I present an ontology of the material world that is consistent with ten constraints, ten logical and metaphysical theses to which I am strongly committed. These are (1) Identity should be understood in a "classical" or "absolute," rather than a "relative," sense; (2) Material things endure through time; they are neither four-dimensional entities extended in time nor three-dimensional cross-sections of such; (3) Principles of "standard logic" (such as the law of the excluded middle or the transitivity of identity) should be universally valid, or, at worst, should fail only in bizarre science-fiction cases that have never actually occurred; (4) Modal statements about individuals should not be understood counterpart-theoretically; (5) Matter is ultimately particulate; (6) Two objects cannot be composed of the same proper parts at the same time; (7) Subject-predicate sentences whose predicate is a "mental" predicate (such as 'is in pain' or 'is thinking about Vienna') can express truths only if their subject-term denotes a thinking thing; (8) There are thinking things, and at least some of them (ourselves) are living animals; (9) What there is cannot be a matter of stipulation or convention; (10) Whether certain objects add up to or compose a "larger" object depends on nothing besides their intrinsic properties and the spatial and causal relations that they bear to one another.

The ontology of the material world that is presented in this book is developed in the course of an attempt to answer the "Special Composition Question": Under what conditions do things add up to (make up, compose) a thing. (Certain things "add up to" or "make up" or "compose" a given thing just in the case that all of them are parts of it, and no two of them have a common part, and each of its parts shares a part with one or more of them.) To answer the Special Composition Question (SCQ) is to state, using only non-mereological language, when composition occurs. (SCQ is distinguished from the "General Composition Question": What is composition? This question would be answered by an analysis of composition, an analysis that was reductive in the sense that it made no use of mereological concepts. I do not attempt to answer the General Composition Question. I am inclined to think

that no reductive analysis of composition is possible, owing to the fact that mereological terms—'part', 'whole', 'composite', 'sum', 'overlap', 'compose'—form a "closed circle' that cannot be broken into by definition or analysis.)

Any answer to SCQ must be either Moderate or Extreme. There are exactly two Extreme answers: Universalism and Nihilism. According to Universalism, composition "always" happens; it happens, so to speak, automatically. Universalism holds that for any things (no two of which have a common part) there is something that they compose. According to Nihilism, composition never happens: two or more things never compose or add up to anything. (Nihilism is equivalent to the thesis that nothing has proper parts.) "Moderate" answers hold that sometimes, under certain conditions, two or more things compose something, and that sometimes two or more (non-overlapping) things do not compose anything. Moderate answers differ from one another about what the conditions under which composition occurs are.

The Extreme answers are wrong. Nihilism is wrong because we are living, thinking animals, and composite objects therefore exist. Universalism is wrong because, if it is right, then ten years ago I was a cloud of atoms spread throughout the biosphere; but ten years ago, I was a living animal.

Any of the more obvious Moderate answers is wrong. It is, for example, not the case that things compose a thing if and only if those things are in contact with one another, like blocks in a pile. If it were correct, then there would be something (something shaped like a statue of two people shaking hands) that came into existence when two people shook hands; but nothing does.

I propose the following answer to SCQ: things compose a thing if and only if their collective activity constitutes a life. A life is a special kind of self-maintaining event into which particles of matter are constantly being drawn, and from which, normally after a fairly short period of participating in the life, they are expelled. Thus, the only composite objects are living organisms. Moreover, if the activity of certain things at \( t_1 \) constitutes a life and the activity of certain things at \( t_2 \) constitutes a life, then the object that the former things compose at \( t_1 \) is identical with the object that the latter things compose at \( t_2 \) if and only if the life that the activity of the former constitutes at \( t_1 \) is the same event as the life that the activity of the latter constitutes at \( t_2 \).

According to this "Proposed Answer," therefore, there are no "substances existing by art," such as tables and chairs, and there are no "substances existing by chance," such as stones and bits of stick. Nevertheless, sentences like 'Some of her chairs are very good nineteenth-century copies of Chippendales' can, when uttered in the course of the ordinary business of life, express truths. These words should be understood as strictly parallel to the following words, which we imagine spoken by Copernicus: "According to
my theory, the sun does not move. Nevertheless, sentences like ‘It was cooler in the garden after the sun had moved behind the elms’ can, when uttered in the course of the ordinary business of life, express truths.” This thesis is discussed in more depth in my reply to Eli Hirsch.

This ontology of the material world provides an interesting perspective from which to view a wide range of philosophical problems, such as those raised by the Ship of Theseus, the Brain Transplant, and the facts of Commissurotomy. Furthermore, it provides a solution to Peter Unger’s “Problem of the Many.” (This solution is discussed in my reply to Terence Horgan.) This ontology, however, is based upon a Moderate answer to SCQ, and most Moderate answers imply that both identity and existence are vague. (We shall consider this point only as it applies to the Proposed Answer, but all interesting Moderate answers face the same problem.)

Consider identity. Since it may be indeterminate whether a life that is going on at one time is the same event as a life that is going on at another, it follows that it may be indeterminate whether a certain object that exists at one time is identical with a certain object that exists at another time. But Gareth Evans has argued that indeterminate identity is impossible. For suppose that \( a \) is indeterminately identical with \( b \); it is evident that \( b \) is not indeterminately identical with \( b \); and, therefore, by the principle of the non-identity of discernibles, \( a \) and \( b \) are not identical. If this reasoning is valid, then any ontology of the material world that implies that indeterminate identity is possible is wrong. It is, however, possible to set out a plausible set of inference-rules for reasoning about indeterminate identities according to which Evans’s argument is invalid.

Consider existence. Since it may be indeterminate whether the activity of certain objects constitutes a life, it may be indeterminate whether those objects compose something. Suppose that there are objects without proper parts (“simples”) and that one set of simples is such that it is indeterminate whether its members compose something, and that every other set of simples is such that it is definitely true that its members do not compose anything. Then it is indeterminate whether there is a composite object. According to the “standard” theory of vagueness or indeterminacy, this can be so only if something is such that it is indeterminate whether it is composite. In the present case, this condition is not met. Every simple is definitely non-composite, and it is not definitely true that there is anything else; and, in any case, anything that is not a simple is definitely composite. The “standard theory” endorses the inference-form ‘It is indeterminate whether something is \( F \); hence, something is such that it is indeterminate whether it is \( F \)’. The standard theory is therefore in conflict with the Proposed Answer, and, in fact, with all interesting Moderate answers to SCQ. It is, however, possible to set out a plausible set of inference-rules governing the interaction of ‘it is inde-
terminate whether’ and the existential quantifier, according to which this inference-form is invalid.

The standard theory locates the source of indeterminacy of truth-value in language (in vague general terms), just as what was once the standard theory of necessity located the source of necessity in language. It may be that the “linguistic theory of vagueness” is destined to go the way of the linguistic theory of necessity.