

A SURVEY OF FREE LOGICS¹

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This survey of free quantification theories and free identity theories is intended to supplement two other studies, one by E. Bencivenga in *Handbook of Philosophical Logic*, Vol. 3, and another by K. Lambert in two of his papers published in *Inquiry* and *History and Philosophy of Logic* which survey and review some of the important contributions to the area. However these studies were intended not to give a comprehensive view of the results of research in the area but only to provide a context for presenting their author's own contributions. Thus they fall short of being exhaustive reviews of the literature. The present survey tries to present such a comprehensive account, paying attention to the diversity in the attempts to handle the problem as it arises in relation to quantification and identity. By not paying much attention to the differences in different reformulations of the standard quantification theory, Lambert and Bencivenga create the impression that this part of the free logicians' enquiry is unproblematic. The present survey shows that all known reformulations are defective on one count or another; they either invoke vacuous quantification, or require outer domains of interpretation, or multiply connectives, or resort to some such *ad hoc* device. All in all it appears that each of these technical triumphs covers some conceptual confusion. And when an unproblematic reformulation not succumbing to any of the known gimmicks is thought of, it so happens that it cannot be extended to include identity theory unless and until it is assumed that the domain of interpretation is non-empty. For a survey of all the non-standard theories of identity which the free logicians invoke, it comes to the fore that identity and existence go hand in hand, and that in the absence of one the other would not be available. This, in a sense, vindicates the classical relationship between the concepts of existence, identity and uniqueness, and calls into question the very efficiency of the research programme in free logic.

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