1046-00-109 **Albert Visser***, Utrecht University, Department of Philosophy, Heidelberglaan 8, 3584CS Utrecht, Netherlands. *Can we make the Second Incompleteness Theorem coordinate free?*

Is it possible to give a coordinate free formulation of the Second Incompleteness Theorem? Can we eliminate the arbitrariness of choices like the choice of the specific proof system, the representation of the axioms, the specific Gödel numbering employed? We pursue one possible approach to this question.

We show that (i) cutfree consistency for finitely axiomatized theories can be uniquely characterized modulo $\mathsf{EA}$-provable equivalence, (ii) consistency for finitely axiomatized sequential theories can be uniquely characterized modulo $\mathsf{EA}$-provable equivalence.

The case of infinitely axiomatized ce theories is more delicate. It seems to me that there are two ways to go. We can replace the single consistency statement by an infinity of restricted consistency statements. Alternatively, we can reaxiomatize the theory by a scheme. This can be done using a method disovered by Vaught. We will briefly discuss the scope of Vaught's result. The specific scheme produced by Vaught's result is crucially dependent of the representation of the axiom set. Thus, in this last approach, we can obtain independence of the choice of the proof system, but not of the representation of the axiom set. (Received September 10, 2008)