ABSTRACT

Between the Physics and the de Caelo, Aristotle seems to define the objects examined by “the science of nature” quite differently. Opening Physics II 1, he first identifies “things that are by nature” as plants, animals, their parts and the simple bodies, and ultimately identifies nature primarily with form, albeit form that is always found together with matter. In De Caelo I 1, Aristotle claims that the science of nature concerns “both bodies and magnitude.” He defines body not in terms of form and matter but as magnitude that is divisible: if divisible one way, a magnitude is a line, if two ways, a surface and if three a body. How can the science of nature have as its objects both natural things, such as man or fire, defined in terms of form and matter, and body, defined as perfect magnitude, i.e., length, breadth, and depth, without reference to form? Aristotle never explains either the relation between these arguments or between things that are by nature and body; furthermore, the relation between them—and the different concepts with which they operate—is not, prima facie, obvious. Rather, it must be inferred from what he does say. I argue that a systematic account of the science of nature may be inferred from the arguments of Physics II and de Caelo I, supplemented by other texts, primarily from the Metaphysics. I conclude that Aristotle’s account of substance as form, matter, and the combination of form and matter in fact resolves these difficulties and tells us why the science of nature must be both of natural things and of bodies.

I. Introduction

Between the Physics and the de Caelo, Aristotle seems to define the objects examined by “the science of nature” [Ἡ περὶ φύσεως ἐπιστήμη] differently. In Physics II 1, the physicist examines “things that are by nature,” plants, animals, their parts and the simple bodies identified as earth, air, fire, and water, which differ from things that are by art, such as a bed or a
Natural things, *Physics* II 1, continues, contain a “source and cause of being moved and being at rest” while things that are by art do not and so require an artist to impose form on matter. Aristotle next asks: should the nature, or substance, of a natural object be identified as form or matter? Form rather than matter, he asserts unequivocally, is the nature of a thing. But he does not altogether reject matter: natural form is always found with matter and together they constitute an individual, e.g., a man; this individual is not nature but “by nature.” Since physics is primarily concerned with things that are by nature and such things are constituted by form found together with matter, physics primarily considers form but must also include a reference to matter. This point highlights a further difference between artistic and natural things: in artistic things, matter, e.g., wood, can both be and be known apart from artistic form, e.g., a helm; but in the case of natural things, matter, e.g., bone or flesh, can neither be nor be known apart from natural form. Therefore, the physicist must know nature in both these senses, form and matter, as together they constitute things that are by nature.

*De Caelo* I 1 opens: “the science of nature clearly concerns for the most part both bodies and magnitude . . . .” Body is magnitude that is divisible: if divisible one way, a magnitude is a line, if two ways, a surface and if three ways a body. There is no “higher” magnitude, and so body alone can be perfect, or complete, magnitude. Indeed, body, which plays no role in *Physics* II’s account of natural things, seems to replace natural things, which, in *de Caelo* I, disappear. “Form” and “matter” disappear as well; neither of Aristotle’s regular words for “form” [either *τὸ εἶδος* or *ἡ μορφή*] nor his word for matter [*ἡ ὕλη*] appears even once in the first ten pages of the *de Caelo*. How can the science of nature have as its objects both natural

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8 Aristotle, *Phys.* II 1, 193b5-6.
11 Aristotle, *Cael.* I 1, 268a1: περὶ τε σώματα καὶ μεγέθη.
12 Aristotle, *Cael.* I 1, 268a8.