

Patrick Grim. *The Incomplete Universe. Totality, Knowledge and Truth*. Cambridge, MIT Press, 1991. 165 pp.

Reviewed by

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This is a book whose single argument is the impossibility of totalities of knowledge and truth. Grim uses Liar-like arguments, one of the Gödel theorems and Cantorian diagonalization to show that we cannot speak consistently of a set of all truths or any kind of related totality. This fact has several philosophical consequences which we should not pass over. The notion of truth is deeply related to the notions of proposition, fact and knowledge and for this reason Grim's argument has semantical, epistemological and ontological versions. Using the Cantorian diagonal method, Grim shows that the familiar account of possible worlds as maximal sets of sentences or propositions is inconsistent, that there is no set of all facts (so that the *Tractarian* characterization of the world gives rise to contradictions) and that omniscience (as an attribute of God or of any other being) is a contradictory notion. Grim's argument pervades most of the familiar semantical, epistemological or set theoretical systems which we use in the formal treatment of subjects in which the basic notions are set, knowledge, truth, world or fact. The problem Grim points to cannot be solved by the usual minor changes in theories such as substituting the notion of set for class or any other kind of totality, talking about propositions instead of sentences, adopting a redundancy theory of truth or following any of the available set theories.

In the extended first chapter Grim comes back to the most significant proposals in order to escape the Liar paradox—Russell's theory of types, Tarski's hierarchy and Kripke's, Barwise's and Etchemendy's contributions—and shows that all of them amount to or imply a forbidding of these totalities which is also the ultimate moral—learned from the Liar—of his book. The second chapter is devoted to Kaplan and Montague's Paradox of the Knower, a new version of the paradox of the surprise examination. Here, as throughout the book, Grim's strategy is to apply old arguments to new subjects and to analyse the consequences. On p. 49 Grim says, "The full impact of the Knower, however, has not yet been realized—or so I will argue. For what the Knower offers is a surprisingly powerful argument against the coherence of a broad range of common notions if taken in full generality [...], it offers an intriguing argument against any notion of a totality of truth or of total knowledge." In the third chapter, he argues against the ideas of a complete and final knowledge and an omniscient being. An omniscient being must possess some kind of self-reflectiveness in the sense that she must know everything including herself. Nevertheless, any suitable notion of self-reflectiveness is forbidden by one of Gödel's theorems which states that every system powerful enough to contain a deductive system like the arithmetic is essentially incomplete.

All Grim's results should be considered as facets of the same problem, which boils down to: there can be no set of all truths. In chapter four, this result is analysed against the background of some of the best-known set theories. None of our usual set theories can