Discussions

Denyer's $ Not Backed By Sterling Arguments

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1. *Introduction*

A number of people have suggested that an inconsistency-tolerating position is immune from criticism, since objectors are left weaponless.[1] This, however, seriously underestimates the weapons of criticism; in particular, it betrays an overly formalistic conception thereof. A particularly powerful and legitimate form of criticism is that form *ad hominem* which convicts the position in question of being guilty of the very failings of which it accuses others.[2] In 'Dialetheism and Trivialisation'[3] Nick Denyer demonstrates a shrewd appreciation of this fact. He criticizes dialetheic solutions to the semantic paradoxes (which are inconsistency-tolerating) by giving an ingenious argument to show that, given dialetheic logic, the T-scheme leads to triviality if there is a certain binary connective, $, of apparently legitimate credentials. The only way out of this, he argues, opens the dialetheist to just such criticism.

The argument fails to work, however. Denyer's triviality argument breaks down for two reasons. The first is that the 'iff' used at a crucial stage of the argument fails to have the properties Denyer takes it to have. The second is that Denyer's $ fails to have the properties he takes it to have. Moreover, in each case, the reasons for these failures have an intellectual integrity which protects them from the *ad hominem* argument. I take up the two reasons in the order stated.

2. *What iff?*

The first, and perhaps less interesting, of the two loci of failure is the claim that 'if a biconditional is true then the sentences on either side of the 'iff' have the same (combination of) truth value(s)'.[4] Now there are certainly 'iff's for which this is true.[5] But the 'iff' in question here is the 'iff' of the T-scheme, and I have argued elsewhere that this does not appear to be of this kind.[6] More specifically, such a biconditional preserves truth, but not necessarily falsity. Thus, it is quite possible for a formula with value T to be equivalent to one with value TF. (I follow Denyer in writing T for {T}, TF for {T,F}, etc.) Nor is this 'some drastic adhocus pocus' as Denyer claims.[7] For the grounds given there are quite independent of the considerations of this particular argument.

[1] See, e.g., pp. 434–5 of D. Lewis 'Logic for Equivocators', *Nous*, 1982, 431–41.

[2] The question of the criticism of inconsistent positions is taken further in G. Priest, 'Contradiction, Belief and Rationality', *Proceedings of the Aristotelian Society*, 1986, 99–116, and *In Contradiction*, Nijhoff, 1987, ch. 7.

[3] *Mind*, this issue. Page references are to this.

[4] p. 262.

[5] See *In Contradiction*, ch. 6.

[6] *Ibid.*, 4.9, 6.5, and esp. 5.4.

[7] p. 262.

3. *Denyer's* $

The second locus of failure concerns Denyer's connective, \$. The sense of a connective is given by stating the truth conditions of sentences which contain it (at least when the connective is extensional). It is customary to state these by drawing a certain picture. In the case of \$ this is as follows.

A/B	T	TF	F
T	T	TF	F
TF	TF	TF	T
F	F	T	T

From these, we are supposed to read off the fact that if V is any evaluation:[8]

$$\text{if } V(A) = V(A\$B) \text{ then } T \in V(B) \qquad (*)$$

But can we? As Wittgenstein stressed, a picture can mean virtually anything that one wants to take it to mean. It is important, therefore, to have some way of stating what exactly the truth conditions are, that are supposed to be depicted by the table. I do not think that Denyer would quarrel with the following. Let us enumerate the cells of the matrix from 1–9, top left to bottom right. And, given a valuation, V, let C_n be the condition that we are in cell n. Thus, C_3 is: $V(A) = T$ & $V(B) = F$. Then the facts depicted by the matrix are:

$$V(A\$B) = T \text{ iff } C_1 \text{ v } C_6 \text{ v } C_8 \text{ v } C_9 \qquad (1)$$
$$V(A\$B) = TF \text{ iff } C_2 \text{ v } C_4 \text{ v } C_5 \qquad (2)$$
$$V(A\$B) = F \text{ iff } C_3 \text{ v } C_7 \qquad (3)$$

Observe that this is not to read the truth table in any devious way, but is straight orthodoxy. Now, is it possible to prove (*)? The natural argument goes as follows. Suppose that $V(A) = V(A\$B)$. Using the fact that $V(A\$B) = T$ v $V(A\$B) = TF$ v $V(A\$B) = F$, reason by disjunctive dilemma. I consider only the third case, the others being similar. By (3) C_3 v C_7, that is:

$$(V(A) = T \& V(B) = F) \text{ v } (V(A) = F \& V(B) = T) \qquad (4)$$

By substitutivity of identicals $V(A) = F$. Hence $V(A) \neq T$ (since $T \neq F$); whence:

$$\sim(V(A) = T \& V(B) = F) \qquad (5)$$

By disjunctive syllogism from (4) and (5):

$$V(A) = F \& V(B) = T \qquad (6)$$

Thus, $V(B) = T$, as required.

The crucial fact to observe about this argument is that it uses the disjunctive syllogism to infer (6). This is the most (in)famous of all dialetheically invalid inferences. Hence the argument fails. Denyer's \$ cannot, therefore, be shown to have the necessary property.

One might try to argue to the conclusion in some other way; or one might try to state the truth conditions depicted by the matrix in some other way, so that this step of Denyer's argument becomes legitimate; or one might try to redefine

[8] p. 260.

the matrix entries in such a way that it is possible to give truth conditions so that a parallel argument can be made to work. I have no proof that these are impossible, but there are certain general considerations suggesting that it is. In any way the argument is constructed there are nine possibilities to take account of explicitly or implicitly, and some of these must be ruled out. But 'ruled out', in this context, can mean only 'shown to lead to an inconsistency'. Writing them off can therefore be done only with dialetheically invalid arguments. In any case, the onus of proof is now squarely back on the proponent of the argument.

4. *Is this a cheat?*

Denyer considers a reply of this kind, and argues *ad hominem* against it. He says:[9]

> [I]f dialetheists insist on exotic enough ways of reading truth tables, they can no doubt refuse to read the truth table as having those consequences [i.e. (*)]. On the other hand, they had better not insist on too exotic a way of reading the truth tables. For we were supposed to be able to tell from the truth tables given for ~ and & that A&~A could be true in some models, and would be true in all and only those models in which A itself was both true and false. Can there be devised a novel way to read truth tables which is both so far from normal in some respects and also so close to normal in others? Well, maybe with sufficient ingenuity there can. But even if successful, the result is going to look very arbitrary; at least as arbitrary as anything devised by those who try to avoid contradiction. And in any case, the very idea of special ways in which to read a truth table is decidedly *ad hoc.*

The reply is flawed since it assumes that the argument to (*) is blocked by some non-standard reading of the truth-table. This is false. As I observed above, the reading of the table is absolutely orthodox. What I am challenging is what *follows from* the information provided in the truth table.[10]

Is, then, the use of dialetheic logic to draw out those consequences open to similar objections? Not at all. One of the very points of the dialetheic approach to the logical paradoxes is to abolish the distinction between object language and metalanguage.[11] Thus, the logic in which truth conditions are given *must* be the logic of the language for which truth conditions are being given. Indeed, any *other* policy would be intellectually dishonest. The move is therefore neither arbitrary nor *ad hoc*, but follows from the very rationale of the enterprise.[12]

5. *Conclusion*

I have argued that Denyer's argument is flawed at two places. Principles are assumed which a dialetheist does, or may, reject. I have also explained

[9] p. 260–261.

[10] Neither does this endanger the claims about contradictions that Denyer cites. For from the standard truth conditions for & and ~ (see *In Contradiction*, p. 94), it follows by inferences that are dialetheically valid that $V(A\&{\sim}A) = TF$ iff $V(A) = TF$. And from this, given that $\exists V\ V(A) = TF$, it again follows that $\exists V\ T \in V(A\&{\sim}A)$.

[11] See *In Contradiction*, esp. 1.7 and ch. 9.

[12] See *In Contradiction*, 1.5 and ch. 9. The point, with a number of related ones, is made at greater length with respect to a connective similar to Denver's \$, Boolean Negation, in G. Priest, 'Boolean Negation and all That', *Journal of Philosophical Logic*, forthcoming.

why this rejection is neither *ad hoc* nor a cheat, but is entirely integral the dialetheist programme. There is therefore no capital to be made out of Denyer's $.

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