152

Notre Dame Journal of Formal Logic
Volume 37, Number 1, Winter 1996

Book Review

Keith Simmons. *Universality and the Liar: An Essay on Truth and the Diagonal Argument*. Cambridge University Press, Cambridge, 1993. xii–229 pages.

The literature on truth and the liar paradox has enjoyed a recent resurgence, of which McGee [6], Koons [4], and Gupta and Belnap [3] are only three, if prominent, examples. Simmons's book is a welcome addition to the field.

The book's most notable contribution is the author's own "singularity solution" to the liar paradox, which develops and makes precise Gödel's intuition in [2] that the paradoxes correspond to "semantic singularities," analogous to division by zero, limit points where the ordinary semantic rules no longer apply. Along the way, Simmons manages to develop a general account of diagonal arguments, review and criticize all the modern approaches to the paradoxes, and present an erudite account of a medieval singularity solution. As is clear, this is no mean feat.

The book is organized as follows. Chapter 1 contains a review of some basic facts about the Liar and related paradoxes, as well as of some possible lines of attack. The chapter also introduces two themes that will be developed at length in the book, namely the issues of "semantic universality" and diagonalization. The latter is taken up in Chapter 2, which develops a general theory of diagonal arguments, explaining what makes some of them *good* (i.e., giving rise to deep mathematical results such as Cantor's theorem), and some of them *bad* (i.e., giving rise to paradoxes). Although structural similarities between diagonal arguments and paradoxes have long been noticed, to this reviewer's knowledge this is the first general treatment of the subject. Chapters 3 and 4 review all modern solutions to the Liar paradox, beginning with Kripke's truth-gap approach in [5], and touching upon Gupta's and Belnap's [3] revision theory of truth, McGee's [6] notion of definite truth, and Feferman's [1] type-free theory of partial predicates. Chapter 5 presents a medieval version of the singularity approach, which the author traces back to Ockham, Burley, and the Pseudo-Sherwood. Chapters 6 and 7 introduce and formally develop the author's own singularity solution. Chapter 8 contains applications of the solution to a variety of paradoxical phenomena. Chapter 9 closes the book with a long reflection on semantic universality as a *desideratum* for any model of natural language and the degree to which such a *desideratum* is met by the singularity approach.

Received October 31, 1995