A NOTE ON THE GÖDEL THEOREM

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My exposition of the Gödel theorem (*NDJFL*, II, 2, p. 94 ff.) was inadvertently ambiguous on two points. I should like the following read back into that earlier article.

The distinction always to be made between *decideability* and *completeness* was not clearly enough drawn. Of course, the two are not at all equivalent. A system is decideable if there is a recursive function ϕ such that $\phi(n) = 0$ if and only if n is the Gödel number of a theorem of the system. A system is complete if every *closed* formula p is such that either p or $\sim p$ is a theorem of the system. A system can be decideable but not complete. Decideability when it applies to a system as a whole must therefore be sharply distinguished from the decideability of formulae within the system. (Cf. Myhill's paper in Vol. 6 of *The Review of Metaphysics*.)

On page 97 of my article I write: "It is general recursion (or its equivalent) which is required in any proof of the Gödel theorem." Actually, the theory of primitive recursive functions is quite sufficient for generating the theorem. What ought to have been said is that general recursion was required in *my* exposition of the Gödel theorem.

These additional thoughts may allay some misunderstandings.

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