

Re: Godel's comments about the "true reason" for incompleteness

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On 2008-03-29, in sci.logic, Newberry wrote:

Not sure what you mean by "ordinary usage." But in ordinary usage "there exists a certain sequence of formulas that is a formal proof of 'P or not-P' " implies $P \vee \sim P$.

Implies in what sense? Since P or not- P is a classical logical truth for any P , it is materially implied by any statement. You have perhaps in mind the following principle

if P is provable in first-order predicate logic then P

where P is a sentence in the relevant first-order language. This is a mathematical result provable in some theories and unprovable in some. It's provable in PA, for example, but not in ACA₀ -- or in technicalese, PA is reflexive but ACA₀ is not.

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"Wovon man nicht sprechen kann, darüber muss man schweigen"
– Ludwig Wittgenstein, Tractatus Logico-Philosophicus

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