GRAHAM PRIEST

# YU AND YOUR MIND

ABSTRACT. This note is a brief reply to the main argument of Qiuen Yu: 1992, 'Consistency, Mechanicalness, and the Logic of the Mind', *Synthese* **90**, 145–79.

In his paper (1992), Qiuen Yu attempts to refute two arguments based on Gödel's first incompleteness theorem. One is Lucas's argument against mechanism in the philosophy of mind; the other is mine against the consistency of the naive notion of proof. The paper raises many interesting issues. The point of the present note is just to explain a central reason why, I take it, Yu's argument against me fails. (I agree with Yu that Lucas's argument fails, though for different reasons. See Priest (forthcoming).)

Yu and I agree that the naive notion of proof, *LM* (the logic of mind, as he calls it) has a Gödel sentence $G_{LM}$; we disagree about whether this is provable in *LM*. Yu diagnoses an ambiguity in the notion of proof and charges me, essentially, with a fallacy of equivocation. *I*-provability is the normal notion of proof; *R*-provability is a somewhat different notion, whose details need not concern us here. $G_{LM}$ is *R*-provable in *LM* but not *I*-provable.

My reply is simply that I have not confused the two notions of proof. In talking of proofs I have always intended *I*-proofs, and I stick by the claim that $G_{LM}$ is (*I*-)provable in *LM*. Why is this? Yu (1992, pp. 154ff.) attributes to me an argument that appeals to the principle that whatever is provable in a sound system is provable in *LM*. If this were the best that could be done, the argument would, indeed, be hopeless: the principle is false, for just the reasons that Yu gives. Full, second-order arithmetic is sound but not axiomatic; so its consequences outstrip anything that *LM* can establish.

This was not my argument for the provability of $G_{LM}$, however; nor do I think that anything I have written suggests that it is. The reference that Yu gives (ibid., p. 154) is (presumably) to the sentence "the naive theory is, by definition such that anything which is naively provable is provable in it" (Priest, 1984, p. 165). But as the 'by definition' makes

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clear, 'naively provable' here means *provable in LM*, not *provable in some sound system*.

In fact, my argument that $G_{LM}$ is provable in *LM* is much more straightforward than this. It is provable because the proof of it (or at least a proof sketch) can actually be given. It is spelled out most clearly in Section 3.5 of Priest (1987); and as far as I can see, nothing that Yu says threatens this proof. It is true (as I point out there) that the proof requires certain second-order principles; but (as I also point out there) these are intuitively correct, which is all that the argument requires. (Thus the proof does not require the full strength of second-order logic, but only of some recognisably sound fragment.)

## REFERENCES

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