

*Book reviews*

strengths of this little book is that it pre-empt the majority of the reader's concerns. Should logical consequence be transitive and reflexive? What logic does the argument of Logical Pluralism use? And, most importantly, is this really interesting anyhow?

The fact is that it is. After reading *Logical Pluralism*, the logician who is defending her account of logic will hesitate to merely point out a competitor's flaws. The linguist who is frustrated with the mathematical bias of classical logic can take comfort that perhaps it is only really good for mathematics. And all philosophers can rejoice that the essence of their discipline – the art of argument – may be more flexible than they had previously assumed. This all makes for good philosophy: an intriguing but simple idea; well proposed; preliminary objections overturned; stunning consequences... and much work left to do.

Sally Riordan

*Physical Relativity*, Harvey R. Brown, Oxford University Press, 2006. 239 pages.

Albert Einstein was not the first to derive the equations at the heart of special relativity. Others before him knew the equations of length contraction and time dilation, but what was remarkable about Einstein – or so the story goes – is that he first came to terms with their implications. The difficult birth of the new theory could not be helped, for scientists

at the time were fixated by the ether, the mysterious substance postulated to pervade space, and were therefore unable to correctly interpret the equations that sat before them. Einstein realised the error, did away with the ether, and engaged with the problem in a more abstract way. The result was a world in which the peculiar behaviour of moving bodies was a property of space-time and not of matter itself. Or so the story goes.

*Physical Relativity*, by Oxford philosopher Harvey R. Brown, reviews the work of Einstein's predecessors and claims that it is not primarily their reliance upon the concept of the ether that distinguishes their thought from Einstein's. The crucial difference is that these scientists wished to construct the equations of special relativity from considerations of the underlying physical phenomena in order to obtain, not just the equations themselves, but an explanation of why they are true. The nineteenth-century Irish physicist George Fitzgerald is the best example: he hoped to understand length contraction by uncovering the relevant causal mechanisms that operate between molecules of matter. Harvey Brown takes care to explain how this, so called, constructive approach differs from that of Einstein's 1905 seminal paper on special relativity, in which length contraction and time dilation are derived mathematically from co-ordinate transformations.

Harvey Brown suggests that it is time to approach relativity by its physical causes because the constructive approach of men like Fitzgerald is more enlightening. Brown begins by searching through the archives to unpick the reasons that led to the original formulation of the theory of special relativity: Einstein was restricted by the lack of knowledge of inter-molecular and sub-atomic forces at the time and inspired by the postulate based formulation of thermodynamics. Furthermore, evidence suggests that even Einstein came to regret his method, and a handful of other thinkers are also called upon to support Brown's thesis. Finally, *Physical Relativity* considers whether taking a different approach to special relativity will have an adverse effect on its role as a limiting case of general relativity; Brown's claim is that it does not.

What is special about this book is that as it makes its grand tour, interweaving historical and theoretical facts with ease, it challenges many common misconceptions in the field. Brown explains, for example, how simultaneity is a convention under Newtonian mechanics, and he clarifies the differences between the many notions of the principle of relativity. Students and professionals alike will benefit from the clarifications, and are likely to enjoy the tale along the way.

Sally Riordan

*Libertarianism without inequality*, Michael Otsuka, Oxford University Press, 2005 (2003). 158 pages.

*Libertarianism without inequality* by Michael Otsuka, now published for the first time in paperback, is a revival of John Locke's political philosophy in the best sense of the word. Using Locke's master-ideas – the right of self-ownership and the belief that political associations and economic transfers can only be established by voluntary consent – Otsuka sets himself the task of retrieving an entire system of political thought that is “cleansed of the regressive ideological commitments of Locke's (and more recent) times”. (p.2) The result is a provocative book that sometimes fails to meet these ambitious goals, but nevertheless shows an original possibility of bringing together libertarianism with a strong commitment to egalitarian principles.

The book consists of three parts, dealing with property rights; punishment and self-defence; and the constitution of political societies. In the first section, Otsuka, who is a Reader in Philosophy at University College London, positions himself between the philosophers G.A. Cohen and Robert Nozick. Although their conclusions differ substantially, both Cohen and Nozick agree that the libertarian appeal to self-ownership, and concerns about equality and distributive justice are mutually exclusive. For Nozick this was a reason to argue that con-