Frank A. Lewis. *How Aristotle Gets by in Metaphysics Zeta*. Oxford University Press 2013. 336 pp. \$99.00 USD (Hardcover ISBN 9780199664016).

Aristotle's *Metaphysics Zeta* is a densely written inquiry into the ontology of middle-sized common sense objects, such as plants and animals. In *Zeta* 1 Aristotle lets us know that the long-standing question of what being is, is for him the question, what is substance? And by this he means to ask, what is primary substance or the substance of a thing? It is clear that Aristotle showcases a favoured ontology of form, matter, and form-matter compounds, and that the form of a form-matter compound is the primary substance of the compound. Roughly a third of *Zeta* can be seen to promote in some way the claim that primary substance is form, most forcefully done in the final chapter, 17. The rest finds Aristotle examining the views of other philosophers that substance is the *subject* of metaphysical predication, the *essence* of a thing, or what is *universal* to things.

Commentators have long been interested in the parts of *Zeta* that give us Aristotle's mature thoughts on ontology. But how are we to understand the relation between the parts of the text? Is *Zeta* a mash-up of Aristotle's mature ontology with views from the philosophical tradition? If so, we may be justified in dismissing much of it in favour of getting clear on Aristotle's ontology. Or is *Zeta* structured, though it may be difficult to see? Frank A. Lewis argues there are two elements of *Zeta* that provide the key to understanding the work. Easily imagined as the form and *telos* of *Zeta*, they are the *levels* and the *goal* of the work, and together, they produce a definition of primary substance. By focusing on these, Lewis provides an interpretation and road map of *Zeta* that shows Aristotle 'to advance his own metaphysical conclusions' by uncovering 'the continuity of one sort or another between his views and the views of others' (4).

Lewis' thesis about levels says there are two distinct but interacting levels at play in the inquiries of what primary substance is. At the first level is a body of received views about substance, most notably those of Plato, Democritus and the earlier views of Aristotle, e.g., those of the *Categories*. The second level expresses Aristotle's mature 'partisan' ontology of form, matter, and form-matter compounds, whose application is seen in the *Physics* and *On the Soul*. The received views of substance as subject, essence, and universal, at the first level, come under criticism by Aristotle as he leads up to an examination of his partisan theory of primary substance, at the second level. Considerations about primary substance at both levels can be found in the sections where Aristotle examines a traditional view. Lewis argues that the separation of the partisan theory and the philosophical tradition by levels does not leave them inaccessible to each other, since at the first level Aristotle identifies strengths and weaknesses of the received views, and identifies those aspects that agree with his partisan theory. So *Zeta* progresses cumulatively to endorse the partisan ontology, by allowing the assumptions and conclusions of each section on subject, essence and universal carry over as the text progresses.

Lewis makes his argument for the cumulative thesis indirectly by arguing against Myles Burnyeat's (*A Map of Metaphysics Zeta*, Mathesis Pub., 2001) Non-Linearity assumption. Burnyeat views the structure of *Zeta* as consisting of levels—as does Lewis—but also as progressing non-linearly, on the basis that Aristotle makes 'a fresh start' on each candidate for primary substance: e.g., 'Let us state what...substance should be said to be, taking once more another starting point [αλλην ἀρχὴν]...' (*Met. Z17*; tr. Ross). Burnyeat takes locutions such as these to indicate the Non-Linearity assumption, that the results of Aristotle's investigations are non-cumulative. Non-linearity

has two parts. The Common Conclusion assumption takes first level considerations about subject, essence, and universal to each entail the second level conclusion that substantial being is form; the Independence Assumption treats the sections of *Zeta* separate and without recourse to each other's arguments and results.

According to Lewis, the logic of Non-Linearity is most plausibly construed as a Constructive Dilemma (CD), requiring each of the major sections of *Zeta* to argue that substance is a subject or an essence or a universal, and each independently concluding that substance is form, which Burnyeat takes to be the conclusion of *Zeta* as a whole. Lewis reviews a number of reasons to doubt the CD theory of *Zeta* (Burnyeat misidentifies the conclusion of *Zeta*, for one), but the decisive reason for rejecting CD is that Aristotle argues *against* taking the substance of something to be either a universal or a subject, and the conclusion of CD cannot be generated unless all three hypotheses—that substance is subject, essence and universal—are affirmed by independent arguments. Thus, the CD theory fails and along with it Non-Linearity, so the argument of *Zeta* is cumulative. (But this does not seem to entail that the levels thesis is correct, since possibly a different argumentative strategy is employed in *Zeta* that is also cumulative.)

The argument against Burnyeat is persuasive, but it leaves Aristotle's references to 'fresh starts' dangling and in need of a reading that suggests something other than the abrupt starting points of Non-Linearity, i.e., new segments belonging to a cumulative inquiry. The Greek suggests Non-Linearity and it is not obvious to this reader that the Cumulative thesis can massage the text without awkwardness or strain.

For Lewis, levels fully constitute the argumentative structure of *Zeta*. The bulk of the book investigates Aristotle's arguments at the level of received views about subjects, essences and universals, and whether they could serve as the primary substances of things. For example, in *Zeta* 3 Aristotle investigates the 'traditional' view of the *Categories* that substance is the subject of metaphysical predication. Aristotle employs a method of 'stripping away' the accidental attributes of an individual substance, such as Prince, to reveal the underlying subject, the horse. But when the 'stripping away' method is employed at the 'partisan' level of hylomorphic compounds, it fails to identify anything other than matter, since what is 'stripped away' is the form metaphysically predicated of matter. But matter cannot be substance, since on its own matter is neither a 'this' nor independent, which are further criteria of substances. So the process that successfully identifies substance as subject at the 'received' level of inquiry yields a negative result at the 'partisan' level: subjects are not substances. Further into *Zeta*, substance as universal also do not seem to make the jump to the 'partisan' level, while substance as essence does.

The second part of Lewis's road map is the goal of *Zeta*, which is to produce a definition of primary substance in the last chapter of *Zeta*, 17. Lewis takes this from the question that Aristotle asks at the end of Chapter 1, 'What is substance?' Many commentators interpret Aristotle here to be asking for the class of items to which the term 'primary substance' applies, e.g., Aristotelian forms. By placing it within the Socratic tradition of asking 'What is X?', the application problem is secondary, to be solved after the definition of primary substance has been found. The definition that Lewis proposes is:

x is a (primary) substance = df for some y, x is the cause of being for y. (Definition)

The definition is textually supported by Zeta 17, and after we have it we are in position (in the 'partisan' discussion of 17) to identify the cause in the definiens as Aristotelian form. And since Aristotle takes the cause of the being of a compound substance to be its form (predicated of the compound's matter), primary substance is form. Lewis argues that being a primary substance is a property of Aristotelian forms, with the help of a contemporary distinction made between functional and realizer properties. In philosophy of mind, functionalists treat pain as a second-level functional property belonging to a subject in virtue of the realization of first-level realizer properties, such as appropriate physical states. Applying the distinction to Aristotle, Lewis sees primary substance as a second-level functional property belonging to a thing in virtue of the realization of the first-level realizer properties, the active causal powers that constitute the form and cause of the being of the thing. Lewis does not identify primary substance and form, as others have, and would be committed to primary substance being a 'multiply realizable' property. This seems an attractive conclusion to draw, given the diversity of natural kinds in the world. The forms of tortoise and hare consist of different causal powers, yet tortoises and hares have as their primary substances their forms. In each case the primary substance is the cause of the being of the thing, multiply realized in the active causal powers of organisms. Again, I find this a persuasive interpretation, though the argument will need to be judged against charges of anachronism.

Lewis' book is filled with careful textual analysis of *Zeta* and the relevant corpus. There is a lot of material here, including a chapter on substance as subject, five chapters on substance as essence, three long chapters on substance as universal, and a final chapter on Aristotle's continued investigation into *Eta* 1. The philosophical analysis is rigorous, yet Lewis writes in a style that would not be off-putting to first-comers to Aristotle. The book is of course required reading for experts of the *Metaphysics*, but it would also serve anyone as an excellent accompaniment to the primary text, helping junior readers in particular with the arguments and aims of Aristotle in *Zeta*.

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