

**A** CRUCIAL PROBLEM in contemporary Copernican studies is an appreciation of Copernicus's originality. For clearness of considerations, let us turn to the *Oxford Reference Dictionary* (1991) to scrutinize the various meanings (defining the semantic field) of the term 'original' (from which the term 'originality' stems): "1. Existing from the first, earliest; primitive; innate. 2. that has served as a pattern, of which a copy or translation has been made. 3. new in concept, not derived or imitative. 4. thinking or acting for oneself, inventive, creative". Thus, a crucial question arises. "In what sense or senses was Copernicus original?" I will try to answer this question in the context of contemporary, interdisciplinary Copernican studies. Two main motifs exist in this research. First are general considerations regarding the rationality or irrationality of Copernicus's discovery of the motion of the earth. Second are detailed analyses of mathematical models of astronomical phenomena provided by Copernicus in the *Commentariolus* and *De revolutionibus*, and their comparison with analogous models invented by medieval Islamic astronomers. The first commanded the attention of philosophers and historians of science interested in the philosophy of scientific discovery and other scholars interested in rhetoric and dialectics. The second drew the attention of historians of mathematical astronomy. These two groups of researchers differed on many questions. Nevertheless, it was virtually dogma for both of them, and also for many 20<sup>th</sup>-century scientists as well as the 16<sup>th</sup>- and 17<sup>th</sup>-century Aristotelians, that Copernicus did not formulate any (conclusive) proof for the motion of the earth. (This is a crucial thesis, since it makes Copernicus's originality very dubious). In my opinion, however, this fundamental thesis is the result of a great historical, methodological and terminological misunderstanding. The error stems from (a) an oversight of important historical currents in the history of the ancient, medieval and Renaissance philosophy, especially theories of knowledge, and (b) an insufficient coherence between the philosophical and mathematical considerations mentioned above. I have a similar objection to another important thesis (that completely deprives Copernicus of originality), namely, that the Copernican revolution was not a genuine revolution in science, but a simple conservative repetition and revival of old ideas.

In what follows, I review the debate in the literature over Copernicus's originality in Part I, and try to show some fundamental beliefs that earlier studies shared both explicitly and implicitly. Then, in Part II, my defense of his originality is presented. Part III, including five appendices, supplements the essential line of thought given in the main text.