

New Look at Aristotle's Logic of Inquiry

Abstract

Aristotle was both a philosopher of science and a practicing scientist. He developed the first known axiomatic conception of science along with a theory of demonstration in his logical treatises, but neither of these is found in his scientific treatises. Although scholars have attempted to resolve this tension, they prioritize Aristotle's discussion of inquiry in the *Posterior Analytics* and not his conception of axiomatic science and demonstration. I want to explore the *Posterior Analytics* and argue that it is primarily a logic of inquiry, a logic where inquiry exploits the axiom system and the theory of demonstration to show how we can arrive methodically at scientific knowledge. This will resolve the tension between his philosophy of science that is grounded axiomatically and his practice of science which emphasizes inquiry. Aristotle's scientific writings, then, aim to arrive at axiomatic sciences rather than being a presentation of one. The tension in my interpretation is that axiomatic systems have deductive certainty; inquiry normally does not. I propose that Aristotle does not rely on the deductive structure of a syllogism for his axiom system but rather the connection between terms, such as the kinds of connections between genus-differentia terms.