Scott Douglas Jacobsen: Let's step into dialetheism. What is it, fundamentally?

Professor Graham Priest: Contradictions are things of the form 'it's raining and it isn't raining', 'I saw someone and I saw no one'. Melbourne could be in Australia and Melbourne couldn't be in Australia'. A dialetheia is a contradiction that is true. And dialetheism is the view that there are such things.

Jacobsen: How does dialetheism change the discourse on the nature of truth?

Priest: There are many views in the history of philosophy about the nature of truth (that it is correspondence with reality, that it is what is verified by experience, and so on). Dialetheism does not change this discussion. In saying that some contradictions are true, 'true' can mean whatever you think it does. However, it has been high orthodoxy in Western philosophy that contradictions *cannot* be true (the Principle of Non-Contradiction). Aristotle locked the view into Western philosophy with what can only be described as poor arguments (as most modern scholars of Aristotle would agree). However, virtually all western philosophers have accepted it since then. (Arguably, there have been some exceptions, such as Hegel. But Hegel's defenders tend to contest this.) Modern dialetheism is a view of the last forty years or so; and it is exactly the view that Principle of Non-Contradiction is wrong.

Jacobsen: With statements as both true and false, how does this alter the construction of formal logic?

Priest: Well, let me keep this as simple as possible. Standard systems of logic are usually based on the assumption that statements are either true or false, not both, and not neither. They also have a notion of negation. The negation of 'the sun is shining' is 'the sun is not shining'. The negation of 'all philosophers are happy' is 'some philosophers are not happy', and so on. If *A* is some statement, logicians write its negation as ~*A*. And the standard assumption is that *A* is true if ~*A* is false, and *A* is false if ~*A* is true. This setup has various consequences. One is that if *A* is any sentence, '*A* or ~*A*' is true. (*A* is either true or false, so one of these must hold). This is sometimes called the *Principle of Excluded Middle*. Another is that '*A* and ~*A*' is false (One or other of these must be false.) This is the *Principle of Non-Contradiction*.

Clearly, if some contradiction can indeed be true, the Principle of Non-Contradiction fails.

Other consequences of the standard set up are not so obvious. An inference is something of the form 'So and so, therefore such and such'. The so and so is called the *premise*, and the such and such is called the *conclusion*. An inference is *valid* if whenever the premise is true, the conclusion must also be true. That is, it can't be the case that the premise is true, and the conclusion isn't. But given the Principle of Non-Contradiction, it can't be the case that something of the form *A* and *~A* is true. So whatever *B* is, it can't be the case that *A* and *~A* is true *and* *B* isn't. In other words, any inference of the form '*A* and *~A* , so *B*' is valid. *Everything* follows validly from a contradiction! This fact is sometimes called by its medieval name, *ex falso quodlibet sequitur*. Modern logicians more often call it by another name, *Explosion*, since it says that once one's information is inconsistent it explodes to deliver everything.

Now if '*A* and *~A*' can be true, it *can* be the case that '*A* and *~A*' is true, and *B* is not true. That is, Explosion is not valid. Modern logicians call systems of logic where Explosion is not valid *paraconsistent* (beyond the consistent).

Jacobsen: What are some classic examples of formal logical statements with a dialetheism counterpart with more sense made through dialetheism than with formal logic in traditional interpretations of the logic?

Priest: Well, there are many of these—though of course they are all philosophically contentions, since dialetheism is. The ones that most people think of first are those connected with the paradoxes of self-reference. The oldest of these is the liar paradox, a sentence that says of itself that it is false. If this sentence is true, it is false; and if it is false it is true. So it seems to be both. A structurally similar but more modern paradox is Russell's paradox. Consider the set of all those sets that are not members of themselves. If this is a member of itself, then it's not a member of itself. But if it isn't, it is. So it seems to be both a member of itself and not a member of itself.

Actually, I think that the most obvious examples of dialetheias concern legal situations. Suppose that a jurisdiction says that all people in class *X* can do such and such, and no person in class *Y* can do such and such. Things are perfectly consistent until and unless someone turns up who is in class *X* and class Y. Then, until the law is changed, that person can and can't (legally) do such and such.

There are many other examples, but let me just give you one more. There are many philosophers whose views entail that that there are certain things that are ineffable—Kant (noumena), Nāgārjuna (ultimate reality), Wittgenstein (form, in the *Tractatus*, Heidegger (being)—and they explain why these things are so. Now, if they can do this these things must be effable as well. So we have a contradiction. Of course, the truth if these particular contradictions depends on the philosophical views in question being correct.

Jacobsen: What are the strengths and weaknesses of traditional logics, paraconsistent logics, and dialetheism-based logic?

Priest: Well, first of all, the standard logic of our day was invented around the turn of the 20th century by Frege, Russell, and others, and is now called 'classical logic'. Next, in the last 60 years have seen an explosion of non-classical logics, driven by many different considerations. Paraconsistent logics are just one class of these. Thirdly, dialetheism is not a kind of logic, but a theory about what kinds of things can be true. It naturally motivates a paraconsistent logic, but one might be motivated to endorse such a logic for reasons other than dialetheism.

The strength of paraconsistent logics is that they can handle inconsistent data, theories, or other information, without these blowing up in one's face. Reasoners seem to do this quite naturally all the time. A weakness is that there do seem to be times when it is correct to reason in a way that is classically correct, but not so paraconsistently. The most obvious sort of reasoning of this kind is when we reason by *reductio ad absurdum*. We assume something for the sake of argument, show that a contradiction follows, and conclude that the assumption was incorrect. A paraconsistent logician owes us an explanation of why this is kosher, when it is.

Jacobsen: If we take formal dialetheism system of ratiocination with the appropriate symbol systems (e.g., ¬, ˜, ∧, ≡, ⊃, ⊥, ∃!, ⊨, and so on), can you provide some formal samples of English sentences or statements, arguments inclusive of the previous sentences/statements as premises, and the dialetheism formal representative counterparts with English-based interpretations of the "dialetheism formal representative counterparts," please?

Priest: Expressing things in a formal language makes things more precise, but it doesn't really change matters of substance, so let's stick to ordinary English. First, a valid inference is one such that if the premises are true then so is the conclusion. Dialetheism affects what sorts of things might *be* true, but it doesn't

affect that understanding of validity. It means some of the premises of an inference can be false as well as true, but that does not affect validity. Consider an inference from '*A* and ~*A*' so *A*. If '*A* and ~*A*' is true, so is *A*; so this inference is valid. It makes no difference if '*A* and ~*A*' is false as well as true.

But this does raise the question of what interesting things might be proved from true contradictions. The place where that question has been most investigated is in the theory of sets. Let *R* be the set of all things that are not members of themselves (as in Russell's Paradox). And let us suppose that it is indeed the case that *R* is a member of *R* and *R* is not a member of *R*. A number of very interesting consequences about sets follow from this. However, many of these involve technical aspects of the theory concerning, for example, higher orders of infinity. This is not the place to go into them.

Jacobsen: What systems build on top of dialetheism or may build on top of dialetheism to advance the research into the system of dialetheism-based logic?

Priest: Well, perhaps the most obvious are theories where paradox lurks. Theories of truth and sets are clear examples, but there are others. There's paradox called the sorites. If someone is sober, and consumes 1cc of alcohol, they are still sober. So start with someone who is stone cold sober. If they consume 1cc of alcohol, they are still sober. So if they consume another cc they are still sober. So if…. So by the time the have consumed 500ccs (5 litres) they are still sober. That's obviously false. You can construct a similar paradox with any predicate like 'sober' which is vague in a certain sense. How to handle this kind of paradox is highly contentious, but certainly there are dialetheic accounts. The idea is that between being sober and not being sober, there is a borderline area where a person is both sober and not sober.

But there are also theories where there are no standard paradoxes, but which allow for formulations where contradictions may arise. These include theories of topology, geometry, arithmetic. It would take several pages to go into these, so I forego this. Some theories in the history of science have used inconsistent mathematics. For example, the infinitesimal calculus from Newton and Leibniz till about the 19th century operated with a mathematics according to which infinitesimals were non-zero (at one point in a computation), and zero (at another). There are, as far as I know, no contemporary scientific theories which use inconsistent mathematics. But we now have many new kinds of inconsistent mathematics, and perhaps some of these will find application in the future. After all, scientist will use any bit of mathematics which appears to deliver the right empirical results.

Jacobsen: Also, as you study paradoxes, what are true paradoxes in the fullest sense - no matter the system of logic applied, if such things exist?

Priest: Well, I'm not really sure that I understand what you mean, but there are many systems of logic—accounts of what follows from what. There is one in which nothing follows from anything. That is, for no *A* and *B* does *A* follow from *B*. In such a system of logic you can't establish anything. *A fortiori*, you can't establish any paradoxes. Of course, that's not a very interesting point. What we want to know is what can be established in the *correct* logic.

Jacobsen: What are philosophy and metaphilosophy?

Priest: The definition of 'philosophy' is a hard philosophical question, and there is no consensus as to the answer. I think that probably the best one can do is to give examples of the sorts of questions that philosophers discuss. Questions like: Is there a god? Is reality always mind-dependent? What is it to be conscious? What is it for an action to be good? How should one live? What is the best way to run the state? What makes something a work of art? How do we know any of these things?

The word 'metaphilosophy' is a relatively new one. Its meaning is somewhat vague, but I guess that a metaphilosophical issue one that reflects on what philosophy is, and how it goes about its business. The question 'what is philosophy?' is a prime example. The term may be a new one, but metaphilosophical questions have always been an important part of philosophy. They are central to discussions in Plato, Hegel, Nietzsche, Wittgenstein—to name just some of the more obvious philosophers who have engaged with such questions.

Jacobsen: How does dialetheism apply in the realm of metaphilosophy? This can set the stage for Part Three.

Priest: Well, the most obvious way in which it applies is that Western philosophers have virtually always taken it as a methodological principle that contradictions are not rationally acceptable. Hence, any philosophical theories that have endorsed contradictions have been rejected out of hand. Clearly, this should not be the reaction of a dialetheist. This is not to say that a dialetheist will accept a contradictory theory. They may well think that a consistent theory of the issue at hand is better. The matter of rational theory-choice is a complex one. The point is that a theory is not to be rejected *simply* because it contains a contradiction.

A small corollary of this is one concerning philosophical hermeneutics. I give one example. The general point is obvious. If one reads texts of Hegel, the most obvious interpretation of various of his views is a dialetheic one. Commentators of his work have often strained to interpret him in some other way, for fear of making him appear irrational. They did not need to do so. They can read his texts in a much more straightforward (and charitable) way. If one tries to force the thought of a dialetheist into the procrustean bed of consistency, what emerges is bound to be a badly distorted view.