

## Foreword

Philosophers—at any rate, analytical philosophers—respect three things above all others: logic, common sense, and science. But few philosophers believe that logic, common sense, and science always speak with one voice. That common sense and science can be in conflict is very nearly a philosophical truism. (And such is the prestige of science that those who believe that common sense and science can be in conflict invariably say, “So much the worse for common sense.”) That logic can be in conflict with either common sense or science, however, is very far from being a truism; most philosophers would probably say that logic provides a framework that can comprehend both common sense and science. Nevertheless, there are those who believe that logic—“orthodox” logic, textbook logic—and science can be in conflict. For example, those who believe that, whatever the logic textbooks may say, quantum mechanics demands a logic in which conjunction does not distribute over disjunction. (And such is the prestige of science that those who believe this say, “So much the worse for orthodox logic.”) But what about logic and common sense?

Very few analytical philosophers have been willing to suppose that our commonsense beliefs could be refuted by logic alone. Those who deny that our commonsense beliefs are subject to refutation by logic alone are fond of cautionary tales: Zeno and motion; Spinoza and alternative possibilities; McTaggart and time; Bradley and numerical diversity. The deliverances of common sense—that things really move, that matters might really have been otherwise, that time is real, that there really does exist a plurality of things—come to us with such authority (the argument goes) that only the immense authority of science has any hope of contending with it. It is not (the argument continues) that common sense can “refute” logic. It is not that when logic and common sense come into conflict, common sense must prevail. It is rather that logic and common sense cannot come into conflict. If someone claims to be able to show that the deliverances of common sense are self-contradictory—as did Zeno, Spinoza, McTaggart, and Bradley—the only reasonable conclusion is that the alleged demonstrations of this contradiction contain some logical error. Sometimes we may be able to identify this error. (Zeno thought that an infinite number of non-overlapping spatial intervals laid end to end could not, as a matter of logic, compose a finite interval. He was wrong. Even if the modern analysis of the real line does

not correctly describe the structure of spatial intervals in the physical world—that's as may be—the very fact that this modern analysis is internally consistent shows that *logic* does not endorse the thesis that an infinite number of non-overlapping spatial intervals laid end to end cannot compose a finite interval.) But even if we cannot identify the error, we may be confident that there is one, for it is absurd to suppose that the deliverances of common sense are self-contradictory, and it is not absurd to suppose that a philosopher sitting in an armchair and spinning out deductions has made a mistake. Or so many would say. So, perhaps, the majority of analytical philosophers would say. (And among those who would not say this, there are those who would say that if orthodox logic and common sense are in conflict, it is orthodox logic that must be rejected.) But a growing number of analytical philosophers are willing to follow the argument where it leads—even when it leads to the conclusion that our commonsense beliefs must be rejected because they are logically incoherent.

The essays in this collection concern a recent tendency of some philosophers to think that there is an at least *prima facie* conflict between logic and common sense, a conflict that involves material objects and their parts and their identity across time. Common sense (whatever exactly common sense may be) seems to tell us that the world contains lots of “material objects,” that the resources of human thought and language are up to the task of identifying vast numbers of them, that these material objects endure through time (and that our everyday statements concerning the identity of material objects across time are in the main true), that most of these objects have parts that are themselves material objects (and that we are frequently able to identify many of these parts and are frequently able to determine which things they are parts of), that objects can sometimes gain or lose parts, and that no two material objects can occupy the same space at the same time. Common sense, I say, seems to tell us all these things. Can they all be true? If they cannot, can this impossibility be demonstrated? Can it in fact be shown that these propositions are mutually inconsistent?

To see why someone might think that these propositions were indeed mutually inconsistent, consider the puzzle of Tibbles the cat and Tib the cat-part. (The puzzle of Tibbles and Tib is due to David Wiggins and may be found on pp. 6–7 of the present collection. It is a simplified version of Peter Geach's “puzzle of Tibbles and the 1001 cats.” Geach [pp. 309–310 below] claims to have “developed” the puzzle from a *sophisma* of William of Sherwood. A version of the puzzle was known to the Stoic Chrysippus [died c. 206 B.C.]). Can reflection on this puzzle lead us to any important metaphysical conclusions? In his essay “Temporal Parts of Four-Dimensional Objects” [Chapter 17], Mark Heller argues that reflection on the puzzle should lead us to conclude that material objects are not three-dimensional things that endure through time but are rather four-dimensional things,

extended in time as well as in space. Heller identifies “five unpleasant alternatives” that, he argues, confront any philosopher who regards material objects as three-dimensional. (Heller’s remarks are addressed to a different but equivalent version of the puzzle; I have adapted his formulation of the “unpleasant alternatives” so that they apply to Wiggins’s version.) They are as follows:

- (a) There is no such material object as Tibbles (i.e., either Tibbles does not exist or he is not a material object).
- (b) There was (before Tibbles’s tail was cut off) no material object in the space that was exactly occupied by all of Tibbles but his tail.
- (c) No material object can undergo a loss of parts.
- (d) There can be distinct material objects in the same space at the same time.
- (e) Identity is not transitive.

If we assume that the denials of (a)–(d) are endorsed by common sense, and if we also assume that common sense tells us that cats and their parts are not four-dimensional objects, then (if Heller is right) a commonsense view of cats and their parts is inconsistent with the transitivity of identity (and is therefore inconsistent with Leibniz’s Law, or the principle of the indiscernibility of identicals, of which the transitivity of identity is a logical consequence). And this result can be fairly described in the words “Logic is in conflict with common sense.”

It is to problems like the problem of Tibbles and Tib that the essays in this collection are directed. These problems are of the first importance for metaphysics. To discover how to deal with them would be to achieve a metaphysical understanding of material objects. But the problems are deep and difficult, and it is by no means easy to discover how to deal with them. Many philosophers have hoped that they could find ways to eliminate all reference to various “problematic” entities from their metaphysical theories: qualities, propositions, regions of empty space, surfaces, pains. One of the lessons of the essays in this collection is that material objects may well be as problematic as propositions and pains.

Nothing I could say in this brief foreword would do justice to the philosophical richness of this volume, to the range of fascinating metaphysical problems and arguments that the authors are able to uncover simply by philosophical reflection on cats, statues, and piles of trash. I can, however, do justice to the quality of the essays. Leaving aside my own essay (whose quality I am not in a position to make an objective judgment about), these essays are the products of first-rate philosophical minds working at a very high level. (I look forward with real pleasure to teaching a course in which *Material Constitution: A Reader* is the central text.) The collection is both

unique and timely—timely because it is about a set of problems that many very good philosophers are thinking about right now. My hope is that it will serve to introduce the next generation of philosophers to a very rewarding area of philosophical reflection.

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