BOOK REVIEW


I. SOME BACKGROUND REMARKS

Graham Priest is (in)famous for his advocacy of dialetheism—the view that there are statements that are both true and false (in the same respects, same time, etc.). Indeed, it was pretty much he who brought this view to the attention of modern anglophone philosophers with his argumentation that it was the only viable solution to the semantic paradoxes, such as the Liar Paradox. He has also applied this idea and the accompanying logical theory (LP, the ‘Logic of Paradox’, the propositional portion of which has the same truth matrices as Kleene’s ‘strong’ three-valued logic, but with both $T$ and $I$ designated values) to a number of other philosophical topics, such as vagueness. (Priest insists that in LP there are only two truth values, $T$ and $F$, but sentences are allowed to take both values simultaneously. The possession of both truth values simultaneously is what plays the role of $I$ in the Kleene logic.) This book is yet a further foray into the realm of the inconsistent, this time focusing on a variety of ontological topics that seem to resist solutions of the ‘ordinary’ sort.

Some (uncharitable) readers will be reminded of the adage that when one’s only tool is a crowbar, everything looks like it needs to be ripped apart. Here it seems that Priest’s main tool is true contradictions, and so everything looks to him like a paradox. But in Priest’s defence, it should be noted that philosophical argumentation has not resolved the issues discussed in this book over the course of philosophy’s history: the topics are, it seems, correctly described as paradoxical. Just as the Liar Paradox seems to deny that the liar sentence can be true (because it then would have to be false) and seems to deny that such a sentence can be false (because it then would have to be true), so too do the topics covered in this book seem to invite the conclusion that any solution will have to be simultaneously both $X$ and not-$X$ (for different values of $X$, depending on the topic). Priest’s vivid imagination encourages us
to see possible benefits to such contradictory solutions. And his development of formal models for such inconsistencies takes away the criticism that the view cannot be made logically coherent.

Dialetheism in most of Priest’s earlier works was attributed to statements that were said to be both true and false...and thus the contradictions arose in statements about the world. In the present work, this is made to apply more directly to objects in the world—some of which he claims are contradictory objects. (Although it is true that most of Priest’s previous work is about the intelligibility of contradictory statements, he has also defended the intelligibility of contradictory objects—with his ‘Sylvan’s Box’ (Priest 1997) being the most compelling, to my mind.)

This book concentrates on various aspects of the venerable problems associated with oneness, or unity. What is it for one object to be composed of many objects? What is it for a list of words to be a statement? What makes a subject be joined with a predicate? The book contains three parts: Unity, In Plato’s Trajectory, and Buddhist Themes, all of which in some way invite speculation on questions about what it is to be one.

So, what objects are contradictory, according to the present work? Well, there are the objects everything and nothing; there are gluons and of course there is the one. As is usual in his writings, Priest’s discussions of these topics here are exhilarating and insightful—but controversial and challenging to take entirely seriously. Just as usually, they will excite loud, perhaps even vehement, opposition discussion from the traditionalists of the area. For instance, it is easy to imagine disbelief that everything and nothing should be objects—perhaps by considering Lewis Carroll’s ridicule of taking nobody to be a person. Or as Socrates/Plato puts the traditionalist position in one of the areas that Priest discusses:

If someone could show that the kinds and forms have in themselves opposite properties, that would call for astonishment. But if someone should demonstrate that I am both one thing and many, what’s astonishing about that? ...My right side is different from my left, so I am many ...but I am one person among the seven of us, ...This is nothing astonishing ...I would be much more impressed if someone were able to display this same difficulty in things that are grasped by reason. (Plato Parmenides 129c; Priest p. 105)

Priest takes on this particular traditionalist challenge in part II of his book. Needless to say, he thinks that Socrates/Plato should be astonished.

Parmenides should also be astonished, according to Priest, who introduces nothing as the fusion (in the sense of mereology) of the empty set, thus showing, he says, that nothing can indeed be thought of and said. As Priest puts it, ‘Nothing is what you get when you fuse no things. There is nothing in the empty set, so its fusion, nothing, is absolute absence: the absence of all objects’ (p. 98). Nothing is not a proper part of anything, and has itself no proper parts. So, nothing is not identical to itself. So: it is not the case that anything is
identical to nothing. ‘But of course’, Priest continues, ‘$\forall x \ x = n$ (i.e., something is identical to nothing). (That is a logical truth.) ...So nothing both is and is not an object’ (p. 98). (Speaking of nothing, we might remark that Priest’s treatment of the empty object in mereology is very unusual. Those (few) mereologists who propose an empty object—usually to simplify the axiomatics by generating a Boolean algebra—count the empty object as a part of every object. After all, part of is just the Boolean ordering relation. Since anything other than the null individual has at least one part (viz., itself) which is not part of the null individual, it follows that the null individual is a proper part of anything else. It is not at all clear why Priest’s null individual, nothing, has in addition the property of not being a proper part of anything—in addition to the more usual property of being a proper part of everything else. Could it be a feature of Priest’s crowbar?)

There are many such intriguing—indeed, astonishing—statements throughout the book. But when faced with such a variety of fascinating topics to review, one must be selective, and I am going to select the problem of physical unity. Many of the other topics Priest investigates build upon the ideas and concepts developed first in this area. Even right at the beginning of the physical unity discussion one can see relations to Bradley’s Regress, Frege’s ‘concept horse’ problem, the issue of what makes a statement out of a set of words, and other venerable puzzles.

Not many serious scholars will claim to have a unified solution to all these puzzles—and then to add on that such a solution will also resolve Parmenidean and Platonic worries as well as explicating Buddhist thought? Well, that’s truly astonishing!

II. PHYSICAL UNITY

The problem of physical unity is tackled at the beginning of this book. For example, what makes a bunch of bricks be a house? One might say that it is the arrangement or configuration of the bricks; one might say that it is the form (in some technical sense) that is manifested by the bricks; one might say that it is some causal interplay amongst the bricks; one might say it is the mental design that the architect had. But now Priest’s crowbar detects a contradiction:

Whatever the parts are, though, and whatever form is, the form is something that binds the parts into a whole. But now we have a contradiction. It is, after all something, an object. (I have just spoken about it.) On the other hand, it cannot be an object. If it were, the collection of parts plus the form constitute a plurality, just as much as the original. So the problem of binding would not be solved. (p. 9)

So what is the answer? What can be the reason, rationale, cause, etc. that would make it be that a number of parts is a single whole? Priest’s answer:
There must, therefore, be something which constitutes \( [p_1, p_2, \ldots, p_n] \) as a single thing, a unity. Let us call it, neutrally ... the gluon of the object, \( g \). Now what of this gluon? Ask whether it itself is a thing, object, entity? It both is and is not. It is, since we have just talked about it, referred to it, thought about it. But it is not, since if it is, \( p_1, p_2, \ldots, p_n, g \) would appear to form a congeries, a plurality, just as much as the original one. If its behaviour is to provide an explanation of unity, it cannot simply be an object. (p. 9)

(It might be noted that elsewhere in the book Priest says that the principle ‘if you can talk about it, then it is’ shows only that the item being talked about is an object—that is, there is a world (possible or impossible) where the object is exemplified. It does not follow that such an object exists (in the actual world). It is not so clear to me how the line of argumentation of the just-quoted paragraph fits with Priest’s more general discussion of the force of the ‘talk-about’ argument.)

Priest uses \( \mathfrak{A} \) as a universal quantifier. Like \( \mathfrak{E} \), which is used for the existential quantifier, it does not carry any supposition about the actual existence of items that are being quantified over. (It presupposes, or records, their being—or if ‘being’ itself has incorrect Russellian connotations, perhaps objecthood would be preferable; but whatever it is called, this is a different notion than existence, for Priest.) These are embedded into a second-order version of \( LP \), so that properties (etc.) can be quantified over. My colleague, Allen Hazen, who has a fine way of converting technical terminology into the vernacular, remarks that ‘second-order \( LP \) is seriously weird, bizarre and pathological’, thinking perhaps of such features as that it doesn’t allow conditional proofs, that it not only tolerates, but is, inconsistent, and that it requires non-standard models. Well, be that as it may, Priest presents a version of second-order \( LP \) in \( \S 2.10.1 \) of this book, and refers readers to his contribution in Gabbay & Guenthner (Priest 2002) for further details. However, the presentation in that article is rather different from the one in the present book: the semantics in the 2002 article is analogous to the ‘standard’ semantics of classical second-order logic, but that in the present book is more like the ‘general’ (=Henkin) semantics. Both have their quirks. But I think that the present review is not an appropriate place to try to detail them.

Identity is a defined notion, using second-order \( LP \) and what appears to be an innocuous definition (p. 19):

\[
 a = b \iff \forall X (Xa \equiv Xb).
\]

The unusual feature of identity comes out with the interpretation of \( \equiv \) in Priest’s \( LP \). If both \( A \) and \( B \) are simply True (that is, without also being False), then \( A \equiv B \) is True (simply). And if they are both simply False, then \( A \equiv B \) is True (simply). If one is simply True and the other simply False, then \( A \equiv B \) is simply False. But If \( A \) is simply True, while \( C \) is both True and False, then \( A \equiv C \) is both True and False; similarly if \( B \) is simply False while \( C \) is
both True and False, then $B \equiv C$ is both True and False. It can be seen from this that chaining of $\equiv$ can’t be valid: in the scenario where $A$ is simply True, $B$ is simply False, and $C$ is both True and False, both of $A \equiv C$ and $C \equiv B$ would be both True and False, and yet $A \equiv B$ would be False (simply). In $LP$, being both True and False is a designated value (‘since such a statement is in part True’), but being False simply is not; thus such an argument would be invalid.

One should note that, in order for this to actually define identity and difference (of individual objects) there must be sufficient members in the domain of monadic properties to do the job. For example, since each property has an extension and an anti-extension, and each object can be in one or the other or both, it follows that the definition of (non-)identity in terms of property-possession would require there to be at least two properties in order to distinguish four objects, three properties to distinguish ten objects, and generally $n + 1$ properties to distinguish $3^n + 1$ individuals. Further, the properties have to be distributed appropriately for this minimal number to be appropriate. Priest says (p. 28; see also the discussion in §2.7) that he is assuming ‘properties of some fairly robust metaphysical kind’ (perhaps along the lines of Armstrong or Bigelow?—although they didn’t countenance properties that are both had and not had by the same object, so far as I am aware). Anyway, it seems that (non-)identity becomes an empirical matter: What properties are there? Which objects manifest which properties in what ways?

The definition of identity in terms of a second-order Leibnizian Law in $LP$ has important consequences for identity, chief among which is the fact that identity is not transitive (although it is reflexive and symmetric, since $\equiv$ in $LP$ is reflexive and symmetric), as can be seen now from the definition and the interpretation of $\equiv$. In turn, this gives Priest a formal basis for the otherwise bewildering view that an object that has two distinct parts (which together form the one object) is made up from the two parts, $a$ and $b$, together with a gluon $g$. Not only is $g$ not (simply) a further object (in which case there would be three parts of the initial object), but it becomes identical with any object to which it is ‘glued’: $g = a$ and $g = b$, despite the continuing fact that $a \neq b$!

The non-transitivity of identity is a crucial linchpin of Priest’s theory throughout the book, informing almost every point that is made about the apparently divergent topics discussed. In his introduction (pp. 16 ff) to the idea I have been describing in the last few paragraphs, he considers what is required to avoid the regress arguments involving ‘parts’, saying that there can be ‘no metaphysical space’ between the gluon and the items being glued. And he illustrates it with this picture:
Priest says of this (changing his Chinese/Japanese character to $g$):

‘Of course, $g$ must be identical with $b$, $c$, $d$, for exactly the same reason <sc.: that $g$ must be identical with $a$, viz., so as to have no metaphysical space between them>. Thus, $g$ is able to combine the parts into a unity by being identical with each one (including itself).

...It should be immediately obvious that the relation of identity invoked here will not behave in the way that identity is often supposed to behave. In particular, the transitivity of identity will fail. We have $a = g$ and $g = c$, but we will not have $a = c$.’

Similarly, Priest thinks of the ‘problem of universals’ as sharing the same solution.

Take...a bunch of white things, $a$, $b$, $c$, . . . . Consider $a$’s whiteness, $b$’s whiteness, and so on. One can think of these as the parts of a single totality. (They have a unity in a way that the whiteness of $a$, the roundness of $b$, the heaviness of $c$, do not.) What unifies them is the prime gluon of this totality, and this we may take to be the property of whiteness. ...Thus, we have the following picture: $w$ is whiteness itself, and $w_{x}$ is $x$’s whiteness.’ (p. 44).

A universal, then, is the gluon of a bunch of pins [=‘property instantiations’, i.e., tropes]. This means that a universal can change its properties over time (worlds). As the collection of white objects changes, so do the pins that constitute the bunch; so the gluon whiteness will be identical to different things at different times (worlds).
Those of us who were given Catholic catechism instruction—as well as scholars of the early and medieval history of the Church—will probably recognize the Athanasian Creed doctrine here: ‘The Father is Almighty; the Son Almighty; and the Holy Ghost Almighty. And yet they are not three Almighties; but one Almighty. So the Father is God; the Son is God; and the Holy Ghost is God. And yet they are not three Gods; but one God.’ This is encapsulated in the *Shield of the Trinity* diagram, which looks much like Priest’s diagram and explanation. (Thanks to *Wikipedia* entries ‘The Athanasian Creed’ and ‘Shield of the Trinity’. One might also note Priest’s citation of Abelard on p. 58fn5.)

Who would have predicted that Catholicism and Buddhism had this sort of feature—and the non-transitivity of identity—in common!?! Now there’s something really astonishing!!

III. FORMAL TOPICS

For those who would prefer to see the formal background to the various claims of Priest, let me mention that he has

1. background technical sections in his Preface, explaining *LP* and paraconsistency generally;
2. a discussion of inconsistent models, and an application to material equivalence and identity in chs 2.3 and 2.4;
3. a technical appendix in ch. 2.10 (‘A Formal Semantics’, which gives second-order LP, Identity, Substitution of Identicals, Gluon Models, and LP with S5 modality and a constant domain). §2.10.4 (Gluon Models) is perhaps the most interesting and formally intricate part of the book. It is here that Priest gives innovative logical constructions to show how there can be formal interpretations that allow for objects behaving like gluons are supposed to do. This section contains the crucial ‘Gluon Theorem’, which is the formal underpinning for the theory of gluons, and the ‘Conservation Theorem’. The latter theorem proves that an LP interpretation I and the constructed gluon model \( \hat{I} \) have the relation that \( I \models A \iff \hat{I} \models A' \), where \( A' \) is a particular translation of \( A \) into the language of \( \hat{I} \).

4. a technical appendix in ch. 5.13 (‘Second-Order LP\( _m \)’: a non-monotonic logic whose inference relation agrees with classical logic when the premises are consistent);

5. a technical section of ch. 6.13 (‘An Interlude on Nothing’, defining the empty mereological fusion and giving a four-valued boolean algebra as a model);

6. in ch. 5, a rather full discussion of the ‘Substitutivity of Identicals’ (which Priest thinks fails in general but has interesting applications), giving the peculiar status of gluons, and recalling the discussions (in chs. 2.6 and 2.10.3) of the difference with the ‘Identity of Indiscernibles’ (which Priest thinks is false—or maybe both true and false).

But there are also a few relevant formal topics that aren’t discussed enough in the book under review, for my taste:

a. The status of being ‘True and not also False’—i.e., \( \text{True-simply} \)—is quite vexed in LP and other dialethic logics (and similarly for \( \text{False-simply} \)). It seems that there is no way to generate such a set of formulas, since neither the semantics nor the syntax seems able to describe just that set. This topic is not discussed in the present work, although many claims are made in the book that seem to require that there are such sets of formulas as the \( \text{True-simply} \) and the \( \text{False-simply} \). (For formal worries about this, see for example Shapiro 2004).

b. Priest has long employed the ‘inclosure schema’ as a characterization of the types of paradoxes that call for a dialetheistic solution. In this book, the schema is introduced in the preface as a part of the background ‘What One Needs To Know’. The inclosure schema arises when there is an operator \( \delta \), a totality, \( \Omega \), such that whenever \( \delta \) is applied to any subset, \( X \), of \( \Omega \), of a certain kind (one that satisfies some condition, say, \( \psi \)), it appears to deliver an object that is still in \( \Omega \), though it is not in \( X \). A contradiction arises if \( \Omega \) itself satisfies \( \psi \). Priest claims that all the standard paradoxes of self-reference are inclosure paradoxes, and in this preface
he goes through the Russell paradox and König’s paradox, while later he mentions Berry’s paradox. Priest also employs the inclosure scheme in the case of vagueness, fission, tolerance, and similar non-logical areas. (See ch. 5 for examples of non-logical paradoxes where it might apply.) It should be noted, however, that not all theorists in the field think that the inclosure schema can work correctly outside of the realm of the semantic paradoxes. (See, e.g., Beall 2014.)

IV. A (PERSONAL) FINAL REMARK

Despite my antecedent admiration for the works of Graham Priest, when I saw the description of this book my reaction was ‘OMG, we’re going to do the Unity of the Proposition, apply it to Plato, and then to Buddhist thought?? Priest has really gone off the deep end now!! It must have to do with moving to the US!’ Well, in the end I was astonished to see just how much unity can be brought to different parts of philosophical thought with the rather simple(?) expedient of denying the transitivity of identity. And further astonishment comes from trying to consider reasons to insist that identity be transitive in all cases of its use—even in the case of inconsistent objects (which, of course, are another source of astonishment).

Astonishment is a nice reaction to have upon reading a nicely written book, especially one that takes a new and previously untried approach to venerable topics.

REFERENCES


University of Alberta, Canada

Francis Jeffry Pelletier