have sets as their instances. Numbers are abstract universals, and sets are abstract particulars. Numbers exist only if they are instantiated, that is, only if there are sets, and there can be no sets unless there are concrete things to be members of sets. So there can be no numbers without concrete things, but numbers exist necessarily, so necessarily there are some concrete things, which exist in time.

**Substances.** A substance is not dependent for its identity on anything else. A composite substance, like a horse or a clock, has parts. But it is not dependent for its identity on those parts, and is thus not identical with the mereological sum of its parts.
Non-composite substances include persons, who are simple mental substances, and, perhaps, sub-atomic particles, which may be simple physical substances.

*Time*. The notions of past, present and future are indispensable to the metaphysics of time, although this does not entail that there are properties of being past, present or future. There can be no time without change. But there can be no change without something that endures through change, so there can be no time without enduring things. If there is persistence, then there are simple substances, whose persistence is ungrounded. So if there is time there are simple substances. We have seen that if there are numbers there is time, so if there are numbers there are persons, particles or other simple substances.

As even this hasty summary shows, this is a very rich book, to which I cannot begin to do justice in this review. Lowe expounds these claims and others, and, of course, he provides arguments which I have simply passed over. His book deserves to be read carefully by anyone interested in any of the many subjects he discusses. Here I will merely discuss the notion of *identity-dependence*, upon which some of Lowe's arguments turn.

It is central to Lowe's account that certain entities are ontologically dependent on others: smiles upon faces, sets upon their members and so on. In contrast, substances do not depend upon anything else. So what is ontological dependence? Lowe first considers a simple, natural definition: \( x \text{ depends for its existence upon } y =_{df} \text{ Necessarily, } x \text{ exists only if } y \text{ exists.} \) He and I have different objections to this definition. Lowe is concerned that this simple existential dependence will sometimes be symmetrical. For example, the life of Socrates could exist only if Socrates existed, and, symmetrically, Socrates could exist only if his life did too. But Lowe wants ontological dependence to be asymmetric. My objection, on the other hand, concerns
necessarily existing objects. On this simple definition, everything will depend for its existence upon the number two, for nothing could exist unless the number two did.

Lowe refines the definition of dependence. The first part of the new definition is this: \( x \) depends for its existence upon \( y \) \( =_{df} \) Necessarily, the identity of \( x \) depends on the identity of \( y \). What is identity dependence? Roughly, says Lowe, the identity of \( x \) depends on the identity of \( y \) when \textit{which} thing of its kind \( y \) is fixes (or at least helps to fix) \textit{which} thing of its kind \( x \) is. For instance, the identity of an assassination is at least partially fixed by the identity of the person assassinated. This cannot just be the claim that \( x \) could not be the thing it is unless \( y \) were the thing it is. This latter says merely that \( x \) could not exist if \( y \) did not, since nothing can exist without being the thing it is. We have already rejected this simple definition of existential dependence.

So Lowe builds more into the definition: the identity of \( x \) depends on the identity of \( y \) \( =_{df} \) Necessarily, there is a function \( F \) such that it is part of the essence of \( x \) that \( x \) is the \( F \) of \( y \). So, for example, a given direction depends for its identity and thus its existence upon some line, since it is part of the essence of the direction to be \textit{the direction of} that very line. The notion of essence invoked here owes something to Kit Fine, and is an especially restrictive notion. In particular, not everything which is necessarily true of an object can be a part of its essence, on this account.

For example, there is a function \( F \) such that necessarily, if Socrates exists he is the \( F \) of two: Socrates is the thing such that it is identical to Socrates and two exists. We could replace 'is identical to Socrates' with any other feature uniquely and necessarily possessed by Socrates (if there are any). Similarly, we could replace 'exists' with 'is less than three' or any other feature necessarily possessed by the number two. If we liberally allowed that it was not just necessarily true that this function holds between Socrates and two if Socrates exists, but that it is of the essence
of Socrates that he stands in this relation to two, then, on Lowe's definition, Socrates
would depend for his identity upon the number two

Similarly, without a restrictive notion of essence, Lowe's definition will not
produce the asymmetries which he demands of it. Part of the essence of a certain life
is that it be the life of Socrates: thus the life depends for its identity upon the man. To
prevent symmetry, Lowe must insist that it is not part of the essence of Socrates that
he be the liver of that life, despite admitting that Socrates could not have existed
without living that life. Lowe also mentions unit sets: apparently it is of the essence of
a unit set that it contain its member, whilst it is not of the essence of an object that it
belong to its unit set, although the object could not exist without belonging to that set.

Any necessary co-existents will require similar legislation; an interesting
equivalent is that of directions and lines (taken, as Lowe takes them, to be one-
dimensional parts of space). A given direction depends for its identity upon "its"
lines, for it is of the essence of that direction that it be the direction of those lines. Is it
also of the essence of the direction that it be perpendicular to certain other lines? And
why isn't it of the essence of a line that it have the direction it does, and be
perpendicular to a certain other direction?

This notion of essence seems to be connected with the order of human
understanding: perhaps we can understand what Socrates is without understanding
that he must belong to his unit set, whilst we cannot understand what that unit set is
without understanding that Socrates is its member. But I at least have no firm
intuition about the order of understanding the concepts of a line and of a direction,
and no firm intuition about whether these could or must be grasped simultaneously.
Indeed, the same seems true of lives and their livers. It is not clear that objects are
never symmetrically connected through their essences, even on this restrictive notion
of essence, so it is not clear that objects are never mutually identity-dependent. Lowe
countenances simple substances, objects which depend for their identity upon nothing
at all, and it is hard to see why pairs of objects should not be mutually dependent, a
self-supporting team.

The question of whether identity-dependence must be asymmetrical is of more
than technical interest, for several of Lowe's more general arguments turn on the
claim that two objects cannot be mutually identity-dependent. For example, he argues
that particulars cannot be bundles of tropes, partly on the grounds that either a given
trope has its identity independently of the bundle, or else the bundle has its identity
independently of its constituent tropes, and that neither of these options is satisfactory
(chapter 9). Escaping the dilemma by supposing that the tropes and the bundle might
be mutually dependent is dismissed as leading to a 'fatal circularity'. Similarly,
in the course of arguing that there must be concrete objects, Lowe denies that there
could be a world which contained only universals and sets: 'For in such a world the
sets depend for their existence [and identity] upon the universals [since the universals
are set-members] and the universals depend for their existence [and identity] upon the
sets [since the sets instantiate the universals], creating a vicious circle which deprives
both universals and sets of the possibility of existence.' (p.254)

The notion of asymmetrical ontological dependence also plays an important
rhetorical role for Lowe, in that implicitly it appears to tame what might otherwise
seem an extravagant ontology. As we have seen, Lowe admits universals and tropes,
substances and sums, numbers and sets, locations, selves and smiles. Readers with
sparser tastes might have been comforted to think that these were arranged in a
hierarchy of dependence, that at base few were genuinely independent beings. But
Lowe's system may have to survive unsupported by an asymmetrical dependence relation. And it may well be strong enough to do so.

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