Graham Priest
Doubt Truth to be a Liar
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REVIEW

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This is a book about dialetheism, the theory that there are some truth-bearers (sentences, propositions, or what have you) of the form α and $\neg\alpha$ such that both of the pair are true. As Graham Priest puts it, "Dialetheism is the view that some contradictions are true..."[1] This book does not, however, offer a sustained defense of dialetheism nor a rigorous exploration of the appropriate logic for a dialetheist to endorse. Those subjects have been sufficiently dealt with in Priest's prior work and they play only a minor role in the present book.[2]

Instead, this book is concerned with the relation between dialetheism and the philosophical notions of truth, negation, rationality, and logic. It is meant to supplement the dialetheist project by explaining where and how the commitment to dialetheism intersects with our conceptions of these core philosophical notions. Because it is not principally concerned with the motivations for dialetheism and because it is not too heavy-handed with the formal logic, this book will appeal to philosophers of many stripes.

There are four parts to the book. The first part, on the notion of truth, includes discussion of such topics as whether Aristotle has posed a threat to dialetheism by his defense of the Law of Non-Contradiction that "opposite assertions are not simultaneously true"[3], whether any amongst a handful of popular theories of the nature of truth are incompatible with dialetheism, and whether truth is trivial.

The second part of the book is devoted to the notion of negation and includes discussion of such topics as the nature and behavior of negation, whether 'Boolean Negation' is a coherent logical operation,

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[1]Priest, 2006, 1.
[2]See especially *In Contradiction*, Dordrecht: Martinus Nijhoff, 1987.
[3]Kirwan, 1993, 11^{b}14.

and the relation between negation, the speech act of denial, and the cognitive state of rejection. Included in chapter four is the briefest sketch of a positive argument for dialetheism motivated by the constructibility of semantic paradoxes in natural language, but it is really just a sketch whose force requires substantial background knowledge of the literature on formal theories of truth to be appreciated.

The third part of the book concerns the notion of rationality and includes discussion of such topics as whether consistency is a necessary condition for the rationality of a belief set or the rationality of a revision to a belief set, and whether empirical science could be inconsistent.

The fourth part of the book, on logic, discusses such topics as the revisability of our beliefs about logic, the nature of validity, and the esoteric question of logic pluralism. The arguments of these last chapters proceed almost entirely divorced from considerations unique to dialetheism and will be of great interest to any logician.

I will highlight three especially interesting lines of thought that run throughout the book. The first concerns how the dialetheist should conceive of their participatation in philosophical debate. The motivating concern can be thought of as follows: since the dialetheist accepts the possibility that any contradiction may be true, then even if they express $\neg\alpha$ they might, for all we know, still believe that α is true. It seems that they cannot unequivocally disagree with anyone, so they cannot take part in the philosophical debate.

Priest argues that the dialetheist has as good a reason as anyone to believe that truth is non-trivial (not everything is true). The argument is really quite straightforward. If you want to know what it is like to have inconsistent sensory information just consider certain visual illusions. For example, the 'waterfall effect' occurs whenever one looks at a moving object for a long time, *e.g.* a spinning wheel, and then looks at a stationary scene. What one sees is that the scene "...appears to be moving in the opposite direction [of the wheel]. But a point at the top of the visual field, say, does not appear to change place."[4] Since this perceptual experience is illusory rather than veridical, it is not really the perception of a contradictory situation (a situation where there is a point that is both moving and not moving). Rather, what such illusions illustrate is what it would be like to perceive an inconsistent situation if there were one. So, if everything were trivially true we should expect to have similar experiences all the time, but we don't. That is how we know it is not the case that everything is trivially true.

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[4]Priest, 2006, 60.

When it comes to communicating their (non-trivial) commitments, Priest says that the dialetheist should rely on the distinction between the speech acts of assertion and denial. In general, these speech acts respectively communicate the acceptance or rejection of a belief, so to disagree with someone the dialetheist just has to deny what that person believes. The cost is that conceptions of negation and denial come apart for the dialetheist in a way that they don't for the classical logician. When a classical logician believes that $\neg\alpha$, they are committed to believe that α is not true and thus reject it, while the dialetheist does not acquire such a commitment. This lends some credence to the original concern, but not much: it simply entails that it is a less straightforward matter for the dialetheist to deny a belief than it is for the classical logician.

A second interesting line of thought that runs throughout the book is that rationality derives from the familiar concept of theory choice. On this approach, even if consistency is a criterion of rationality, the holistic nature of theory choice entails that it is not a *necessary* condition for the rationality of any particular belief set. This has interesting implications for the nature of belief revision and for the compatibility of dialetheism with the coherence theory of truth.

The irrationality of inconsistency is thought by many to follow from the self-evidence of the validity of 'explosion', a rule of inference according to which contradiction entails triviality ($\alpha, \neg\alpha \vdash \beta$). If this inference form were valid, then an inconsistent belief set would commit the believer to everything, hence it would be irrational to have inconsistent beliefs. Significantly, while explosion holds in classical logic, it is invalid in paraconsistent logic. This brings into sharp relief that the validity of explosion is far from self-evident or "true by definition"[5] and, hence, it is far from obvious whether the inconsistency of a theory is always a damning criticism.

In chapters seven and eight, Priest develops the holistic model of rationality mentioned above then goes on to extend it to a theory of belief revision that is substantially more nuanced than the popular AGM account. The basic idea is that each member of a belief set can be assigned a range of rationality indices determined both by its degree of satisfaction of a criterion of rational theory choice and by the weight of the importance of that criterion relative to the others. Given a belief set and a new piece of information, this method will yield a partial ordering of potential revised belief sets. The most rational

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[5]Priest, 2006, 122.

revision in such a situation will be to adopt any of those belief sets which are maximal in the ordering.

The theme of rational theory choice comes up in one other place, with surprising results. In discussing theories of the nature of truth, Priest says that coherence theories generally subscribe to the rationale that criteria of truth cannot appeal to a mind-independent reality. What is true, according to the coherence theorist, is whatever falls into the most rational (perhaps ideally rational) set of beliefs. Since an inconsistent belief set can be the most rational choice, the coherence theorist has to accept at least the possibility that truth is inconsistent. Where the verdict of the coherence theorist ultimately lies is a matter of assessing specific belief sets, specific theories, but this argument shows that even a coherence theorist could end up being a dialetheist.

The third interesting line of thought in this book is most closely related to the basic commitments of dialetheism. Priest argues for an approach to logic that is motivated by semantic considerations and 'canonically' applied to explain the function of certain operations on and relations between truth-bearers (sentences, propositions, or what have you) in natural language. He uses this method to give an account of negation that is non-classical, then goes on to leverage this account against the meaningfulness of what he calls 'Boolean Negation'.

By the lights of this reviewer, some of these arguments fall short of being fully satisfying. The thread that runs through chapters four and five begins with the observation that the logical operation of negation functions as a contradictory-forming operator. Priest says that contradictories are characterized by the intuitive description that, for all pairs of contradictories, we must have one of the pair, but we cannot have both. One might reasonably be tempted to read this as an admission of defeat for dialetheism, lending support instead to the traditional, classical semantics for negation. That is not how Priest sees things. He claims that this characterization of negation just demands that certain sentence forms be regarded as logical truths:

LEM: $\vdash \Box(\alpha \lor \neg\alpha)$ for all α
LNC: $\vdash \Box\neg(\alpha \land \neg\alpha)$ for all α[6]

These *are* logical truths in dialetheic semantics like LP, so Priest is content to say that the dialetheic account of negation defines a genuine contradictory-forming operator.[7] Unlike intuitionist logic, which invalidates the LEM, there is nothing in the intuitive characterization

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[6]Priest, 2006, 78.
[7]See the semantics of Priest, 1987.

of negation to count against the dialetheist. Since both the classical and dialetheic accounts of negation satisfy this characterization, it becomes a separate theoretical question whether negation is explosive, as the classicist believes, or whether it is not, as the dialetheist believes.

In chapter ten, Priest offers an analogy between the disciplines of geometry, arithmetic, and logic, "the three great *a priori* sciences of Kant's *Critique of Pure Reason*".[8] Each of these disciplines has its pure theories and each has a canonical application for which some pure theory may be better suited than the others. In the case of geometry, it was a surprise to many that the pure theory of Euclidean geometry was ultimately proven to be inadequate as an applied theory of the nature of physical space. Priest says that "in the case of logic, we need to relate the theory to our practices of inferring".[9] That is to say, the purpose of a pure logic is to describe the valid inferences that underwrite our natural language.

This plays an important role in his account of negation. A *very* rough sketch of Priest's positive argument for dialetheism is this: semantic paradoxes arise from sentences such as "this sentence is not true" which are easily constructed in natural language, so any formalization of natural language semantics needs to take these paradoxes into account. All of the formal accounts of truth which understand truth and falsity to be exclusive (hence understand the languages to which they apply to be consistent throughout) run afoul of so-called 'strengthened' semantic paradoxes. If the formal semantic theory could be expressed in one of the languages to which it applies, these strengthened paradoxes would trivialize that language, thus consistent truth theories cannot be expressed in the languages to which they apply. If a consistent formal semantics were the correct theory of natural language semantics, then the theory could not be expressed in natural language. Since we clearly do express our theories in natural language, it follows that consistent formal semantics cannot describe natural language semantics.

The implication is that (real) truth is inconsistent and some contradictions are true, hence insofar as we think that our language is non-trivial we ought to reject the validity of explosion. Since pure logics are applied to describe valid inference in natural language, the best applied theory will be a logic that invalidates explosion. This leaves us with some form of paraconsistent logic as the best theory of the valid inferences that underwrite our natural language, and an account

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[8]Priest, 2006, 157.
[9]Priest, 2006, 169.

of negation that is what Priest calls DeMorgan Negation (DN), whose truth conditions are as follows:

$\neg\alpha$ is true iff α is false
$\neg\alpha$ is false iff α is true[10]

In the next chapter he leverages this against a more traditional account of negation that he calls Boolean Negation (BN). This account usually assumes a background semantics on which truth and falsity are understood to be exclusive. It is supposed to be a rival account of negation that suits a consistent semantic theory and produces the validity of explosion. The truth-conditions for BN ($) differ from DN in the case of falsity:

$\$\alpha$ is true iff α is false
$\$\alpha$ is false iff α is not true[11]

The problem is that the truth-conditions for BN use negation in the definition. If one assumes DN as the default theory of negation and thus reads the 'not' in "α is not true" as an instance of DN, one cannot derive the validity of explosion from the defined logical operation. Alternately, if one reads the 'not' as an instance of BN, one can derive the validity of explosion at the cost of blatantly begging the question. The lesson is that the dialetheist can deny the coherence of Boolean Negation.

If one looks closely at the details of these arguments one will see that structurally similar considerations are often treated very asymmetrically. To wit, Priest points out that intuitionists argue against the validity of LEM by way of Dummett's *verification constraint* on theories of meaning, but he rejects the weight of this consideration.[12] Yet, in the very next chapter he cites the equally questionable *augmentation constraint* as a perfectly good means for placing the burden on the shoulders of the classical logician.[13] He also claims that intuitionist accounts of negation define mere contrary-forming operators because, on these accounts, one can fail to have either α or $\neg\alpha$ for some α.[14] However, given the way he characterizes sub-contraries (we must have at least one of the pair, but we might have both) it looks like the dialetheic account of negation runs into a similar problem insofar as these conditions hold for some α and $\neg\alpha$ in dialetheic semantics.

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[10]Paraphrasing from Priest, 2006, 96.
[11]Paraphrasing from Priest, 2006, 96.
[12]Priest, 2006, 80.
[13]Priest, 2006, 89.
[14]Priest, 2006, 79.

Priest denies that the dialetheic account of negation defines a mere sub-contrary forming operator because of the fact that LEM and LNC are logical truths in his preferred semantics, but this just serves to bring out the most serious concern of all. His 'intuitive' characterization of negation is presented in a way that is purposefully friendly to the dialetheist project. After all, most people would be shocked to discover that their 'intuitions' about negation are compatible with some contradictions being true. This sort of theory-laden description of a supposedly common-sense assumption is nothing unique to Priest, and perhaps one cannot ultimately hope for anything better when it comes to grounding our basic logical and semantic concepts, but it does make for a line of argument that is unsatisfying in some respects.

Still, one cannot help but be impressed by the ingenuity and variety of inroads taken by Priest to approach the subject of dialetheism. What emerges from this book is a picture in which truth and reason are much less tidy than orthodoxy has supposed them to be, yet in which they are far from arbitrary or vicious. The subjects covered in this book are wide ranging, but they intertwine to clarify some of the wider implications of the dialetheic project. *Doubt Truth to Be a Liar* is a welcome supplement to the existing literature on dialetheism and an excellent springboard for entry into the subject.

References

[1] Christopher Kirwan, *Aristotle, Metaphysics, Books Γ, Δ, E*, 2nd Edition, Oxford University Press, 1993.
[2] Graham Priest, *In Contradiction*, Dordrecht: Martinus Nijhoff, 1987.
[3] Graham Priest, *Doubt Truth to Be a Liar*, Oxford University Press, 2006.

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