Questions of Methodology in Aristotle’s Zoology: 
A Medieval Perspective

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Abstract. During the Middle Ages Aristotle’s treatises were accessible to intellectuals via translations and commentaries. Among his works on natural philosophy, the zoological books received relatively little scholarly attention, though several medieval commentators carefully studied Aristotle’s investigations of the animal kingdom. Averroes completed in 1169 a commentary on an Arabic translation of Aristotle’s *Parts of Animals* and *Generation of Animals*. In 1323 Gersonides completed his supercommentary on a Hebrew translation of Averroes’ commentary. This article examines how these two medieval commentators interpret the first book of Aristotle’s *Parts of Animals*, at the center of which stand methodological questions regarding the study of animals. Aristotle’s discussion of classification is presented by Averroes and Gersonides in light of an epistemological debate concerning the requisite method for scientific inquiries and discoveries. Sense perception is contrasted with rational reasoning, and ultimately a combined method is proposed, sense perception maintaining supremacy. These commentators outline a clear link between the systematic arrangement of animal species as offered by Aristotle, and his subsequent logical demonstrations which, according to them, form the core of biological investigations.

Keywords: Aristotle, Averroes, Gersonides, zoology, classification

Introduction

The centrality of Aristotle’s zoological writings to his philosophical enterprise is widely recognized by scholars; his works on zoology occupy much of the standard Bekker edition of the Aristotelian corpus (Van Oppenraay, 1999, p. 36 n.17). Furthermore, several scholars have argued
that these zoological treatises impacted greatly upon the Philosopher’s thought in other fields, and that biological investigations may have served as a trigger for many of his general ideas on scientific research and rational reasoning.¹ Yet, for centuries the vast zoological texts have attracted relatively little scholarly attention, and were for the most part ignored even by the predominantly Aristotelian medieval intellectual activity. Only few men of knowledge took on the challenge of delving into explorations of the animal kingdom known to Aristotle.²

Similarly, modern scholarship on Aristotle’s philosophy has focused primarily on his works of logic, physics, metaphysics, ethics, and politics. However, the study of Aristotelian biology has enjoyed a flourishing revival of late. At the center of this renewed awareness of Aristotle’s works on biology are questions of methodology, to which Aristotle himself allocated much consideration. Innovative insights of contemporary scholars have indeed sparked extensive discussion. However, these experts on Aristotle have for the most part disregarded their predecessors, those few medieval intellectuals who struggled with the same ancient texts.³ A glimpse at pre-modern commentaries on Aristotelian zoological

¹ For some examples, see: Grene, 1963; Balme, 1987; and Coope, 2005. On the interdependence of cosmology and biology as expressed in Aristotle’s De motu animalium, see Martha C. Nussbaum’s assessment in Aristotle, 1978a, pp. 107–142. Not all scholars agree with these assumptions. There is a difference of opinion as to the order in which Aristotle composed his zoological treatises and their chronological position in his philosophical activity. A number of experts claim that Aristotle’s philosophy of science was based primarily on fields of knowledge other than biology. For discussions on this matter, see the essays in Gotthelf and Lennox, 1987.

² A major obstacle for Peripatetics was the vast number of species with which Aristotle was familiar, a virtue unmatched for centuries. For example, Averroes proclaimed: “And we stated here what we understood of Aristotle’s book, since we will not see some of these species any more, and they do not have known names among us” (Averroes, C. BA, f. 446a). Gersonides remarked: “…that even names of the subjects of this wisdom mentioned by Aristotle are not known to any one of us, much less their body parts, their qualities, and relation to one another” (Gaziel, 2008, p. 110). Other medieval interpreters of Aristotle’s biological writings have expressed the same concern, such as Michael Scot (Van Oppenraay, 1999, pp. 33–35).

³ James Lennox described the fate of Aristotelian biology in the centuries that followed their publication. He claims that Aristotle’s research program – which included a study of animals as part of a theoretical, demonstrative science of nature – was overlooked by Hellenistic commentators, and the first to return to it was Albertus Magnus in the thirteenth century (Lennox, 2001, pp. 110–124). Lennox overlooks the fact that Albertus continued a tradition firmly based in Arabic literature, which reached its apex with Averroes’ commentary, and was later considerably widespread in medieval Europe.