Scott Douglas Jacobsen: Thank you for the first and second parts to the interview. Let's begin on some of the more substantive areas of analysis for the paraconsistent logicians. It appears to be a minority position within the professional philosophical community, but it is growing for 40 years, as you noted. Although, it may garner some more attention in form within other domains of discourse and representation, where "representation" comes to mean "modes of thought, i.e., without systematic presentation." Something akin to the logic one might see in some Buddhist philosophy, not an original point. In Part Two, you mention the "high orthodoxy in Western philosophy." How was this orthdodoxy of Western philosophy with the Principle of Non-Contradiction locked into the Western philosophical tradition? Who are the culprits?

Professor Graham Priest: Well, 'culprit' is not really the right word, and you need to distinguish between paraconsistency and dialetheism. A logic is paraconsistent if, according to it, it is not the case that everything follows from a contradiction (The principle that everything follows from a contradiction is now usually called by the name *Explosion*.) As anyone familiar with the history of logic knows, theories of what follows from what have appeared and disappeared in Western philosophy. The earliest such theories were produced by Aristotle and the Stoics. Aristotle's logic (Syllogistic) was paraconsistent. (He points this out himself.) And as far as we can tell, so was Stoic logic. (We have less documentary evidence of that.) Again as far as we know, Explosion surfaces in Western logic in 12th Century France. Thereafter it appears in various guises in Medieval theories of logic. Virually all of Medieval logic is forgotten with the rise of Humanism, and we are back to Aristotelian logic (and so Paraconsistency) for about the next 400 years. Matters change again around the turn of the 20th century when so *called classical* logic was invented by Frege, Russell, and others. According to this logic, Explosion is valid. Classical logic became, and still is, the orthodox logical theory of our day. But from its inception, various of its aspects were regarded by a number of logicians as problematic. So we have seen the flourishing of many so called *non-classical logics*. Modern paraconsistent logics are one kind of non-classical logic, and were developed independently in several different countries (indeed, continents) around the 1960s and 1970s. Since then, they have been developed and studied intensively by many logicians.

Dialetheism is quite different. Dialetheism is the view that some contradictions are true. A number of philosophers before Aristotle were dialetheists. We know that because Aristotle himself tells us so. In a famous passage in his *Metaphysics*, he takes them in his sights, and defends the claim that no contradictions are true—the Principle of Non-Contradiction (PNC). That text really entrenched the PNC in Western philosophy—so much so that no philosopher after him seems to have felt the need to argue for it. There have been some dissenting voices—Hegel is the most obvious; but it is fair to say that the

PNC has been high orthodoxy since Aristotle. That's rather strange, because Aristotle's arguments are pretty bad. The longest is so tangled that it is hard to know how it's supposed to work, let alone that it works. And the others are clearly arguing for something else. (Aristotle appears confused.) This, incidentally, is pretty much the standard view of modern Aristotle scholars. The success of Aristotle's arguments seems to have been more the result of his magisterial authority in the Middle Ages, than of their cogency. Of course, nearly everything Aristotle wrote has been rejected, or at least seriously problematised, since he wrote. The PNC is something of the last bastion of Aristotle's thought, and it is only in the last 40 or 50 years, with the development of modern dialetheism, that its shaky grounds have finally been exposed.

Jacobsen: *Why* have Western philosophers, almost as a matter of course or even of faith, taken on the patrilineal intellectual descent of Aristotle on the Laws of Logic? Is it convenience, not questioning, the way education has developed over centuries, etc.?

Priest: As I explained in the previous question. Aristotlian logic was overthrown when classical logic replaced Syllogistic. The question is better asked about the PNC. As I observed in the last answer, Aristotle's view about everything else have now been overthrown, or at least seriously challenged. Why is the PNC the last of these? I don't know. Something has to be last. In general, philosophers, as a collective body, are pretty good at challenging each other's views. Though there is always a tendency to interpret historical philosophers in such a way as to make them fit in to current ideas. This tends to engender conservativity.

Jacobsen: What sparked this revolution 40 years ago as a formal departure, in larger numbers rather than with a single thinker, from more than 2,000 years of philosophical history and thought about the principles of thought seen in the Laws of Logic inclusive of the Principle of Non-Contradiction?

Priest: You have to understand the revolution that occurred in logic at the turn of the 20th century. This was not just a time when classical logic replaced Syllogistic. It was a time when the tools of mathematics (algebra, formal rigor, etc) had developed to a point where they could be applied to logical theorising. For some time, it was simply assumed that the applications of these techniques delivered classical logic. They do not: they can be equally applied to develop a whole host of non-classical logics, including paraconsistent logics. And the viability of paraconsistent logics undercut many of the

conservative knee jerk reactions against the LNC. Without these developments in logic, I don't think the contemporary dialetheic movement would have been possible.

Jacobsen: On *Explosion* or *ex falso sequitur quodlibet*, the paraconsistent nature of the statements, as shown or given in Part Two. What does this mean for centuries of Western philosophical and, in fact, religious-theological thought, by which I mean systems of thinking applied to their standard domains? How *might* paraconsistent theories begin to envelope more and more of science, e.g., areas of emerging science and mathematics?

Priest: Well, for the most part of the history of Western philosophy, logic has been taken to be paraconsistent, as I explained. Dialetheism is a different matter. It has been assumed that contradictions are always unacceptable. That assumption has to go. That certainly opens up new possibilities, but not as much as one might think. In many cases, to accept an area as contradictory would be entirely *ad hoc*, and not rationally justified.

If inconsistent theories ever come to be accepted in science, I think it will be because a piece of paraconsistent mathematics (of which there are now many, and a growing number, of kinds) seems to give exactly the right predications. This does not mean that the predictions themselves are contradictory. The contradiction could be buried deep in the heart of theory, or about things which are entirely unobservable.

Jacobsen: Are there any examples in American legal history in which a dialetheism situation came forward to amusing effect, in hindsight? For a South African example, one "Coloured" (South African term for mixed black-and-white race person) comedian, Trevor Noah, notes being "born a crime" because of mixed-race heritage in Apartheid South Africa.

Priest: I'm afraid I don't know enough about the legal history of the US (or of any other country, for that matter) to answer this question.

Jacobsen: To the implied question in the statement, "Of course, the truth if these particular contradictions depends on the philosophical views in question being correct." Are these aforementioned philosophical views correct?

Priest: Every philosophical view is contentious—almost by definition. In that way, dialetheism is no different from any other philosophical view. And one may hold a dialetheic view about many different subjects: the paradoxes of self-reference, motion, law, vagueness, the limits of language, the ground of reality. One might well be a dialetheist about some of these things and not others. I have argued for a dialetheist view

about all of these things, so I take these views to be correct. But I think it is fair to say that dialetheism about any topic is still a minority view.

Jacobsen: Why is the shift in thinking about logic second and a theory first important when considering dialetheism? The theory of dialetheism as a motivator for paraconsistent logic to evolve, naturally, for reasons apart from the dialetheism itself. Is this more a sensibility and a philosophical approach than something formal and rigid? Alan Watts' goo compared to prickles.

Priest: Well, dialetheism and paraconsistency are both theories. One is a theory about truth; the other is a theory about validity (what follows from what). In truth, all we ever have are theories about these things. Some theories may achieve consensus for periods of time; but all are fallible, and what is accepted can change over time. As I have said, contemporary dialetheism would not have got off the ground without developments in paraconsistent logic. But dialetheism also provides a reason for taking a paraconsistent account of validity seriously. There is, then, a dialectical interplay between the two. In fact, if one's eyes are open to it, one can see that such a dialectical interplay between logic and metaphysics is a feature of the history of Western philosophy.

Jacobsen: Could "Reasoners," perhaps, be more aptly stated as "Parareasoners"? In that, human beings, given forms of paraconsistent thinking, are more naturally leaning on paraconsistent theories (and the subsequent logic) than classical logic and classical thinking.

Priest: Well, ordinary reasoners don't tend to accept that a contradiction entails everything; and as experimental philosophy has shown, many "ordinary people" are quite happy to accept contradictions sometimes—for example about situations in the borderline area of a vague predicate. But we also know from studies in cognitive psychology (if we didn't know this anyway!) that people often reason badly; and indeed, that they make systematic mistakes. So nothing much follows from that. Logic is not about how people actually reason. That's a topic for psychologists. Logic is about the norms of correct reasoning, and what those are has to be fought out in philosophical debate.

Jacobsen: When can a paraconsistent logician and a classical logician come to common ground with a *reductio ad absurdum*? Can you give an example?

Priest: There are many different paraconsistent logics. However, for the most part, they agree on the fact that classical logic (as expressed with its usual connectives) is correct in consistent situations. Thus, for example, no one has every found it plausible to suggest

that Euclidean Geometry, or Group Theory is inconsistent. So classical logic seems fine there.

Reductio ad absurdum can be formulated in many different, and sometimes non-equivalent, ways. Here is one standard form: Assume *A*, together with some other things. Establish that a contradiction follows. Conclude that *~A*, whilst maintaining the other things. This is a valid classical form of inference. Hence a paraconsistent logician may be quite happy with it in consistent contexts/theories.

The crucial question then becomes: when is it reasonable to suppose that a context/theory is consistent? Much philosophical discussion has gone into that question. But assuming that consistency is pretty much the norm, it seems plausible to accept that a theory/ context is consistent unless and until one has specific reason to doubt this. If one is found, then one may have to go back and reevaluate matters; but that is nothing that would seem unreasonable if one is, quite generally, a fallibilist.

In fact, this whole idea can be used to frame formal non-monotonic paraconsistent logics which coincide with classical logic in consistent situations. (An intensive study of such logics has been made by the Belgian logician Diderik Batens and his school in Gent. He calls them *Adaptive Logics*.) This is not the place to go into the technical details.

Jacobsen: Do philosophical theories or logics exist incorporative of both classical logics and paraconsistent logics?

Priest: Yes, this may be done in different ways. In answer to the last question I explained one way.

Another is as follows. Paraconsistent logics and classical logics tend to agree with each other (though not invariably) when it comes to logical operators other than negation. So one may have a logic which behaves as usual for these, but which has two negation symbols. One behaves classically ("Boolean negation"); one behaves paraconsistently. Such logics can be used for many paraconsistent purposes, but not, for example, for handling the paradoxes of self-reference. Standard semantic and set-theoretic principles deliver a contradiction which uses Boolean negation, and so everything follows.

The question then becomes: which is the "real" negation?   It is not at all clear what this question means, or how to go about answering it. There has been a good deal of debate amongst logicians—paraconsistent and otherwise—about this matter. But, again, here is not the place to go into the matter.