

Aristotle on Earlier Greek Psychology: The Science of the Soul. By Jason W. Carter. Cambridge UK: Cambridge University Press, 2019. Pp. 253. \$99.99 cloth.

Aristotle's *De anima* is a relatively short text, only thirty-three pages in the standard Bekker edition, amounting to some 30,000 words. About a fourth of the treatise is dedicated to a discussion of the views on the soul advanced by Aristotle's predecessors. After a series of methodological remarks in the opening chapter, the rest of the first book deals with Aristotle's predecessors, including Empedocles, Anaxagoras, Democritus, and Plato. This amount of attention to earlier views on the subject has puzzled readers of *De anima*. True, Aristotle is wont to open his discussions of particular subjects by surveying earlier, authoritative, and widely held views on the subject, but hardly ever to the extent and with systematicity that we find in *De anima*. Some readers of Aristotle apparently think that chapters two through five of the first book are irrelevant for his project in *De anima*, and so they read only the first "methodological" chapter and then skip straight to the second book, where Aristotle begins to unfold his own theory of the soul. A glaring example of this approach is Hamlyn's 1968 translation and commentary in Oxford's influential Aristotle Clarendon Series, which simply omits I.2–5. (Thankfully, Hamlyn's volume in this series was replaced by Shields's version in 2016.)

More judicious readers, who were intrigued by Aristotle's discussion of his predecessors and who were not prepared to disregard *De anima* I.2–5 as a quirk on Aristotle's part, have argued that these chapters were dialectical, like many other of Aristotle's engagements with his predecessors. Roughly, their idea was that Aristotle's method consisted in (1) collecting a set of acceptable views on the subject in question, typically views accepted by everyone, by a majority of people or by experts (*endoxa*), (2) surveying them for infelicities, often by putting them into opposition with one another, and then (3) removing the infelicities, mostly by introducing his own views and theories. However, such a "dialectical" reading does not seem to stand the scrutiny. In *De anima* I.2–5 we find few cases of setting the predecessors' views in opposition or of analyzing them with dialectical tools known from the *Topics*. And while Aristotle's own views are clearly present in the background all along, the earlier views on the soul are never criticized on the basis of the hylomorphic theory. Mostly they are criticized within their own system, except when they clash with common sense or general presuppositions of Aristotle's natural science as we find them in the *Physics* and *De generatione et corruptione*. So, what is going on in *De anima* I.2–5?

In his book *Aristotle on Earlier Greek Psychology: The Science of the Soul*, Jason W. Carter offers a comprehensive, well-researched, and stimulating answer to this question. According to Carter, Aristotle aims to give a scientific account of the first principle of life, that is the soul. To do so, however, he first has to determine a proper method for discovering the essence of the soul and to find the starting points for this method, and that is not an easy task. Having argued that neither dialectic nor induction nor division are individually viable methods for discovering the essence of the soul, Carter proposes that Aristotle's chosen method is "demonstrative heuristics": taking the existent accounts of the soul as the starting points and then testing them to see how well they explain the essential attributes of the soul.

The essential attributes of the soul, it is argued, are the properties of the soul everyone agrees on, namely that the soul (1) causes the body to move, (2) enables animals to cognize things (perceptually and, in the case of humans, intellectually), and (3) is something incorporeal or extremely fine in composition. These clearly qualify as endoxa, but Carter finds that Aristotle does not put them to dialectical use, but rather to scientific use, in accordance with the demonstrative conception of science put forth in the Posterior Analytics.

How exactly does this work? Aristotle collects his predecessors' views on the soul and organizes them into (or extracts from them) accounts of the essential attributes of the soul and accounts of the essence of the soul that are supposed to explain the essential attributes. He then tests the accounts of the essence of the soul in order to see how well they explain the proposed essential attributes of the soul. The testing is done variously by checking the conformity of these accounts with logic, general presuppositions of Aristotle's natural science, empirically established facts and imaginative counter-arguments.

The proposed method is called "demonstrative" because the central ideas encapsulated in these views of the soul are taken as middle terms that can function in putative demonstrations of the soul's essential attributes. Carter makes an effort to explicate each earlier account of the soul's essence in terms of simple deductive arguments, which is supposed to shed light on Aristotle's particular formulations and procedures in *De anima* I.2–5. Admittedly, the method is called "heuristic," on the other hand, because the outcome of the testing is a set of positive and negative constraints for Aristotle's own account of the essence of the soul.

The negative constraints are the axioms, hypotheses, and definitions that are shown to lead to explanatory dead-ends and should hence be avoided in Aristotle's own account. For example, testing of Democritus's atomistic account of the soul shows that it can explain neither the difference between thinking and perception nor voluntary action. Testing Empedocles's elemental account of the soul proves that the right composition of elements, though necessary, cannot be a sufficient cause of perception. The main positive constraints are, of course, the three essential attributes of the soul that the earlier thinkers have handed down and that Aristotle will explain with his own account in books two and three. Carter identifies a number of further positive constraints that lead Aristotle to his hylomorphic account of the soul. For instance, testing Plato's account of the soul as a self-mover leads Aristotle to conceive of the soul as a formal cause that operates as an unmoved mover, and testing of Anaxagoras's account of nous commits Aristotle to the view that intellect is separable from the body.

This account should give the reader a taste of the two central parts of Carter's book: "Earlier Theories of Psychological Motion" (Plato, Democritus, Xenocrates, "Pythagorean" harmonic theorists) and "Earlier Theories of Psychological Cognition" (Empedocles, Anaxagoras). The third part of the book discusses two distinct problems from *De anima* I.5, the problem of soul's (non-)uniformity and the problem of soul's (non-)divisibility, one motivated by Orphic views of the soul and the latter by Plato's. The book concludes with the chapter "Hylomorphic Psychology as a Dualism," to which I will return shortly.

The story told by Carter is coherent, well-narrated, philosophically informed, and at many points genuinely illuminating. However, this reviewer could not shake off the thought that it is contrived. In the introduction, Carter sets forth Aristotle's hylomorphic theory of the soul in terms of five theses and several axioms, which then conveniently emerge as the positive constraints yielded by demonstrative heuristic of Aristotle's predecessors. Furthermore, statements of the predecessors recorded by Aristotle are reformulated by Carter as simple syllogisms with highlighted middle terms, which does not have obvious basis in Aristotle's

text. Moreover, the predecessors are artificially grouped either in the “motion” or in the “cognition” camp, whereas they in fact make statements that address both issues. So, the way Carter organizes the material in his book does not do justice to the way Aristotle organizes his material in *De anima*. Again, views of people like Thales, Diogenes of Apollonia, Heraclitus, Alcmaeon, Hippon, and Critias are altogether omitted. Carter warns on p. 13 that this is because they do not come up for serious treatment in *De anima* I.2–5. Nevertheless, they are discussed there, which means that Aristotle’s treatment of his predecessors cannot be exhausted by “demonstrative heuristic.” To put it differently, if the heuristic is indeed demonstrative, why include any views irrelevant to the results which are to be demonstrated?

Finally, I suspect that the final chapter, where Carter makes Aristotle a forerunner of Descartes, will raise more eyebrows than any other part of the book. Carter’s reading of *De anima* II.1–2 led him to think of hylomorphism as a sort of substance dualism, which it clearly is not. If form is ontologically prior to matter, if form organizes matter and determines the processes in the body and its interactions with the environment, then form and matter cannot be substances in the same sense and their relation cannot be conceived as “an essential agent-patient relation” (p. 220). Of course, a caveat is needed here because nous is not an enmattered form for Aristotle. However, nous is an embarrassment for hylomorphism, not its integral part. More to the point, I disagree that pneuma is “an analogue for Descartes’s pineal gland” (p. 226), because there is a perfectly Aristotelian and fully naturalistic explanation for the operations of pneuma in the body, as several scholars have recently argued. In a word, it seems to me that Carter understands hylomorphism in a way that makes it not only un-Aristotelian, but philosophically uninteresting.

Notwithstanding these critical remarks, Carter has done a great service to scholars who study Aristotle’s *De anima*, both for making Aristotle’s appraisal of the earlier thinkers central to his own pursuits in *De anima* and for showing how this text can be fruitfully approached from the framework of *Posterior Analytics*. Although Carter’s book is not written as a commentary on *De anima* I.2–5, it should be read and systematically consulted by students of *De anima*, especially those interested in the first book and in Aristotle’s treatment of his predecessors.