

Discussion

On Myles Burnyeat's *Map of Metaphysics Zeta*

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The present discussion of Myles Burnyeat's *Map of Metaphysics Zeta* (2001), originally intended as a review, has long since exceeded both the size-limits and the time-delay possible for a review. The book has been reviewed in other journals, and other scholars have responded to Burnyeat in their own articles and books; indeed, they were doing so even before the book was published, because for years before publication Burnyeat was circulating shorter versions and holding seminars at various universities, and working out the fuller version in response to comments.¹ I will do some review-like things here: I will describe what seem to me to be Burnyeat's main accomplishments and main controversial theses in the book. But since I think one of his main accomplishments in the book is to change the set of questions that any responsible reading of *Metaphysics Z* must address, I will want to reflect on the state of scholarship pre-Burnyeat and post-Burnyeat, and I will take up Burnyeat's questions, and challenge some of his answers, on the argument-structure of *Z* and its place in the larger project of the *Metaphysics*. I am convinced that for the scholarship on *Z* to progress it must address these issues and Burnyeat's arguments about them, and I hope in this essay to contribute to this discussion, and to help elicit further responses from others.

The *Map of Metaphysics Zeta* is a slim book (149 pages plus indices) for what it contains: not only a detailed discussion of the argument-structure of *Z*, but also treatments of the role of *H*, of the place of *ZH* in the larger project of the *Metaphysics*, and of the relation of metaphysics to physics and especially to logic in Aristotle's philosophy. Necessarily Burnyeat is selective about what topics to discuss and about what controversies to enter into. But he chooses his points with care. He has a remarkable series of brief but enlightening observations on particular passages of *Z*. But his main concern is to raise methodological issues—issues both of our methodology in interpreting the text, and of Aristotle's in writing it. He takes as his guiding thread Aristotle's own comments on what he is doing in *Z*—backward and forward references, comments about what questions we must now address, and so on—from which we can piece together Aristotle's picture of how the particular claims and arguments of *Z* fit into a larger argu-

¹ Reviews are Matthen 2002, Bostock 2002, MacFarlane 2003, Modrak 2003, Lewis 2004, and Gill 2005a. See also Gill's review-essay on the current state of scholarship on the *Metaphysics* (mainly on *ZH*), Gill 2005b. Lewis 1999 deals with issues of the overall argument-structure of *Z*, responding to (and perhaps largely stimulated by) the *Map* even before it was published. Some of Burnyeat's issues are also discussed in Wedin 2000 and Devereux 2003.

ment. The effect of forcing attention onto Aristotle's own conception of his project should be to jar readers out of what has become an all-pervasive scholarly orthodoxy on Z.

There has, indeed, been lively disagreement about Z. But that disagreement has focused on whether Aristotelian forms are individual or universal. Both sides accept, as an orthodoxy not itself in need of argument, what I will call the criteria-and-candidates interpretation of Z: that is, the view that the overarching concern of Z is to discover what candidates within the realm of sensible things best satisfy the different and *prima facie* conflicting criteria for being an οὐσία or substance, that is, for being a being in the primary and focal sense. Then, according to this interpretation, because some of these criteria seem to support the claim that forms (perhaps *only* forms) are substances, while others seem to support the claim that no universal is a substance, it becomes urgent for us as interpreters of Z, and urgent for Aristotle himself, to determine whether forms are universal or individual. There have been commentaries on Z that scrutinize each passage of the book only for what evidence it gives on whether forms are individual or universal, ignoring anything else that Aristotle may be trying to do in the text. Burnyeat tries to make us pay attention to Aristotle's own concerns, and I think he is right to deny that Z has any special concern, either with reconciling different criteria to determine what things in the sensible realm are substances, or with the question of individual or universal forms. Indeed, my criticisms will be mainly on places where I think Burnyeat remains too close to the orthodoxy, not on places where he challenges it.

Burnyeat's intention, in providing a 'map' of Z, is to address the second-order questions of the structure and aims of Z (in itself and in its larger context), not the first-order questions of what Aristotle believes about substance. He would like his 'map' to be a useful guide for readers with divergent first-order views, and a neutral basis for debating the first-order questions. This will not really work. As Burnyeat acknowledges, 'the difficulty of the terrain makes it impossible to keep the survey completely neutral on major issues of philosophical interpretation, such as whether Aristotelian form is individual or general' (3). So he will make his views clear on some of these issues, without being able fully to defend them within the compass he has chosen. This would be of no concern if the evidence of the 'signposts' in the text (Aristotle's methodological remarks, forward and backward references, and so on) gave unambiguous answers to the second-order questions, so that we could take these questions as settled by Burnyeat's map, and go on to discuss his answers to the first-order questions. But in fact the second-order questions will likely prove just as controversial as the first-order ones, and readers with different interpretations of Aristotle on substance will probably also give different interpretations of the structure of his argument. Although the book will therefore probably not settle many controversies, it will nonetheless be immensely stimulating, in forcing the rethinking of established orthodoxies, raising questions that any responsible reading of Z will now have to address, and turning scholarship from its recent dead-end onto more fruitful paths.

In that spirit, I will in the present essay be challenging many of Burnyeat's conclusions about the argument-structure of Z. Because much of what I have to say in detail will be critical, let me record here my view that this is one of the half-dozen most important studies of the *Metaphysics* in the last hundred years: I would class it with Werner Jaeger's *Studien zur Entstehungsgeschichte der Metaphysik des Aristoteles* (Jaeger 1912), W.D. Ross' commentary on the *Metaphysics* (Ross 1924), Joseph Owens' *The Doctrine of Being in the Aristotelian Metaphysics* (Owens 1951), Pierre Aubenque's *Le problème de l'être chez Aristote* (Aubenque 1962), and Michael Frede and Günther Patzig's commentary on Z (Frede-Patzig 1988). All of these are books that, besides containing many permanently valuable insights, and presenting a plausible case for one overall strategy of reading the text, also changed the questions that must be addressed to the text. Burnyeat often places himself in dialogue with Jaeger, Ross, and Frede-Patzig, and he 'hope[s] to revive interest in Werner Jaeger's pioneering, but now neglected, masterpiece' (4; by implicit contrast to Jaeger's *Aristoteles: Grundlegung einer Geschichte seiner Entwicklung*, Jaeger 1923). This would indeed be a welcome result, although I would myself disagree with some of the conclusions that Burnyeat takes over from Jaeger (including some that Jaeger had recanted, in my view rightly, by 1923).

I

The *Map of Metaphysics Zeta* is in six chapters. Chapter 1 is a short introduction explaining the project of the book and describing what Burnyeat sees as its central innovative theses. Chapter 2, only two pages, is the map itself, a schematic outline of Z, breaking it down into what Burnyeat sees as its main sections, and stating the aims of each and how each fits into the larger argument. Chapter 3 (almost half the book) is a kind of commentary on the map, going through each of the 'signposts' in Z and using it as evidence for determining the structure of the argument. Chapter 3 also argues that Z7-9 and Z12 are later insertions in Z (although these texts are genuinely by Aristotle), and it also discusses the argument-structure of H and its relation to Z. Chapter 4 offers some brief reflections on why Aristotle might have organized his argument in this rather complicated way. Then, because Burnyeat's reading depends heavily on a distinction between 'logical' and properly 'metaphysical' levels of argument in Z, he gives in chapter 5 a discussion of the Aristotelian notion of 'logical', and in what sense the *Organon* can be seen as demarcating the territory of logic. Finally, chapter 6 seeks to place ZH within a quickly sketched picture of the project of the *Metaphysics* as a whole. In the present section of this essay I will discuss Burnyeat's main interpretive theses and his overall map of Z, and in the process I will say something about his notion of 'logical'. In the next section I will pick up some points from his chapter 3, discussing each of the main sections he sees in Z and raising some difficulties against his way of structuring Aristotle's argument, and against his exclusion of Z7-9 and Z12 from the originally intended plan of Z. Finally, in the last section I will add some reflections on

Burnyeat's picture in chapter 6 of the *Metaphysics* as a whole.

Burnyeat describes as his two main theses the 'non-linearity' of the argument of Z and its 'two-level procedure'. In my view, he has a third equally important and controversial thesis, namely, that Z is mainly investigating, not what οὐσία there are within the sensible realm, but what are the οὐσία of the sensible οὐσία. To see what these theses come to, we need to look at his overall map of Z. He breaks the book down as follows:

(Intro) = Z1-2: The question, what is οὐσία?

(A) = Z3-6, 10-11, and 13-16: the four logical specifications of the οὐσία of a thing as its subject, essence, universal or genus, described in the first sentence of Z3 (1028b33-36).

(A1) = Z3: investigation of οὐσία as subject leads to the conclusion that the οὐσία of a thing is its form. Z3.1028b36-37: logical treatment. Z3.1029a2-30: metaphysical treatment.

(A2) = Z4-6, 10-11: investigation of οὐσία as essence leads to the conclusion that the οὐσία of a thing is its form. Z4-6: logical treatment. Z10-11: metaphysical treatment.

(A3) = Z13-16: investigation of οὐσία as universal leads to the conclusion that the οὐσία of a thing is its form. Z13-14: logical treatment. Z15-16: metaphysical treatment.

(B) = Z17: investigation of the οὐσία of a thing as the cause of its being leads to the conclusion that the οὐσία of a thing is its form. Z17.1041a10-32: logical treatment. Z17.1041a32-b33: metaphysical treatment.

Burnyeat, like most scholars (and rightly), takes the first sentence of Z3—'οὐσία is said, if not in more ways, at least principally in four: for the essence and the universal and the genus are thought to be the οὐσία of each thing, and fourthly the subject [or: and fourthly the subject of these]' (1028b33-36)—as the crucial programmatic statement. But Burnyeat, like everyone else, must make some adjustments to get the actual sequence of Z to correspond to this program. (1) He takes Z17 to be an independent fresh start (developed further in H); but it is not clear why Aristotle thinks a fresh start is needed, or why he did not add any advance notice of it. (2) He takes there to be only three investigations in Z3-16, of subject, essence, and universal, without the further investigation of genus we might expect from the first sentence of Z3. (3) Some parts of Z4-16 are not easy to read as investigating the claims of essence or universal as οὐσία; Burnyeat takes Z7-9 and Z12 as later additions to the original plan, but even so, it is not clear how he will account for the discussions in Z10, Z13, and Z16 of the status of the material constituents of a body (concluding in Z13 and Z16 that these are not actual οὐσία). (4) Perhaps the most interesting difficulty, but the one least often confronted directly, is about how the first sentence of Z3 relates to the question 'what is οὐσία?' described in Z1-2. Let me expand on this last point.

The end of Z1 (1028b2-7) says that we must investigate the question 'what is οὐσία?', and Z2 promptly takes up the challenge. Z2 clearly takes the question to

be, what οὐσίαι there are, and especially whether there are any οὐσίαι separate from the sensible ones, such as Platonic Forms or mathematical. But then, after the last line of Z2 saying that to answer these questions we must ‘first sketch what οὐσία is’ (1028b31-32), Z3 starts talking about what might be the οὐσία *of each thing*. How does this 2-place notion of οὐσία (‘X is the οὐσία of Y’) relate to the 1-place notion of οὐσία (‘X is an οὐσία’) that Aristotle had been discussing before? Z3 and the following chapters must be intended to help in answering the question of Z2, since Aristotle says at the end of Z3 that the investigation is a means to knowing οὐσίαι ‘more knowable by nature’ than the sensible ones (1029a33-b12, cf. Z11.1037a10-17, Z17.1041a7-9; and Z16 does indeed eliminate some candidates from Z2, earth-water-air-fire and the parts of animals and Forms of being and unity). But it is not so clear exactly how the investigation of the οὐσία *of X* is supposed to help resolve Z2’s question about what οὐσίαι there are; and this will turn in part on what we take ‘the οὐσία of X’ to mean. Burnyeat’s answer to this question is very important for his project, but it goes by too quickly.

Burnyeat translates ‘οὐσία’ as ‘substantial being’ in both 1- and 2-place contexts, but he construes ‘being’ as a participle in the 1-place sense, and as a gerund in the 2-place sense. Thus he writes, ‘The last sentence [of Z1] duly puts the question: What is substantial being, the primary being that explains the rest? The question (τίς ἡ οὐσία;) is ambiguous. It could be asking (a) for a list of things or classes of things that enjoy this type of being (the substantial beings), or (b) for an account, analysis, or explanation of substantial being. (a) leads on to Z2, (b) to Z3’ (12-13). The ambiguity Burnyeat is diagnosing is apparently between an extensional question ‘what things possess the primary mode of being?’ and an intensional question ‘what is this mode of being that they possess?’. The last sentence of Z2 would be saying that to settle the extensional question we must first settle the intensional question (‘sketch what οὐσία is’). Burnyeat wants to identify the intensional question with the question of 2-place οὐσία, but can this really be right? It does not make much sense to propose that the primary mode of being that Socrates possesses is Socrates’ underlying subject, his essence, his genus, or the universal under which he falls (or that it is subject, essence, genus, or universal in general). But Burnyeat’s meaning becomes clearer further down: ‘the most illuminating formulation of Z’s central question is in the causal terms used at the end of E: What is the cause of a substantial being’s being in the primary way? What *makes* a substantial being a substantial being?’ (14). Thus, if X is a substantial being, the subject, essence, genus, and universal of X would be candidate causes to explain why X is a substantial being. Burnyeat admits that this causal formulation is not made explicit in Z3 or in the immediately following discussion: ‘this does not become explicit until Z13.1038b7; it takes center stage in Z17’ (14). However, these four strategies for explaining why X is a substantial being will all be shown to converge on a single conclusion, namely, that the substantial being of X is the *form* of X. This conclusion will not always emerge in the most straightforward way, since the form of X is not a genus of X, and pre-

sumably it is also not the subject of X (although it is the subject of some of X's attributes); reflection on the claim that the substantial being of X is the subject or genus of X may lead to revising or even rejecting that claim, but (Burnyeat says) such reflection ultimately supports the conclusion that the substantial being of X is its form. This investigation of the primary mode of being, or of its causes, is supposed to help us resolve the extensional question of Z2, what things are substantial beings; but how exactly it contributes to this remains rather mysterious.

Burnyeat's understanding of the relation between 1- and 2-place οὐσία, and of their role in the argument of Z, sets him apart from the criteria-and-candidates reading of Z, as found notably in Frede-Patzig.² Frede-Patzig agree that in turning from Z2 to Z3 Aristotle turns from an extensional question 'what things are οὐσίαι?' to an intensional question 'what is it to be an οὐσία?' (Frede-Patzig II,24), and they note that the first sentence of Z3 is talking about four things that are said to be the οὐσία of each thing (Frede-Patzig II,35-36), but they do not think that questions about 2-place οὐσία are necessarily intensional, and they refuse to draw a sharp distinction between the meanings of 'οὐσία' in 1- and 2-place contexts: they insist that an οὐσία is always the οὐσία of a thing, and that the οὐσία of an οὐσία must itself be an οὐσία (see Frede-Patzig II,15, 26, and 36). Thus for Frede-Patzig, the subject, essence, genus, and universal of X are candidates to be substances themselves, or, more precisely, they are proposed *criteria* ('Merkmale', II,34) which something should satisfy to be a substance; Aristotle is supposed to reject 'genus' and 'universal' but retain 'subject' and 'essence' as criteria for substance. Aristotle then supposedly tests three candidates for substance—the matter, the form, and the matter-form composite—against these criteria, and concludes that within the sensible domain it is (individual) form that best meets these (and other) potentially conflicting criteria. By contrast, Burnyeat's Aristotle is not worried about any such conflict of criteria, and takes it for granted that ordinary matter-form composites such as plants and animals are οὐσίαι; he regards it as a much more difficult question what *makes* these things οὐσίαι, and his final answer is that it is their forms. It is not clear to me whether Burnyeat also thinks that the form, or more generally whatever turns out to be the οὐσία of an οὐσία, will itself be a further (1-place) οὐσία. My vague impression is that his answer is no. However, I think a number of passages of ZH would make this position difficult to maintain. Notably, Z3 and Z13 use arguments that the matter and the universal are not substances in order to reject proposals that the matter or the universal is the οὐσία of the composite substance (Z3.1029a27-30, Z13.1038b15-16). And H1.1042a12-15 redescribes the Z3.1028b33-36 list of the four things that appear to be the οὐσία of a thing as an appearance that the essence and the subject are οὐσίαι, and that

² However, while the criteria-and-candidates view had been dominant at least in English-language scholarship since the early 1960's, Burnyeat's alternative proposal that Z is primarily investigating the οὐσία of a given οὐσία, and also the way he construes 'οὐσία of', are close to the views that had been developed earlier by Witt 1989 and by Code 1997. A view in the same family has also been developed more recently by Angioni 2008.

‘the genus is more [an οὐσία] than the species, and the universal than the individual’: I do not see how to make sense of this unless Aristotle is assuming that, if the οὐσία of X is Y, then Y has at least a *prima facie* claim to be an οὐσία, and indeed to be more an οὐσία than X is.³

I think Burnyeat is right, against the criteria-and-candidates reading, that Aristotle shows no hesitation about whether plants and animals are οὐσίαι, and no worry about reconciling conflicting criteria for being an οὐσία; and he is right that Aristotle’s main investigation, from Z3 on, is into the οὐσία of a given οὐσία. But I do not think he is right to gloss ‘the οὐσία of X’ (with Code 1997, 357-359) as ‘the cause of X’s being an οὐσία’. Burnyeat seems to cite as textual bases for this gloss Z13.1038b7 and Z17 (14, cited above). But while these texts describe the οὐσία of X as a cause, and in Z17 as a cause of X’s *existing*, neither text speaks of the οὐσία of X as a cause of X’s *being an οὐσία*. Furthermore, Z17 is clearly picking up on the argument of *Posterior Analytics* ii that *what X is* (the answer to τί ἐστὶ) is the cause of *that X is* (the answer to εἰ ἔστι): so ‘the οὐσία of X’ in Z17 seems to mean what this phrase usually means, in Aristotle and other Greek philosophers, namely, whatever answers the question τί ἐστὶ X (rather than Burnyeat’s much more abstract question ‘what makes X an οὐσία’).⁴ Likewise, the first sentence of Z3 is surely proposing the subject, essence, genus and universal of X as plausible answers to τί ἐστὶ X (‘What is Socrates? This flesh and these bones [the subject of Socrates] are Socrates’; ‘What is man? Man is wingless biped animal [the essence of man]’; ‘What is man? Man is an animal [the genus of man]’; ‘What is Socrates? Socrates is a man [the universal under which Socrates falls]’), rather than as plausible explanations of why X is an οὐσία. So the mere fact that a given passage uses a 2-place concept of οὐσία does not mean that it is addressing the intensional question of what it is to be an οὐσία. I agree that the first sentence of Z3 is in fact addressing this intensional question, and that this is marked by the call in the last sentence of Z2 for a ‘sketch of what οὐσία is’. But this ‘sketch’ is just the list of the four things said to be οὐσία and the immediately following description of the subject (1028b33-1029a7): as Burnyeat recognizes (15), Z3.1029a7-8 marks the ‘sketch of οὐσία’ as completed.⁵ So the end of Z2 and beginning of Z3 give us no reason to think that the intensional question governs all of Z3-17. And at least the denials that

³ Note also B5.1001b29-32, ‘affections and motions and relations and dispositions and ratios do not seem to signify the οὐσία of anything, for all of these are said of some subject, and none of them is τὸδε τι’. This argument seems to take for granted that, if X is not a 1-place οὐσία, it also cannot be the οὐσία of anything. This passage is extremely damaging to any attempt to say that while a universal cannot be a 1-place οὐσία (because it is said of a subject), it can nonetheless be the οὐσία of the individuals that fall under it.

⁴ Although perhaps it is open to Burnyeat to argue that the answers to the two questions will coincide. But note that there is at least in an extended sense an οὐσία of X, i.e., an answer to τί ἐστὶ X, even when X is a quality, say courage; this cannot be the cause of X’s being an οὐσία, since X is not an οὐσία.

⁵ Presumably this sketch of οὐσία-as-subject will be supplemented by equally brief sketches of the other senses of οὐσία—e.g., for essence, Z4.1029b13-22.

matter (Z3) or universals (Z13) or earth, water, air, fire, and the parts of animals and being and unity (Z16) are οὐσίαι seem to be addressing Z2's extensional question of what οὐσίαι there are.

Why then, when Aristotle explains what οὐσία is, does he use a 2-place concept of οὐσία? I would say: any οὐσία is the οὐσία of something (even Socrates is the answer to 'τίς ἐστι the man in the corner'), and the οὐσία of X is always an οὐσία, and (has at least a claim to be) μᾶλλον οὐσία than X.⁶ Z2 asks whether there are further οὐσίαι beyond the manifest sensible οὐσίαι, and many philosophers have proposed to reach further οὐσίαι by starting with the manifest things and asking τί ἐστι—thus, as H1 says, the fact that the genus and the universal are said to be the οὐσία of each thing creates the appearance that these are μᾶλλον οὐσίαι than the manifest things, and many philosophers had also proposed non-manifest οὐσίαι either as the essences of the manifest things (Platonic Forms) or as their subjects (atoms and the void, the Receptacle, etc.). So it is reasonable for Aristotle to examine these claims in investigating Z2's question of what οὐσίαι there are, and I would read Z3-16 as yielding some negative results for this extensional question. Burnyeat reads these chapters instead as yielding positive results for the intensional question of what makes the manifest οὐσίαι οὐσίαι (namely, their form), and he thinks this will have positive implications, later in the *Metaphysics* as Aristotle planned it, for the extensional question about οὐσίαι separate from matter; but it is not clear to me how he thinks this will work.

Burnyeat's other key theses, the non-linearity and the two-level structure of the argument of Z3-16 (and also Z17), emerge naturally from his way of thinking about Aristotle's question of the οὐσία of X, and about Aristotle's answer that the οὐσία of X is its form. The argument is non-linear because Aristotle is exploring several different ways of explaining why X is an οὐσία, and showing that each of them leads to the conclusion that the *explanans* is the form of X. Non-linearity means that the investigations of subject, essence, and universal do not form a single cumulative argument, but each begins independently from the first sentence of Z3, without building on each other's results. (Frede-Patzig think Aristotle argues that [individual] forms best reconcile the *conjoined* criteria; Burnyeat thinks *each* investigation leads independently to form.) The two-level thesis means that each of these investigations, and the further investigation of Z17, begins by elucidating a 'logical' specification of οὐσία (as subject, as essence, etc.) using only the conceptual apparatus of the *Organon* theory of predication; only then, in a second stage, does Aristotle introduce the 'physical' concepts of matter and form, and argue that, when interpreted through the physical theory, the logical specification of the οὐσία of X leads to the form of X. The second stage is thus 'meta-physical' in an etymological sense; the first, 'logical', stage is neutral and should be convincing even to someone who does not accept Aristotle's physical theory.⁷ In chapter 5 Burnyeat takes up for deeper investiga-

⁶ At least, if X is an οὐσία; the οὐσία-as-essence of a quality will not be an οὐσία.

⁷ A version of the two-level thesis is already in Code 1988-1989, taken up again in Code 1997. What Code calls 'general essentialism' corresponds to Burnyeat's 'logical' level, and what Code calls

tion this notion of ‘logical’, or of what Aristotle describes as reasoning λογικῶς, and he tries to show that the *Organon*—although Aristotle did not intend it as a single treatise but as at least two, one on analytics and one on dialectic—demarkates a realm of general or topic-neutral or ‘logical’ reasoning where the matter-form distinction is *not* used.⁸ Burnyeat rightly refuses to explain the absence of matter and form from the *Organon* by saying that Aristotle had not discovered these concepts yet; as Burnyeat points out (95-96), Plato has them in the *Philebus* and *Timaeus* and (I would add) the *Parmenides* (158b5-d8). Rather, Aristotle is deliberately avoiding these concepts in the *Organon*, and the interpreter must explain why. Burnyeat thus refuses any chronological solution to the relation between the *Categories* and Z, according to which the *Categories* would be giving an ‘early’ ontology of concrete things as οὐσίαι, and Z would be giving an opposing ‘late’ ontology of forms as οὐσίαι.

(While the *Organon* is ‘before’ the *Metaphysics*, and the *Metaphysics* refers ‘back’ to it in the past tense, this refers to a position in the ideal order of discovery and of teaching, not to the chronological sequence of composition. Burnyeat in chapter 5, 111-124, gives a salutary discussion of Aristotle’s cross-references to what he ‘has said’, and less often to what he ‘will say’, elsewhere. There are many such cross-references in the corpus, many of them helpfully collected in Bonitz’ *Index Aristotelicus* [Bonitz 1870], under the name-heading Ἀριστοτέλης, which as Burnyeat says [111] not everyone would think to look up. Ross had hoped to purge some of these cross-references as later editors’ additions, and to use the rest to establish the chronology of Aristotle’s works. This is absurd; as Burnyeat rightly argues, the references are to earlier and later in an ideal order of learning. You might object that Aristotle would not say in his work *On X* ‘as I have said in *On Y*’ unless he had already written ‘*On Y*’ when he wrote ‘*On X*’, but there is no single moment of composition of a treatise; each treatise is repeatedly updated in response to the others, and all are parts of a synchronic system within which references can be made forward and back.)⁹

a ‘metaphysical conception of substance’ to Burnyeat’s ‘metaphysical’ level, as Burnyeat notes at 8n7.

⁸ See discussion in the next section on the meaning of ‘λογικῶς’ and the extent of the ‘logical’ sections of Z.

⁹ The use of Aristotle’s backward and forward references has been something of a hallmark of Burnyeat’s recent work. He argues that most of Aristotle’s cross-references are to extant treatises, and that on the occasions where these misfire, the reference was to an earlier version that we do not have, or to a later version that we do not have, or to an intended correction that Aristotle never got around to making. (We might instead think of the cross-references as being at least partly to lecture-courses, earlier and later in an ideal course of study, each of which would be repeated many times, with revisions, and no version of which would be *verbatim* identical with any written text. But Aristotle would presumably have updated the written versions to reflect at least roughly what he was saying in lectures.) For a case study with some general discussion, see Burnyeat 2004. That paper also argues that the use of the old system of book-numbering by the 24 letters of the alphabet (otherwise used almost exclusively for Homer), rather than the standard Hellenistic system of book-numbering through an expanded ‘alphabet’ of 27 characters standing for the numbers 1-9, 10-90, 100-900, and thus allowing numbering up to 999 rather than a mere 24, shows that the Aristotelian corpus of multi-book treatises

Burnyeat is bringing out something important in speaking of ‘two-level structure’ in Z. There will be dispute about how best to describe the phenomenon, and some of Burnyeat’s applications of the concept are more convincing than others. (The two-level structure he diagnoses in Z3 is rather trivial—the ‘logical’ part is the single sentence Z3.1028b36-37—and I do not think he is right to see Z15-16 as a ‘metaphysical’ follow-up to a ‘logical’ investigation of the universal in Z13-14.) But, at a minimum, he has brought out something important about Z4-6, namely, that these chapters never mention matter and form. People often read these chapters as being about form, because they assume that ‘essence’ and ‘form’ are equivalent, but even though Aristotle thinks the essence of a matter-form composite *is* its form, ‘essence’ and ‘form’ are drawn from different contexts; Z4-6 argue about essence at a high level of abstraction, and, notably, never mention motion or becoming. *Why* Aristotle should proceed under such restrictions in Z4-6, and drop the restrictions later, will be debated (and, in my view, the ‘metaphysical’ sequel to Z4-6 is not Z10-11 but Z7-9), but Burnyeat has raised a question that will not go away, and he will force readers to be more careful about how and where ‘form’ gets into Aristotle’s argument.

‘Non-linearity’ is a real phenomenon too, but here too one can question how much it implies. Burnyeat claims (51-52) that, after the introductory Z1-2 and the first sentence of Z3, all back-references in Z are to something within the boundaries of the section (i.e., Z3 or Z4-6 and 10-11 or Z13-16 or Z17) or else back to the introduction, and that all the forward references are to something within the boundaries of the section or to the general program for ZH or for first philosophy. But Burnyeat admits that there are several exceptions. Unmistakably Z13.1038b4-6 refers back to the treatment of the subject in Z3 and of the essence in (at least) Z4-6; Z15.1039b26-7 refers back equally clearly to Z8 (Burnyeat, of course, thinks Z7-9 are a later addition, so thinks Aristotle added this reference when he added Z7-9—but why did he add the reference, if he was committed to non-linearity?); Z3.1029a32-33, and perhaps its context, promise a treatment of form. So we do not have *absolute* non-reference between the different sections of Z, and how surprising is it that there are not *many* references? After all, Aristotelian treatises often proceed by sequences of more-or-less independent discussions (say, the discussions of motion, infinity, place, void, and time in *Physics* iii-iv).

What would be striking about the sections of Z is that they are independent routes to *the same goal*, namely, the conclusion that the οὐσία of a thing is its form. But is this in fact what they are all concluding? I will discuss some difficulties for Burnyeat’s handling of individual sections of Z in the next section of this essay, but for the moment we can note that it is very difficult to read Z13-16 as a

must go back substantively to the early Peripatos, with only small-scale modifications later. Burnyeat is here drawing on Goldstein 1968, ‘The History of the Use of Greek Letter Labels’, 269-271; and Burnyeat’s argument has been in turn developed and modified by Primavesi 2007, with copious documentation from the manuscripts. All of these papers, whether their conclusions are right or wrong, deserve far wider attention than they have gotten.

connected argument that οὐσία is form (the conclusion seems to be rather what the last sentence of Z16 reports, ‘that none of the things said universally is an οὐσία, nor is any οὐσία [composed] out of οὐσίαί’, 1041a3-5), and that Z17 mentions ‘form’ only once, in an apparently parenthetical passage that many editors delete as a gloss (1041b8, see Burnyeat 59-60). It is clear from many passages in Z that Aristotle *believes* that the οὐσία of a thing is its form, but the question is whether he has designed Z as an *argument* for that conclusion. More often he simply assumes it (thus Z7.1032b1-2, Z10.1035b14-16, 1035b32), and it looks as if he thinks that anyone familiar with the concept of form from the *Physics* or from *Metaphysics* A will grant that the form of X is at least one of the things that can be called the οὐσία of X—*Metaphysics* A7 and A9 use ‘οὐσία’ for the formal cause, and *Physics* ii 1 argues that the φύσις καὶ οὐσία τῶν φύσει ὄντων (193a9-10) is not their matter but their form.¹⁰ I would say that Aristotle regards this as a physical rather than properly metaphysical thesis, and that he borrows it from physics into metaphysics at the same moments where he borrows the concept of form. In my view Z3-16 are arguing, rather, that attempts to begin with the manifest οὐσίαί and, by asking τί ἐστὶ, to reach some further and prior οὐσία—as, say, the subject, the essence, or the universal of the manifest οὐσίαί—all fail. If so, it is unsurprising that the investigations are mostly independent: they are showing that these separate paths each separately fail to lead to further and prior οὐσίαί. Non-linearity is more striking if Burnyeat’s more positive reading of these chapters is right, since the separate paths would be converging on a single goal, the form.¹¹

But even if several absolutely independent arguments are converging on a single conclusion, it seems to me that non-linearity will not do the work that Burnyeat wants it to. He wants it to block arguments whose premisses are taken from different sections of Z: this becomes clear from the list of quotations he gives from other (mostly recent) commentators (4-6), which he rejects as illegitimately combining considerations from different sections of Z. What also becomes clear from this list is that he is especially concerned to block arguments (such as those he cites from Frede-Patzig and Donini) that would combine a premiss from Z13, that no universal is an οὐσία, with a premiss taken from else-

¹⁰ *Physics* i 7.191a19-20 says, ‘it is not yet clear whether the form or the subject is οὐσία’, but I take it that this is looking forward to *Physics* ii 1, which settles the question. Note also that *De anima* ii 4, likewise part of the physical works, says that the soul is the οὐσία of the animal, because it is its formal cause.

¹¹ Frede-Patzig too seem to have noticed that there are few cross-references, after the programmatic first sentence of Z3, between the different sections of Z, and their explanation seems to be that Z consists of a number of originally independent essays, roughly Z4-6, Z10-11, Z13-16 (or originally Z13-15) and Z17, which Aristotle then tied together by means of the common introduction Z1-3, and that he afterwards inserted Z7-9, and then later someone else inserted Z12 (see their I,24-26 and I,31-35, although it is hard to find a clear statement of their overall view). So what for Frede-Patzig is a byproduct of Aristotle’s method of composition (and would presumably have been eliminated if Aristotle had gotten around to revising properly the composite text of Z) is for Burnyeat essential to Aristotle’s philosophical intentions in Z.

where, that the οὐσία of a composite is its form, to show that Aristotle believes that forms are individual rather than universal. Now I think Burnyeat is absolutely right to say that Z13 is not addressing the issue of individual forms: the chapter never uses the word εἶδος (except at 1038b33, where it is probably better translated ‘species’), which on Burnyeat’s account is because Z13 belongs to the ‘logical’ rather than ‘metaphysical’ part of Z13-16. While Aristotle has said ‘before’ Z13 that the οὐσία of a matter-form composite is its form, he has said this in the ‘metaphysical’ part of a separate investigation (in Z10-11, or in Z7-9 if we do not exclude these chapters from the original version of Z), and so (for Burnyeat) this is not a premiss he can call on in Z13. All this is a useful warning to commentators who see Aristotle as sharing their own obsession with the issue of individual forms: Aristotle is not addressing this issue even in Z13, much less in other chapters. However, if we are asking what Aristotle believes about form, rather than asking what he is trying to accomplish in a given passage, why should it be illegitimate to syllogize from different parts of Z? The only real answer I can find in Burnyeat (chiefly 46-48) is that Z13’s assertion that no universal is an οὐσία is not Aristotle’s final position but only a stage in the aporetic procedure of Z13-16, so that the ‘metaphysical’ Z15-16 might abandon or modify the claim that no universal is an οὐσία. I do not find this plausible (after all, the last line of Z16 repeats the conclusion that no universal is οὐσία), but even if this is right, it would be the aporetic status of Z13, rather than non-linearity, that would be responsible for blocking the inference that forms are not universal.¹²

While I applaud Burnyeat’s efforts to get the issue of individual forms out of the spotlight in Z, it still seems to me that he, like his opponents, is too obsessed with the issue, and lets his concern to ‘neutralize’ Z13 on the issue dictate too much his overall reading of the book. I am also not satisfied with what seems to be his own view on the issue. While Burnyeat, using his privilege as a map-maker rather than a systematic interpreter of Z, never actually says where he stands on individual forms, he leaves a strong impression that he thinks Aristotle does not believe in individual forms. But this view seems to me simply untenable, given *Metaphysics* Λ5.1071a27-29, ‘[the causes and elements of οὐσία] in

¹² Except, perhaps, inasmuch as non-linearity explains why Z13 might operate with a crude distinction between an individual animal and the universal animal, without considering the more sophisticated position of Z10-11 that the οὐσία of an animal might be its form, that is, its soul. Even if this is right, it owes more to the two-level structure of Z than to its non-linearity; but non-linearity would explain why Aristotle ignores this more sophisticated option in Z13 despite having raised it in the ‘metaphysical’ part of an earlier section. Burnyeat *may* (but I am not sure) also be trying to defuse Z13 by admitting that every (1-place) οὐσία is an individual but suggesting that the οὐσία of such an οὐσία might not be; such a strategy cannot work if, as I have argued above, the οὐσία of an οὐσία is always a (1-place) οὐσία. (Mary Louise Gill suggests to me that Burnyeat may instead subscribe to the view, apparently common in the wilder parts of America, that when Aristotle denies that the universal is the οὐσία of what it is predicated of, he is denying that the *Categories*-style universal ‘horse’ is the οὐσία of Bucephalus, and denying that the universal form horse-soul is the οὐσία of Bucephalus’ *matter*, but leaving open the possibility that the universal form horse-soul is the οὐσία of *Bucephalus*, since [supposedly] the form is predicated of the matter but not of the composite.)

the same species are different, not in species, but in that the [causes and elements] of [different] individuals are different, your matter and form and mover and mine, but are the same in universal λόγος’, a text that Burnyeat, as is his privilege, does not quote or discuss.¹³ Burnyeat apparently contrasts the thesis of individual forms with the ‘traditional’ interpretation of Aristotle, which seems to have his sympathy (55 and 55n112), as if on the traditional view Aristotle thought that all forms were universals. Some Latin philosophers prior to 1200 did interpret Aristotle this way, but this was because they had not read the *Metaphysics* or the *De anima*, and so did not know (notably) that Aristotle thought the soul was the form of the body. It is impossible to attribute to Aristotle the view that two animals or plants of the same species have numerically the same soul: *Physics* ii 7.198a21-27 says that the formal and efficient causes of living things (where the efficient cause must be the soul of the generator) are the same only in species, and *Metaphysics* Λ3.1070a21-30 is explicit that the form of a composite substance does not exist temporally prior to the composite, whereas of course the soul of the generator does exist prior to the offspring. Once the texts became available in Latin, it became impossible to deny that Aristotle believed in individual forms, i.e., in numerically distinct forms of different individuals within a species, and as far as I know no high scholastic philosopher ever did deny it: certainly Thomas, Scotus, Ockham, and Suárez do not.

¹³ I do not think this passage implies the extreme view of Frede-Patzig that universals for Aristotle are mere names, and that there are not also non-substantial universal forms. See Konstan-Ramelli 2006 for a determined and ingenious, but doomed, attempt to read the sentence as not implying that different individuals of the same species have numerically distinct forms. In ‘your matter and form and mover and mine’, they take ‘your’ and ‘mine’ as governing only ‘matter’ and not the other terms, and this is grammatically possible. But they also try to take καὶ τῶν ἐν ταύτῳ εἶδει ἕτερα, οὐκ εἶδει ἀλλ’ ὅτι τῶν καθ’ ἕκαστον ἄλλο as ‘of the things that belong to the same species, the causes are different, not by virtue of the form but rather because there is something different [namely, the matter] in each of the different individuals’ (111-112), which is not really possible. (Ἄλλο here is, as they say, distributive, but that is not the problem.) Even if the sentence could be construed this way in isolation, the whole point of the argument in context is (answering the ninth aporia, B4.999b24-1000a4) that the material, formal, and conspecific efficient causes (as opposed to non-conspecific efficient causes like the sun and the oblique circle) of things in different genera are one only by analogy, of things in different species are one only in genus, and of different things in the same species are one only in species, against the opponents’ attempts to find an eternal numerically single ἀρχή through these causes. As Aristotle has said a few lines above, ‘these [ἀρχαί] are not universals [or, perhaps, “these universals do not exist”], for the individual is the ἀρχή of the individuals: for human [is the ἀρχή] of human universally, but there is no universal [human who would be the ἀρχή of all humans universally], but rather Peleus of Achilles and your father of you’ (Λ5.1071b19-22). See also Λ3.1070a21-22, ‘moving causes are [causes] as having come-to-be before [the things of which they are causes], but [causes] as the λόγος are simultaneous [with the things of which they are causes]’—he goes on to give the health of a human, the shape of a sphere, and the soul as examples of causes that do not exist before the things of which they are formal causes, although of course another conspecific soul exists beforehand in the generator (details are worked out in Z7-8, for this last point see particularly Z7.1032a24-25). Konstan and Ramelli motivate their project as rejecting interpretations of Aristotle on which forms would be individuated *intrinsically* (not in dependence on the matter or the composite), or on which human souls would be individually immortal, but they overshoot the mark and wind up attributing to Aristotle the Platonist thesis that he is most at pains to attack in Λ2-5.

Perhaps, however, Burnyeat means merely that on the traditional interpretation forms are not *intrinsically* individual, and are individuated only through their connection with matter; this is indeed (with a qualification about human souls) Thomas' view, but not, for instance, Scotus' or Ockham's or Suárez', and I am not sure why it should be privileged as the 'traditional' interpretation. But in any case it is a view about *how* forms are individuated, and does not dispute the fact *that* they are individuated.¹⁴ However, Burnyeat does not say enough here either about what he thinks about forms and individuation, or about how he views the history of interpretation, to allow a clear judgment on what he means and whether it might be right. This is, of course, his privilege, but since the issue of individual forms seems to be an important motivation in the book, it would be more satisfying if we could hear more.

II

I want now to discuss some selected issues arising from Burnyeat's long chapter 3, on the 'signposts' in Z, which supports his proposal for dividing Z3-17 into four sections (Z3, Z4-6 and 10-11, Z13-16, Z17), each exhibiting a two-level structure. This chapter also gives Burnyeat's reasons for excluding Z7-9 and Z12 from Z as Aristotle originally planned it; the chapter also has an important discussion of the structure of *Metaphysics* H and its relation to Z, and especially to Z17. The chapter is extremely rich and I will not be able to discuss most of its observations and suggestions, but it is important to examine the grounds for Burnyeat's division of Z into the four sections and their two levels, which will be and should be controversial. I will say nothing about his short account of Z3. My main focus will be on Z13-16, where I think his proposals about the argument-structure are least convincing, and on Z17, whose relation to earlier sections (especially to Z13-16) I think he misconstrues. But first I would like to make some comments about Z4-6 and about Z10-11; this will also involve discussing his claims that Z7-9 and Z12 are later insertions, both claims shared with many other scholars (notably Frede-Patzig) but both in my view mistaken.

My main comment about Z4-6 is that Burnyeat does not really do much with these chapters. (No doubt this is in part a protest against other scholars' exaggeration of the significance of these chapters.) For Burnyeat, Z4-6 are treating (not form but) the logical specification of the οὐσία of a thing as its essence; Z10-11 will then identify the essence, anyway the essence of a sensible οὐσία, with the form. More than half of Burnyeat's discussion of Z4-6 (19-25, out of 19-29) is on the structurally important issue of what Aristotle means when he says at the beginning of Z4 'let us discuss some things about [essence] λογικῶς' (1029b13), and how far this 'logical' discussion extends. Burnyeat argues convincingly

¹⁴ I recall Burnyeat as saying in conversation that the real issue was not whether you could have two forms in the same species but whether, if you took away the matter, there would still be two forms or only one. My own response would be that if you took away the matter you would have *no* forms: forms depend on matter not only for their individuation but also for their existence, so the fact that forms are individuated through matter does not make their individuation extrinsic.

against Ross that λογικῶς here does not mean ‘merely verbal’ or ‘linguistic’, but something like ‘from general or abstract considerations, rather than from the particular nature of the thing under discussion’. And he is right to reject Ross’ proposal that the ‘logical’ section is Z4.1029b13-1030a27. But I think he moves too quickly in concluding that the ‘logical’ section is all of Z4-6, and rejecting Michael Woods’ proposal that it is just Z4.1029b13-22. Beginning at 1029b22 and continuing for the rest of Z4-5, Aristotle is examining different kinds of beings (οὐσίαι, the different categories of accidents, οὐσία-accident compounds), and concluding that only οὐσίαι have essences, or that only they do so in the primary sense; this discussion contrasts with Z4.1029b13-22, general considerations about essences that do not depend on what kind of being is under investigation. Burnyeat mentions (24), but seems surprisingly uninterested in, the main conclusion of Z4-5, that only οὐσίαι have essences (primarily); I could form no idea of how Burnyeat thinks this conclusion fits into the overall plan of the argument of Z. But it seems to me that Aristotle thinks this conclusion requires going beyond merely ‘logical’ considerations. Aristotle says that if we like we can say that non-οὐσίαι have an essence or a what-it-is, although not primarily or ἀπλῶς: ‘as in the case of what-is-not some people say, speaking λογικῶς, that what-is-not *is*, not ἀπλῶς but [that it *is*] what-is-not, so in the case of the qualified’ (1030a25-27). Aristotle’s main point in context is that this way of speaking is insufficient: so long as we speak λογικῶς (as — Aristotle implies — Plato did in the *Sophist*), οὐσίαι and accidents and negations will all seem to have the same status, but what is important for the present investigation is to isolate the primary sense in which only οὐσίαι have essences. Therefore, when Aristotle argues at 1029b22-1030a17 that non-οὐσίαι do not have essences, he must be speaking non-λογικῶς; so when he says at 1029b13 that he will say ‘some things about [essence] λογικῶς’, this must, as Woods says, cover only 1029b13-22, the preliminary and general account of what kind of λόγος is the λόγος of the essence of a thing, before the differentiated investigation of the essences of οὐσίαι and non-οὐσίαι.

As with the thesis that only οὐσίαι have essences (primarily), Burnyeat also seems not to do much with Z6 and its investigation of whether a thing and its essence are the same or different; he says that Z6 is ‘semi-detached’ and that Z4-5 would join smoothly on to Z10-11 (26). Once again, it is not clear what role he thinks Z6’s conclusion—that at least the primary things that exist καθ’ αὐτά (that is, οὐσίαι) are identical with their essences—plays in the larger argument of Z. Much of Burnyeat’s interest in Z6 seems to focus on what some scholars seem to think is a problem in the text, namely, why Aristotle’s example of a thing that might exist primarily and καθ’ αὐτό, and which would then have to be identical with its essence, is a Platonic Form, an entity that Aristotle does not himself believe in. For Burnyeat, it is typical of a ‘logical’ discussion, where Aristotle’s conclusions do not turn on the particular natures of the objects under discussion, that Aristotle chooses his examples from other people’s theories (like ‘thunder is the noise of fire being extinguished in the clouds’); so Z6 would be saying in

general that *whatever* may play the role of primary entities (let them be Platonic Forms if those are your favorite entities), they will have to be identical with their essences. And Burnyeat is quite right to insist that Z6 is neutral on whether the primary entities will be forms or composites, individuals or universals—against, notably, Frede-Patzig, who think that Aristotle in saying that the primary οὐσίαι are their own essences, and are therefore essences, is saying that the primary οὐσίαι are forms.¹⁵ However, I think it is perfectly obvious why Aristotle takes Platonic Forms as his example, and they are not a ‘neutral’ example at all. Aristotle is responding to a Platonist argument that tries to show that (some given) X is not identical with the essence of X, and therefore that the essence of X must be some further thing, a Platonic Form. Aristotle points out that the argument would work just as well if the given X is a Platonic Form to begin with, and therefore that if the argument works it will prove too much, an infinite regress of Forms; the Platonist will stop the regress by saying that Forms are identical with their essences, but if that is legitimate, why not stop the regress at the beginning, by positing that an ordinary X is identical with its essence?

This natural and obvious way of reading Z6 also explains how Z4-5 and Z6 fit together. The Platonist argument that Aristotle is answering comes from the sophism at the beginning of Z6 (1031a19-28) that if the X is the Y (ὁ λευκός is ὁ λευκός ἄνθρωπος, or is ὁ μουσικός), and X is the essence of X, and Y is the essence of Y, then the essence of X is the essence of Y (so to be white is the same as to be musical, absurdly). The sophism was probably first used by the Megarians to refute the ordinary belief that, e.g., Socrates is the same as white Socrates;¹⁶ but the Platonists argue that, since Socrates is certainly the same as

¹⁵ Burnyeat’s case against Frede-Patzig on this issue can be strengthened by looking at passages where Aristotle examines, for some X, whether X is the same as the essence of X: this question does not, in general, have anything to do with whether X is a form. Notably, in *Physics* iii 5.204a23-24 Aristotle says that ‘if the infinite is an οὐσία and not [said] of a subject, being-infinite and [what is] infinite are the same’. The issue is not whether the infinite is a form: on the view that Aristotle is criticizing, on which the infinite is an οὐσία in its own right, it would be a *material ἀρχή*. This passage is also seriously damaging to the criteria-and-candidates view that ‘X is not said of a subject’ (or ‘X is itself an ultimate subject’) and ‘X is identical with the essence of X’ are two *prima facie* conflicting criteria for X to be an οὐσία: here the first ‘criterion’ is taken to entail the second. Neither Frede-Patzig nor Burnyeat—nor, as far as I know, anyone else in the now enormous Z-literature—cite this obviously relevant passage.

¹⁶ Compare the sophism that Simplicius attributes to the Megarians at *In Physica* 120,12-17: assuming that things whose λόγοι are other are themselves other, and that things which are other are separate, they argue that white Socrates and musical Socrates are separated from each other, and therefore that Socrates is separated from himself. Simplicius’ information is second-hand, and he is not really trying to understand what the Megarians were doing, but we can see that the argument derives an absurdity from the assumptions (i) that Socrates is identical to white Socrates (and likewise to musical Socrates), and (ii) that a thing is identical to its essence, so that if being-white-Socrates is other than being-musical-Socrates, white Socrates is other than musical Socrates. It is thus very close to the sophism at the beginning of Z6. The Megarians themselves will probably solve the sophism by denying that white Socrates exists at all (because, say, Socrates is not white but merely whitens), or by saying that white Socrates is οὐτις. Aristotle’s mention at 1032a6-10 of a sophism about whether Socrates and being-Socrates are the same (said to arise and to be solved in the same way as the

white Socrates, the only way to solve the sophism is to reject the premiss that X is the same as the essence of X. Aristotle points out that, while we cannot accept *all* instances of the schema ‘X is the same as the essence of X’, to solve the sophism we do not have to *reject* all instances of the schema, but can reject only those instances where X is an accident or οὐσία-accident compound. Thus the Platonist argument does not establish that X is not the essence of X in cases where X is an οὐσία; so it does not establish a Form of X in such cases. Admittedly, the Platonist argument does establish that X is not the essence of X in cases where X is a non-οὐσία, but it does not thereby establish a Form of X, because, as Z4-5 have shown, in such cases there *is* no essence of X.¹⁷ Z4-6 thus work together to dismantle one Platonist argument for the Forms, more specifically one Platonist attempt to use the logical specification of οὐσία as essence to argue that the οὐσίαι of sensible things are further and higher οὐσίαι beyond the sensible world; this is exactly the kind of argument that Z3.1029a33-b12 had proposed to examine. The recent literature on Z mostly misses this anti-Platonist thrust of Z4-6, because it insists on discovering in these chapters a positive argument for Aristotle’s own thesis that οὐσία is form. Burnyeat is right to reject this reading of Z4-6, which say nothing about (any non-Platonic) form; but in his concern to ‘neutralize’ these chapters he misses the opportunity to clarify what they *are* doing, and leaves them oddly disconnected from the larger argument.

This point is connected with the issue of Z7-9, which seem to me to have a better claim than Z10-11 to being the ‘physical’ or ‘metaphysical’ follow-up to Z4-6.¹⁸ Burnyeat (with Ross, the Londinenses, Frede-Patzig, but, curiously, not Jaeger)¹⁹ considers Z7-9 to be an originally independent essay that Aristotle afterwards incorporated into Z, not when he first wrote Z, but at some later time. I will not discuss all the arguments Burnyeat musters (29-30; as he says, ‘these considerations are not all of equal weight’). The argument on which Burnyeat puts most stress, or so I recall him as saying in conversation, is that Z7 is very casual in asserting for the first time in Z—without argument, and in a parenthesis, 1032b1-2—what Burnyeat takes to be the main thesis of Z, that the οὐσία of a thing is its form; and, worse, that Z7 says this in discussing forms of artifacts,

sophism at the beginning of Z6), and his mention at E2.1026b15-18 of sophisms about whether musical and grammatical, or musical Coriscus and Coriscus, are the same or other, are likely to refer to the same or closely related sophisms; compare also *Physics* i 2.185b25-186a3.

¹⁷ Or, if there is an essence of a non-οὐσία X, it is only derivatively, and remains parasitic on the οὐσία that is the *per se* subject of X (see Z4.1030a27-32). Thus if there is an essence of female, it will be what-it-is-for-an-animal-to-be-female, and this will certainly not exist apart from animals.

¹⁸ Even if, as I have argued, Aristotle does not describe all of Z4-6 as investigating λογικῶς, it remains true that these chapters make no use of physical concepts of matter, form, motion, or coming-to-be, and that they contrast in this with Z7-9.

¹⁹ At any rate, not Jaeger 1912 or Jaeger 1923; Jaeger’s note in his 1957 OCT on the beginning of Z7, 1032a12, seems to imply that he now thinks Z7 was originally the beginning of an independent treatise. (The ‘Londinenses’, in a usage due perhaps first to Frede-Patzig, are the collective authors of the *Notes on Book Zeta of Aristotle’s Metaphysics*, Londinenses 1979, and *Notes on Book Eta and Theta of Aristotle’s Metaphysics*, Londinenses 1984.)

and immediately afterwards gives ‘health’ as an example of οὐσία-as-form (1032b3-6), although on Aristotle’s considered judgment in Z neither health nor the form of an artifact is an οὐσία. I would reply that this passage is indeed an embarrassment if you think that Z’s aim is to show that forms are the οὐσίαι of sensible things, or to determine which things do or do not count as οὐσίαι (or as the οὐσίαι of sensible things), but that the embarrassment cannot be blamed on Z7-9. If we remove these chapters, then Z’s first equation of οὐσία with form will be Z10.1035b14-16, which is equally casual and unargued; and Z11.1037a29-30 and 1037b1-3 give curvature as an example of οὐσία-as-form. What we have here is evidence that the equation of οὐσία-as-essence with form is *not* the main thesis of Z, but is casually accepted as already established in the *Physics*, and also that Z is not particularly interested in determining which sensible things properly count as οὐσίαι. Another consideration for Burnyeat is simply that Z7-9 discuss a range of topics, including the spontaneous generation of animals, which have no clear relevance to the main argument of Z; Burnyeat’s own view here (35-36) is that originally Z7-9 were an independent essay on the ‘synonymy principle’, i.e., the principle that every X comes-to-be out of a previously existing X, and that Z9 is dealing with apparent exceptions to this principle, including spontaneous generation. Aristotle would later have incorporated the essay into Z in order to give a more accessible argument, turning on ‘diachronic’ rather than ‘synchronic’ considerations, for the priority of form over matter, and also for the ingenerability of form (37-38); but if we look at Z7-9 in itself we can see that the priority and ingenerability of form are not really its main concerns, and Burnyeat concludes that the essay was originally written for a purpose different from the one it now serves. However, while I grant that the priority and ingenerability of form are not the main concerns of Z7-9, I do not think we need to conclude that these chapters were originally written for a purpose different from their current one, because I do not think Burnyeat is right about the purpose they serve in their present context. To see this we need only apply Burnyeat’s own method of following out the ‘signposts’ in Z.

For although Burnyeat tries to collect both all ‘signposts’ that might refer out of Z7-9 to other parts of Z, and all those in other parts of Z (and H and Θ) that might refer to Z7-9, he misses one crucial one: ‘so it is clear that the cause [consisting] of forms, the way some people are wont to talk of forms, if they are something beyond (παρά) the individuals, is of no use at any rate for comings-to-be and beings (πρός γε τὰς γενέσεις καὶ τὰς οὐσίας); nor would [the forms] be, at any rate for these reasons, οὐσίαι in themselves’ (Z8.1033b26-29). Aristotle is here summing up an argument that Platonic forms are unnecessary for explaining coming-to-be, which is the main argument of Z7-8, and he is equally summing up an argument that Platonic forms are unnecessary for explaining being: he has not said anything about this in Z7-8, and can only be referring back to Z6. And Z7-9 make good sense as an extension of the argument of Z4-6. Z4-6 counter a Platonist argument that Platonic forms are needed to account for the οὐσίαι or beings of things; Aristotle shows that in at least some cases X is the same as the

essence of X, and that the Platonists will need a more specific argument to show that in some cases the essence of X is something beyond the X from which we start. In Z7-9 Aristotle is dealing with a Platonist comeback that starts from the fact of coming-to-be: if this X came-to-be, i.e., if some thing Y came-to-be X, there must have been an essence of X that Y was coming-to-be, and that essence or form cannot itself have come-to-be in the process, and must therefore be something existing prior to this X and not identical with it. (This argument is in fact stated briefly in the eighth aporia at B4.999b5-16, to which Aristotle seems to be responding; Burnyeat unfortunately does not pursue the question of how far Z is responding to the aporiai of B.) Aristotle concedes that the form of X does not come-to-be when this X came-to-be, but he tries to show that this does not imply that the form of X existed *before* this X; he also concedes that there must previously have been *such* a form, in the generator, but he tries to show that the form in the generator is sufficient for generation, without *this* form of X preexisting, and indeed that if *this* form preexisted, generation would be impossible. This anti-Platonist interpretation of Z7-9 is in Averroes, and following him St. Thomas and Fonseca, and seems to me clearly correct.²⁰ But the recent literature, perhaps because it is looking too hard for positive doctrine, has ignored these clues in the medieval commentators, and has focused instead on the theses (the ingenerability of form and the ‘synonymy principle’) that Z7-9 concede to Plato; and if Z7-9 are read as an argument for these theses, then it is indeed hard to see how these chapters would fit into the larger argument of Z.

The main thread of Z, as Burnyeat interprets it, resumes with Z10-11, having been interrupted both by Z7-9 and by the ‘semi-detached’ Z6. Burnyeat’s discussion of Z10-11 is rather short (38-41, but see also 82-86). He sees these chapters as the ‘metaphysical’ follow-up to Z4-5, taking up the investigation of the οὐσία of things as the essence expressed in a definition, but now filling out these notions with a physical theory of matter and form, and concluding that the οὐσία of a physical thing is its form. But this does not fit with the way Aristotle announces the investigation at the beginning of Z10, which is not as a problem about matter and form, but as a problem about parts: ‘since the definition is a λόγος, and every λόγος has parts, and the part of the λόγος stands to the part of the thing as the λόγος stands to the thing, the ἀπορία already arises (ἀπορεῖται ἤδη) whether the λόγος of the parts ought to be present in the λόγος of the thing or not’ (1034b20-24). By Burnyeat’s criteria, this aporia should count as ‘logical’ rather than metaphysical, since it does not use the notions of matter and form. The *solution* to the aporia is ‘metaphysical’, because it turns on the distinction (introduced at 1035a1-4, with a clear reference back to *Metaphysics* Δ25)

²⁰ See the commentaries of Averroes (Averroès 1938-1948 II,838, in the Latin translation Aristoteles 1562-1574 VIII,172), Thomas (Thomas Aquinas 1950, paragraph 1381), and Fonseca (Fonseca 1615 III,240). These commentators describe Z4-6 as arguing that Platonic forms are not necessary either in order for sensible things to be known, or in order for sensible things to exist, and Z7-9 as continuing the argument by undermining a third Platonist argument for the forms, namely, that they are necessary in order for sensible things to come-to-be.

between ‘part’ as ‘part of the matter’ and as ‘part of the form’: Aristotle concludes that all and only those parts which are parts of the form of X should be mentioned in a definition of X, and this implies Burnyeat’s conclusion that the essence expressed by the definition is the form. But Aristotle gets around to drawing this implication only in an offhand equation at 1035b14-16 (‘since the soul of animals—for this is the οὐσία of the ensouled—is the οὐσία in the sense of the λόγος and the form and the essence for this kind of body...’), which is not presented as the solution to the aporia and does not bear any of the emphasis of the chapter. Aristotle’s emphasis is on *parts*, and especially on the question whether the parts are prior to the whole (if a part is in the λόγος of the whole then it is prior to the whole at least in λόγος, but much of the subsequent argument turns on whether the part is prior to the whole in οὐσία). By missing this emphasis, Burnyeat misses that the aporia Z10-11 are addressing (flagged by ἀπορεῖται ἤδη at the beginning of Z10) is the sixth aporia at B3.998a20-b14, asking whether the ‘στοιχεῖα and ἀρχαί’ of things are, as pre-Socratic physicists say, their material constituents, or rather, as Academic dialecticians say, their genera: the physicists and the dialecticians agree that the λόγος of a thing should spell it out into its στοιχεῖα, but they disagree about what those στοιχεῖα should be, and Z10-11 are addressing the claims made by the physicists. Burnyeat is certainly right that Z10-11, like Z4-5, are concerned with the essence of a thing as expressed by the λόγος τῆς οὐσίας; but Z10-11 are concerned specifically with the *parts* of the λόγος, a topic they share not with Z4-5 but with later chapters, such as Z12 on the unity of the parts of a definition, and Z13, which says that ‘none of the [parts] in the λόγος is the οὐσία of anything or exists separate from them or in something else: I mean, for instance, that there is no animal apart from the particular [animals], nor any other of the [parts] in the λόγοι’ (1038b31-34). It seems to me that Z12 and the following chapters should be seen, not as an entirely new section of Z, but simply as turning from the ‘physical’ to the ‘dialectical’ side of the sixth aporia of B, and asking whether the genera and differentiae are prior to the thing in οὐσία as well as in λόγος. When Z16 concludes that earth and water and air and fire and the parts of animals and unity and being are not οὐσίαι, and more generally that ‘none of the things which are said universally is an οὐσία, nor is any οὐσία [composed] out of οὐσίαι’ (1041a3-5), it is concluding that neither the ‘physical’ nor the ‘dialectical’ side of the aporia gives a genuine path to the οὐσία of a thing.²¹

²¹ I am also not satisfied with Burnyeat’s treatment of the ‘recapitulation’ at the end of Z11, 1037a21-b7: ‘First, 1037a21-32 relates the results of Z10-11 to the discussion of Z4-5. Then 1037a33-b7 does the same for the identity thesis of Z6. (Z7-9, as already observed, are absent)’ (41). I am not convinced that these lines are in fact recapitulating Z4-6: they make absolutely no allusion to the main conclusion of Z4-5, that only οὐσίαι have essences (in the primary sense). I would guess that *all* the back-references in 1037a21-b7 are internal to Z10-11; or rather, the initial clause ‘what the essence is and how it is αὐτὸ καθ’ αὐτό has been said about everything generally’ (1037a21-22) is a very quick recapitulation of the results of Z4-9, and all the rest is internal to Z10-11. But while Burnyeat seems to interpret the reference to ‘how [the essence] is αὐτὸ καθ’ αὐτό’ as Frede-Patzig do (‘in welchem Sinne es [the essence] das ist, was eine Sache von sich selbst aus ist’, Frede-Patzig

Burnyeat, however, treats Z13-16 as an entirely new section, devoted to examining whether the universal is the οὐσία of a thing; and he agrees with Jaeger and Ross and Frede-Patzig that Z12 is a later insertion (a genuinely Aristotelian text but, Burnyeat suggests, not inserted by Aristotle himself), interrupting the overall argument of Z. Burnyeat furthermore says that ‘the one certainty is that Z12 is a torso’ (44), not an originally autonomous essay like Z7-9 but a fragment ripped out of some quite different context. These are bold claims (their repetition by a series of famous scholars may have dulled the sense of their boldness), and I do not think that Burnyeat’s brief discussion gives anything like the weight of argument that would be needed to justify them.²²

What seems to be the main argument, for Burnyeat and others, for the conclusion that Z12 is a later insertion, is that Z11 marks the end of the second branch coming out of Z3’s list of ways to be the οὐσία of a thing, the discussion of the essence, while the opening of Z13 refers back to the Z3 list and picks up the third branch, the discussion of the universal: Z12 would belong neither to the one nor to the other, and would interrupt the plan of Z as governed by the Z3 list. (Burnyeat says, 43, that Z12’s discussion of the unity of the elements in a definition would be ‘a discussion of substantial being as essence, and that section of Z was firmly closed at the end of Z11’.) This does not seem at all conclusive. It does not look to me as if the end of Z11 closes off anything more than Z10-11, but even if it marked the end of a unified discussion of essence Z4-11, Z12 could be an appendix to that discussion, dealing with an unresolved problem about essences. Furthermore, Z3’s list includes not only the ὑποκείμενον and essence and universal but also the genus, and rather than say (as Burnyeat and most commentators do) that the genus is treated implicitly along with the universal in Z13-16, it would be better to say that Z12 is the promised treatment of the genus, that it uses considerations about the unity of definition to infer that ‘either the genus does not exist at all beyond (παρά) the species of the genus, or it does but as matter’ (1038a5-6) and that ‘the ultimate differentia will be the οὐσία and definition of the thing’ (1038a19-20).²³ But this way of dividing up Z is not quite satisfac-

I,101), and thus as referring back to Z4.1029b13-22, which start by saying that the essence is what is said of something καθ’ αὐτό, the question how the essence is αὐτὸ καθ’ αὐτό sounds more as if it is asking whether the essence exists as a Platonic form, and so would refer to the conclusions of Z6 and Z8 that it is not necessary to posit the essence as such a form παρά the sensible things. In any case, if everything before Z10 can be summarized this quickly, and the main conclusion of Z4-5 entirely omitted, we cannot infer anything from the omission of Z7-9. (On Z11, let me incidentally commend Burnyeat’s 40n74, making good use of Aristotelian parallels to refute Frede-Patzig’s suggestion that Aristotle might not be rejecting Young Socrates’ analogy that man is to flesh and bone as circle is to bronze.)

²² 42-44, largely restating the considerations given by Jaeger 1912, 53-62, and repeated with variations by Ross 1924 i, xxx-xxxi and by Frede-Patzig I,25-26.

²³ Another standard argument is that ‘Just like Z7-9 the chapter is not recalled in the summary of H1, which at 1042a21 passes from Z11 straight to Z13’ (42). But 1042a21-22 says ‘again, neither the universal nor the genus is οὐσία’: how do we know that this is meant to summarize only Z13 and not Z12? True, H1 says nothing about the specific problem of the unity of definition: but it also says nothing about the content of Z14-16 unless 1021a21-22 is stretched to cover them too, nor does it

tory either: not only Z12 but also Z14 are quite explicitly about genera (and how they combine with differentiae), and it seems violent to assign all of Z13-16 to the universals, when the discussion of material constituents in Z13 and Z16 seems to be parallel, rather than subordinate, to their discussion of universals. So rather than assigning Z10-11 along with Z4-9 to the essence, Z12 to the genus, and Z13-16 to the universal, I would prefer to say that the discussion of the essence was just Z4-9, and that Z10-16 are a discussion of the parts of the λόγος of a thing, especially but not exclusively the genera, with Z13 adding a special discussion of the universal just in case anyone should maintain that the universal is the whole οὐσία of the thing, rather than (the more plausible view, 1038b16-18) that the universal is just a part of the λόγος, and liable to the same arguments as other parts of the λόγος.²⁴

For the stronger and stranger conclusion that Z12 is not merely an insertion but a ‘torso’, Burnyeat’s arguments come from some forward-pointing ‘signposts’ in Z12: at the end of the chapter, 1038a34-35 (and perhaps also at the beginning, 1037b8-9) Aristotle seems to describe what he says here as only a *first* account of definitions by division, and at 1037b27-29 he says that we should *first* discuss definitions by division, apparently implying that we will later talk about some other kind of definition. But rather than see these as references to a lost or unfinished continuation of Z12, we can take the promise of a further treatment of (the unity of) genus-differentia definitions as referring to H3 and H6, and the other kind of definition to be the λόγος of a thing through its material constituents, which is the other possibility discussed in the sixth aporia of B and taken up in Z10 (and mentioned H2.1043a14-16). The problem of the unity of the parts of a λόγος is not just a digressive concern of Z12 and H6, but a persistent theme of Z10-H6: Z14 and again H3 accuse the Platonists of being unable to account for the unity of genus and differentia, and in Z17 the form of the syllable βα is something beyond the material constituents β and α that enter into the λόγος of βα, and accounts for their unity. We are likely to miss these connections if we take Z12 as a fragment of something else.

Burnyeat, of course, takes Z13-16 as a self-contained investigation, with Z13-14 as its ‘logical’ and Z15-16 as its ‘metaphysical’ portions. There are two rather different aspects to this investigation. On the one hand, it is an investigation of the universal, or, more specifically, of the claim of a universal under which a

mention the argument of Z4-5 that only οὐσίαι have essences in the primary sense, or the argument of Z6 that primary οὐσίαι are the same as their essences. Presumably we are not going to exclude all these chapters from the original version of Z.

²⁴ This interpretation involves some deviation from Z3, which would seem to suggest four branches of investigation, the ὑποκείμενον, essence, universal, and genus (but no worse a deviation than what Burnyeat proposes, which would collapse the four branches into three, and then add a fourth branch at Z17-H6). But Z3.1028b33-34 does say that ‘οὐσία is said, *if not in more ways*, at least principally in four’, and I would suggest that parts in the λόγος other than genera would be the extra ways (see the examples of how line is the οὐσία of triangle, and so on, in Δ8.1017b17-21): genera are the main example of parts in the λόγος, and Aristotle uses them here as a shorthand for all parts in the λόγος. For more argument, see Menn 2001.

thing X falls to be the οὐσία of X. This investigation is supposed to lead yet again, once the matter-form distinction has been introduced, to the conclusion that the οὐσία of a thing is its form: Burnyeat says ‘the task of Z13-16 is to show how the idea that substantial being is a universal such as *human* leads eventually, after suitable refinements and restrictions, to the conclusion that substantial being is form’ (54). This is not what it looks like to me: since the end of Z16 sums up the results of Z13-16 by saying that ‘none of the things which are said universally is an οὐσία, nor is any οὐσία [composed] out of οὐσίαι’ (1041a3-5), I would have said that Aristotle is not refining but simply refuting the idea that substantial being is a universal. But—so as not to get bogged down again in the issue of universal or individual forms—let me turn to the other aspect of Z13-16 that Burnyeat emphasizes, namely, that it discusses an aporia about the possibility of definition: according to Burnyeat, the last lines of Z13 (1039a14-23) raise a dilemma against the possibility of defining X, and Z15, drawing on the matter-form distinction, shows how to resolve the dilemma, and thus shows that universal forms can be defined, although individual matter-form composites cannot. Burnyeat’s formulation of the dilemma needs closer examination: while I agree with him that an aporia about definition is very important to the argument of Z13-16, I do not think that that aporia is precisely Burnyeat’s dilemma, and I do not think that Z15 gives a solution; rather, I think that the solution is given only in Z17 and in chapters of H that develop the basic insight of Z17. If I am right about that, that would imply that the different sections of Z are less independent than Burnyeat suggests, as well as calling into question his analysis of Z13-16 as a ‘logical’ aporia followed by a ‘metaphysical’ solution (it would also call into question his description of Z13’s thesis that no universal is an οὐσία as merely provisional and aporetic).

For Burnyeat, ‘the two horns of the dilemma’ are two propositions, (U) and (P), which he spells out as follows:

‘(U) No universal is the substantial being component of a substantial individual.
 (P) No substantial being consists of parts which are actual substantial beings.’
 (49)

Aristotle does indeed state these propositions in Z13 (and, as we have seen, repeat them at the end of Z16),²⁵ and they might be taken as posing a dilemma if the constituent parts of an οὐσία envisaged in (P) were necessarily physical or material constituents rather than dialectical constituents (universals predicated of the thing and present in its dialectical λόγος). The dilemma would be: if the οὐσία X has a λόγος, that λόγος must spell X out into some kind of constituents: but those can be neither the physical constituents mentioned in a physical λόγος of X, by (P), nor the dialectical constituents mentioned in a dialectical λόγος of X, by (U): since these are only available kinds of constituents and of λόγοι (these

²⁵ Anyway, he states (P) (Z13.1039a3-4, Z16.1041a3-5), and something close to (U) (cf. esp. Z13.1038b8-15); Burnyeat’s formulation of (U) is interpretive.

are the two kinds of λόγοι contrasted at B3.998b11-14), it follows that X has no λόγος at all, and thus that no οὐσία is definable. However, Aristotle does not seem to think of (U) and (P) as posing a dilemma in this way; rather, he thinks of (P) as a generalization of (U), saying that no οὐσία contains actual οὐσίαι *either* as dialectical *or* as physical constituents. (This is clear from the way the arguments go in Z13: after a long series of arguments that no universal is an οὐσία, and especially that a universal under which an οὐσία X falls is not a further οὐσία contained in X, culminating in the argument that universally predicated terms signify not a this but a such [1038b8-1039a3], Aristotle adds ‘this is also clear in the following way: it is impossible for an οὐσία to be [composed] out of οὐσίαι present in it in actuality’ and so on [1039a3-14], clearly giving a further supporting argument for the claim that no universal is an οὐσία present in the οὐσίαι it is predicated of; only then does he pull the threads together, arguing on both counts that ‘if neither can any οὐσία be [composed] out of universals, on the ground that [universals] signify such rather than this, nor can any οὐσία be composed of οὐσίαι in actuality, every οὐσία would be incomposite, so there would be no λόγος of any οὐσία’ [1039a14-19].) Thus rather than (U) and (P) constituting a dilemma, (U) is sufficient in itself to argue that there is no dialectical λόγος of any οὐσία, and (P), generalizing (U), is sufficient in itself to argue that there is neither a dialectical nor a physical λόγος of any οὐσία. The argument is indeed dilemmatic, but the dilemma it turns on is not (U)-or-(P) but οὐσία-or-non-οὐσία: the λόγος of the οὐσία X cannot be out of οὐσίαι (for the reason given in (U), or the more general reason given in (P)), but it also cannot be out of non-οὐσίαι, since the things out of which X is composed must be ἀρχαί of X, i.e., things existing prior to X, and no non-οὐσία can be prior to an οὐσία.

How then is this dilemma resolved? Z13 does promise a solution: ‘so there would be no λόγος of any οὐσία. But everyone agrees, and we have said before,²⁶ that there is definition either only of οὐσία or of (οὐσία) especially: but now [we have argued that there is definition] not even of this. So there will not be definition of anything. Well (ἦ), there will be in one way but not in another way. What has been said will be clearer from what follows’ (1039a19-23). Burnyeat says that Z15 resolves the dilemma by saying that the form is definable and the matter-form composite is not, but I really cannot see how this is supposed to help. And even if we could work out some argument using the matter-form distinction to resolve the dilemma, it remains that Z15 itself does not draw the connection, and does not say anything about solving the aporia. Indeed, although Z15-16 are by Burnyeat’s criterion ‘metaphysical’, since they mention matter, they do not make much fuss about the concepts of matter and form, as if these concepts brought the discussion to an entirely new level (Z15-16 mention ‘matter’ three times, ‘form’ never, except for Platonic forms): given how little Z15

²⁶ As Burnyeat notes (51), this back-reference is ‘an exception to non-linearity—the only one I have found’; see his discussion, 51-52. But, as I have argued above, there are two other clear exceptions.

and especially Z16 have to say about form, it seems very hard to take these chapters, as Burnyeat wants, as building up (from the proposal that the οὐσία of a thing is a universal) to the conclusion that the οὐσία is the form. And the end of Z16 restates (U) and (P) just as they were stated in Z13, with nothing to suggest that these theses have been reinterpreted in the light of the matter-form distinction, or that any dilemma arising from them has been resolved. If the aporia could be solved simply by saying that the λόγος is of the form without the matter, then Plato would have a solution, but Aristotle seems insistent that Plato does *not* have a solution, that the aporia affects Platonists and physicists equally.

Burnyeat seems in general to understate how much of Z13-16 is directed against the Platonists. Thus he says very little about Z14, describing it as ‘a polemical appendix to Z13’ (52) directed against Platonic ideas; but since all of Z13 was polemical, and mostly against Plato, this hardly shows that Z14 is a mere afterthought. Likewise, Burnyeat takes the main point of Z15 to come in 1039b20-31, arguing that forms are definable and matter-form composites are not; he describes the second half of Z15, 1040a8-b4, arguing that eternal individuals and especially Platonic ideas are not definable, as a ‘polemical excursion’ (52), when I would have said that the whole chapter was building up to the conclusion that Platonic ideas are not definable, continuing the argument of Z14 that Platonic ideas cannot be composed out of genus and differentia. Burnyeat similarly describes the latter two-thirds of Z16, 1040b16-1041a3, as another polemical excursion (52), thus implying that the exclusion of the simple bodies and the parts of animals from οὐσία (1040b5-16) is a principal part of Aristotle’s argument and that the exclusion of τὸ ἔν and τὸ ὄν is not (1040b16-27). I would have said that these two sections, Z16.1040b5-16 and 1040b16-27, are clearly parallel, and that Aristotle is continuing the argument of Z13-15 to show that neither the ultimate material constituents nor the most universal predicates, the chosen principles (and οὐσία and parts of the λόγος) of physicists and dialecticians respectively, are genuine οὐσία, so that we must look in a different direction in order to find ‘eternal οὐσία beyond the ones we know’ (1041a1-2).²⁷

²⁷ There is something paradoxical here. I think that Z13-16 are about the claims of parts in the λόγος, both physical and dialectical, to be οὐσία and ἀρχαί of the thing, so I take both Z16.1040b5-16, dealing with the material constituents, and 1040b16-27, dealing with the highest universals, to be entirely in order. Burnyeat, who thinks that Z13-16 are about the claims of the universal, should think that 1040b5-16 is digressive and that 1040b16-27 is in order, but in fact he says the reverse (52 on 1040b16-1041a3 as a ‘polemical excursion’; for the main point of Z6, see 54-55 and the map itself, 10). I suppose this is because he thinks that what Aristotle says non-digressively about universals should be *in favor* of universals, once identified with forms, as οὐσία (see the first full sentence of 54), and that Aristotle’s rejection of the claims of material constituents is the obverse of his acceptance of the claim of the form and thus of the universal. Frede-Patzig conclude instead that *both* 1040b5-16 and 1040b16-27 are digressive, and that the discussion of the universal is really just Z13-15, with Z16 just a pile of appended odds and ends (see their I,35 and II,297). The correct conclusion is that Z13-16 are about *all* parts in the λόγος, both dialectical and physical. In other words, it is about Burnyeat’s thesis (P), and Burnyeat is in a good position to see this, but he does not, because he remains too committed to the idea that Z13-16 as a section should be about universals, and perhaps too committed in general to the idea that the question of universals is a main concern of Z.

While Z14-16 argue that neither the pre-Socratic physicists nor the Platonic dialecticians can solve the *aporia* presented at the end of Z13, I think that Aristotle offers his own solution only beginning in Z17. Burnyeat takes Z17 to be a new beginning, independent of Z3 (and opening a new way to answer the questions of Z2), and he takes it to be a new argument that the οὐσία of a thing is its form. But this does not seem to be the main concern of the chapter. Indeed, Z17 mentions 'form' either just once or never, depending on whether we keep τοῦτο δ' ἐστὶ τὸ εἶδος in 1041b8 or delete it with Christ and Jaeger and Frede-Patzig (Burnyeat is agnostic, 59-60): if form is mentioned at all, it is parenthetically. The main thesis of Z17 is rather that the οὐσία of a thing is a kind of ἀρχή that is neither a στοιχεῖον nor ἐκ στοιχείων: the λόγος of a thing does indeed mention its στοιχεῖα, but the οὐσία that it manifests is not one or all of those στοιχεῖα, but rather something over and above the στοιχεῖα and presupposing the στοιχεῖα; in some of Aristotle's examples, the οὐσία is the cause that unifies many στοιχεῖα into a single thing (and these cases make clear that the οὐσία cannot be itself a further στοιχεῖον or ἐκ στοιχείων, on pain of a regress), while in other cases the οὐσία is a differentia that presupposes the genus.

If στοιχεῖα were always the material constituents of a thing, then to distinguish the οὐσία from the στοιχεῖα in this way might not be very different from saying that the οὐσία of a thing is its form. But even a Platonist, who will agree that the οὐσία of a thing is its form, may still think that the οὐσία is a στοιχεῖον or is ἐκ στοιχείων, for instance by being a series of juxtaposed genera and differentiae, which is how the Platonists think of it according to Z14-15. H3.1043b10-14 says, in criticism of the Platonists: 'nor is man animal and biped, but there must be something over and above these, if these are matter, something which is neither a στοιχεῖον nor [composed] out of a στοιχεῖον, but the οὐσία; but they leave this out, and state [only] the matter'. More generally, N4.1092a6-7 says that the Academics go wrong in that 'they make every ἀρχή a στοιχεῖον', that is, a constituent present in the thing and combining with other constituents to constitute the thing, so that to spell the thing out into its constituents would be to give its λόγος τῆς οὐσίας. Z13-16 are arguing against *both* the physicists' and the Platonists' attempts to spell things out into such στοιχεῖα, and to discover the ἀρχαί, the first of all things, as constituents of the λόγοι of ordinary things: both attempts must fail, if for no other reason, because the ἀρχαί of an οὐσία X must be prior to X and must therefore themselves be οὐσίαι, and 'it is impossible for an οὐσία to be [composed] out of οὐσίαι present in it in actuality'.

Aristotle's own account in Z17 and H is supposed to be immune to this criticism, because for him the οὐσία of X is not one or all of its στοιχεῖα, and so the στοιχεῖα need not be (properly speaking) ἀρχαί of X, need not be prior to X, and so need not be οὐσίαι: they can, for instance, be *potential* οὐσίαι, as Z16 says of the material constituents and as is apparently also true of the universal and the genus. The οὐσία of X will be what actualizes this potentiality. Z17 can thus give a general procedure for giving the λόγος of X: first collect the Y that is the proper subject of which X is predicated (this might be the genus, or a plurality of στοι-

χεῖα like β and α if X is the syllable $\beta\alpha$, or a subject like the moon if X is lunar eclipse), and then find the cause for this Y 's being X : Y in itself is only potentially X , and the οὐσία of X is the cause that actualizes the potentiality.²⁸ This solution is unavailable to a Platonist, who cannot say (for instance) that the animal that is a στοιχεῖον in the λόγος of horse is only potentially horse, or only potentially quadruped, since the Platonists think that this animal is an eternally self-subsistent form, which cannot change and is not potentially anything other than what it is actually. The concluding lesson of Z is not about what things are οὐσίαι (natural things?) or about what their οὐσίαι are (their forms?), but about how to find the οὐσία of a given thing, and about what kind of principle of a thing its οὐσία will be.

III

Beyond his rereadings of individual chapters of Z and his proposals about the overall argument-structure of the book, Burnyeat also makes proposals for how to read Z as part of the larger unit ZH , as part of the still larger unit $ZH\Theta$, and as part of the larger unfinished project (anyway, the project not finished to Aristotle's satisfaction) of the *Metaphysics*. He gives a particularly detailed and useful treatment of the relations between Z and H at the end of his chapter 3 (62-77). But I want also to call attention to his proposals on the larger contexts in chapter 6, on 'The Place of Z in Aristotle's *Metaphysics*'. Although his comments here are necessarily sketchy, they should have an important impact in reopening the discussion of the larger project of the *Metaphysics*. The idées fixes of the recent literature on Z have made the project of Z seem quite disconnected from anything else; without them, we may find it easier to see the larger argument-structures of the *Metaphysics*. Often, and rightly, Burnyeat bypasses the recent literature to take up issues that Jaeger had raised either in 1912 or in 1923.

Jaeger in 1912 believed that the *Metaphysics* was a collection of a number of short autonomous works, which Jaeger called μέθοδοι or λόγοι, in most cases identical with books of the *Metaphysics* (but ZH are a single μέθοδος). Jaeger thought that Aristotle himself had begun the process of assembling them into a larger work, what Jaeger called the 'main lecture course' [Hauptvorlesung], tied together especially by the aporiai of B : Jaeger thought that $AB\Gamma E$ were a continuous segment of this work, and that MN and $Iota$ were fragments intended to be incorporated in the same work, but that ZH and Θ were written in pursuit of a different project, a theory of sensible οὐσίαι rather than the theory of suprasensible οὐσίαι that was the aim of the main work. Jaeger thought that $ZH\Theta$ had been inserted in the main work, against Aristotle's intentions, by early Peripatetic edi-

²⁸ Burnyeat, however, divides $Z17$ into a 'logical' section 1041a10-32 and a 'metaphysical' 1041a32-b33, and thinks that in the 'metaphysical' section Y is always the matter. I do not see any special transition at 1041a32, which seems to be smoothly continuing the line of thought begun at 1041a14 (the main division of the argument seems to come rather at 1041b11), and I do not think Aristotle sees any difference in principle between the cases where Y is a genus, or a plurality of στοιχεῖα, or a matter in the most straightforward sense.

tors, but that α and Δ and K and probably also Λ had been added only much later (perhaps by Andronicus): Λ was originally a completely independent lecture on theoretical philosophy, not belonging especially to metaphysics (since Jaeger thinks $\Lambda 1-5$ would count rather as physics), but, since the intended theological culmination of the main work was lost or was never written, the editors inserted Λ in its place.

Thus far Jaeger in 1912; by 1923 Jaeger had rightly seen the impossibility of separating E from ZH Θ and assigning E to a theological, ZH Θ to an ontological project: E1 clearly asserts both that first philosophy is a science of being in general and that it is a science of $\text{o}\upsilon\sigma\acute{\iota}\alpha\iota$ existing separately from matter. Jaeger still thought that ZH Θ had been written in pursuit of an ontological project and most of the rest of the *Metaphysics* in pursuit of a theological project, but he thought that Aristotle himself had tried to sew the two together, although, in Jaeger's view, Aristotle's attempt to show that theology and ontology were two descriptions of the same science was a sad failure. Jaeger thus thought that Aristotle himself had put most of the *Metaphysics* together out of things he had written at different times, although he still thought that later editors had inserted $\alpha\Delta\text{K}\Lambda$. Burnyeat, like most scholars nowadays, is more respectful than Jaeger of Aristotle's attempt to unify ontology and theology, and thus has a higher estimate of Aristotle's success in integrating the *Metaphysics*. But he accepts Jaeger's fundamental picture of a number of originally separate texts that Aristotle himself tried to integrate into a systematic treatise on first philosophy, and he takes up Jaeger's questions of how Aristotle went about doing this and how far he succeeded. This is far better than the lazy view (sometimes falsely ascribed to Jaeger) that we can study any one book without worrying about the larger project since the books of the *Metaphysics* were simply 14 different Aristotelian texts put together by Andronicus (there is absolutely no evidence to support this idea—see Menn 1995—and a look at the cross-references, especially to and from B, should be enough to dispose of it).

Even to the relatively atomizing Jaeger of 1912, ZH are a single project, and indeed it would seem very hard to doubt this: H starts by saying that 'we must reckon up the results arising from what has been said and, having summarized the chief heads of the discussion, give the inquiry its completion' (1042a3-4, Burnyeat's translation, 67), and gives a (selective but perfectly recognizable) summary of Z (H1.1042a4-24) before going on to draw further conclusions about matter and form: Burnyeat argues convincingly (66-67) that the 'summarizing the chief heads of the discussion [of Z]' is just what happens in H1.1042a4-24, and that the 'reckoning up the results' and 'giving the inquiry its completion' are what happen afterwards, from H1.1042a24 to the end of H. H thus presents itself as drawing positive conclusions from the discussions of Z. If Burnyeat is right that the non-linearity and two level structure of Z3-17 prohibit our reading Z as a systematic treatise on $\text{o}\upsilon\sigma\acute{\iota}\alpha$, then it will be particularly important to have Aristotle's own systematic conclusions in H (as Burnyeat says, 'H is metaphysical throughout; both non-linearity and the two-level structure disappear' [68]). It is

thus surprising how far some scholars of Z have ignored or devalued H. The second sentence of H says ‘it has been said that we are seeking the causes and ἀρχαί and στοιχεῖα of οὐσία’ (1042a4-6); this is clearly supposed to be a description of the ‘seeking’ we have been doing in Z. However, this description fits rather badly with the criteria-and-candidates description of the project of Z, which does not seem to be any kind of causal inquiry (so much the worse for the criteria-and-candidates description, since every Aristotelian science, including metaphysics, must be a knowledge of causes). The Londinenses try to discredit H1 by noting that Z nowhere literally says that we are seeking the causes of οὐσία, and pointing to various omissions or alleged discrepancies in H1’s summaries of Z: they go so far as to suggest that the H1 summary may be a spurious interpolation.²⁹ Frede-Patzig, while not stooping to this kind of thing, manage never to mention the offending sentence H1.1042a4-6, despite their own claim (I,21) that ZH are a unified treatise on οὐσία.

H1.1042a4-6 goes quite well, of course, with Burnyeat’s view of Z as investigating the οὐσία of the agreed-on οὐσία, and Burnyeat does a nice job (62-68) of defending H1.1042a4-24 as an intelligent summary of the heads of discussion of Z—rather than of its conclusions, which are discussed not in the summary but in the main body of H. The summary in H1, besides omitting or treating very quickly some other sections of Z,³⁰ seems to skip Z17; Burnyeat explains this by saying that ‘the summary is part of a textual unit that begins where Z17 begins’ (67), in other words that Z17 begins a new discussion, and that, as part of that new discussion, Aristotle finds it useful to survey the results of the *previous* discussion, Z1-16, in the light of the new insights of Z17. Indeed, Burnyeat sees not just H1.1042a4-24 but all of H as developing the line of thought of Z17, and he suggests that the book-division between Z and H is arbitrary and post-Aristotelian, and that ZH could just as well have been divided into Z1-16 and Z17-H (66-68).³¹ Burnyeat sees H1.1042a24-H2 as a systematic discussion of οὐσία as composite, as matter, and as form; rather than see H3-5 as having any particular argumentative structure, he describes H3 and H4-5 as loose-leaf ‘folders’ of notes on form and on matter respectively; such piles of notes more typically occur at the end of Aristotelian books, but (Burnyeat suggests) here Aristotle put them in the middle so that the book will end climactically with H6 (69-74).

²⁹ They list among ‘possible conclusions’: ‘the summary is an editor’s connecting work (Andronicus is known to have indulged in such)’ (Londinenses 1984, 2). The claim about what is ‘known’ about Andronicus is pure fantasy.

³⁰ See my reservations expressed above on Burnyeat’s use of apparent omissions in H1 (and Z11) to argue that Z7-9 and Z12 were later additions to Z.

³¹ Note that Montgomery Furth’s Eek translation of ZHΘ (Furth 1985) had already marked Z17-H as a separate unit. Note also that what Burnyeat says here seems to be in some tension with his saying that Z17 has the same two-level structure as earlier sections of Z, and abstains from drawing on those earlier sections, while H abandons the two-level structure and nonlinearity: for why would this change happen in the middle of the unit Z17-H? On the other hand, I think Burnyeat’s case for two-level structure in Z17 is weak (see a note above), so I would recommend abandoning this rather than the grouping of Z17 with H.

Indeed, H6 is the intended climax of ZH as a whole, solving the outstanding problem from Z about the unity of definition.³² The problem could not be adequately solved in Z, since it requires a rethinking of matter and form in terms of potentiality and actuality (76): this rethinking is the task of H, which thus winds up the business of Z, and also makes the transition to the account of potentiality and actuality in Θ , and thus ultimately also to the theology (more on this below).

To add my own comment here: I think Burnyeat is right that all of H is following out lines of thought from Z17, but I think we can do more with this idea, and make more sense of the argument of H, if we take Z17 as I suggested above, as offering the key to solving Z13's aporia against the possibility of a λόγος τῆς οὐσίας by proposing that the οὐσία of a thing is an ἀρχή that is neither a στοιχεῖον nor ἐκ στοιχείων, but presupposes the στοιχεῖα as the composition of a syllable presupposes the letters or as a differentia (if correctly given) presupposes the genus. Z17 does not itself say how to give the λόγος τῆς οὐσίας of a thing, but (I would say) H applies the fundamental insight of Z17 to show how to find the λόγος τῆς οὐσίας of X: first find the appropriate subject of which X is predicated (this will be its genus or matter), then find the appropriate differentia of that subject (this is how H2, clearly drawing on Z17, advises us to find the οὐσία-as-form of X; H2 treats the composition as a kind of differentia). And, equally importantly, H argues that if we do *not* adopt Aristotle's approach to οὐσία we will *not* be able to solve the aporia of Z13, that no οὐσία can be composed either of non-οὐσίαι or of οὐσίαι present in it in actuality—which Burnyeat is wrong to distinguish from the aporia about the unity of definition. It is not enough to *say* that the genus is matter and the differentia is its form and that matter and form are united as potentiality and actuality: we have to actually give a genus and differentia that would make this true, which is not easy for anyone, and is impossible for the Platonists, for whom the genus and differentia must be eternal οὐσίαι with no unactualized potentialities—'those [= Platonists] who pursue defining as they are accustomed to cannot answer and solve the aporia' (H6.1045a21-22, cf. H3.1044a2-9). It seems to me that H, including the parts Burnyeat describes as mere loose-leaf folders, in fact gives a fairly well-connected argument that the aporia against the possibility of a λόγος τῆς οὐσίας can be solved on the basis of Z17, and on that basis alone—and, in particular, not on a Platonist basis.³³

³² Recall that Z11.1037a18-20 had promised a discussion of this problem, and that Burnyeat agrees with Jaeger that the reference is not to Z12; but he thinks it is a genuine promise of H6, while Jaeger thinks both 1037a18-20 and H6 are editorial insertions.

³³ I also think that, by drawing too great a distinction between genus-differentia composition and matter-form composition, Burnyeat's discussion of H6 goes wrong on Aristotle's theory of definition. Burnyeat draws a sharp distinction between genus-differentia definitions, which specify the form alone ('type (b) definitions', 74), and "'this in that" definitions which specify both the form and the matter composing individuals of the relevant kind' ('type (c) definitions', 74-75). I would have said that while no definition can specify an *individual* matter, every scientifically acceptable definition must specify the appropriate matter of the definiendum, what Aristotle in $\Delta 24$ calls 'the matter of the form' (1023b2), and H gives us directions on how to find that appropriate matter (there is an appropriate matter of bronze triangle and also a [different] appropriate matter of triangle). Burnyeat thinks

The questions about H necessarily involve us in questions about the larger-scale organization of the *Metaphysics*. As remarked above, the Londinenses voice scepticism about H1's assertion that 'it has been said that we are seeking the causes and ἀρχαί and στοιχεῖα of οὐσίαι' (1042a4-6); what does Burnyeat take Aristotle to be referring back to here? One might have thought the answer was obvious. Γ1 says that we are looking for ἀρχαί and causes of being, and Γ2 says we will find these by looking for causes of οὐσίαι; E1 says that we are looking for causes of being, and E2 follows Δ7 in dividing being into four senses whose causes we might seek, being *per accidens* (discussed and dismissed in E2-3), being as truth (discussed and dismissed in E4, taken up again in Θ10), being as said of the categories and primarily of οὐσίαι (to be discussed in ZH) and being as potentiality and actuality (to be discussed in Θ1-9; the openings of Θ1 and Θ10 mark transitions from one sense of being to another). There is apparently a smooth transition from the end of E4, which says 'let these [*per accidens* and as truth] be set aside, and let us investigate the causes and principles of being itself *qua* being' (1028a2-4), to Z1, which distinguishes the senses of being corresponding to the different categories, and says that we need concern ourselves only with οὐσία.³⁴ It might seem obvious, then, that H1.1042a4-6 is

that H6 distinguishes these two kinds of definition and gives different solutions to the problem of unity for each type, when I would say that H6 thinks *every* definiendum is in some way a matter-form composite: it seems to me that H6.1045a33-35 leave no escape whatever from this conclusion. When at 1045a36-b7, and again in the last line of the book, 1045b23, Aristotle considers 'things that have no matter either sensible or intelligible' (1045a36), which are 'immediately a one, just as they are immediately a being' (1045b3-4, cf. 1045b23), Burnyeat takes these things to be forms defined by genus-differentia definitions (75-76), when I would have said that they are things having no matter and therefore no genus and no definition and no components needing to be united. (This goes with Burnyeat's claim, 60, that the 'simple things' of which 'there is no investigation or teaching, but there is a different mode of investigation of such things' at Z17.1041b9-11 are the forms we get by analyzing matter-form composites, when I would have said they were eternally unchanging οὐσίαι immune to matter-form analysis.) At 76n153 Burnyeat speaks of 'the analogy between genus and matter that [Aristotle] sometimes mentions but never firmly endorses (Δ28.1024a36-b9; Z12.1038a6-8; I8.1058a1, 23-24)': I do not understand how in particular the last-cited text can be read in so weak a way. When Burnyeat comes back (83-86) to sketch his interpretation of Aristotle's theory of definition, he says that a single species, e.g., of fish can and must be given two different definitions: the first philosopher will give a genus-differentia definition of the form alone, while the physicist will give a this-in-that definition of the composite taken universally; the first philosopher will aim at the form as a principle of being, the physicist at form as a principle of motion. I find this completely un-Aristotelian: Aristotle is clear (notably in *Physics* ii 2) that the forms of natural things are said like snubness, that form and matter are correlative and neither can be known without the other, and that it belongs to the physicist, and only to the physicist, to define the forms of natural things; Aristotle worries about demarcating the competences of the physicist and the first philosopher, but he never entertains the possibility that they might both define the same forms. (The only text I can think of that might be taken this way would be the passage in *De anima* i 1 culminating at 403b15-16, but there the first philosopher would consider πάθη—such as, perhaps, intellection—which are separated and not merely abstractable from matter, and *Physics* ii 2 makes it clear that the forms of natural things *cannot* be considered in this way without destroying scientific knowledge of them.) Mansion 1969 remains a useful corrective.

³⁴ Indeed the link-sentence 1028a4-6, transmitted as the last sentence of E, which is an alterna-

referring back to E4-Z1, in the context of the overall program set out in Γ 1-2 and E. But Burnyeat denies it, because he thinks the connection between E and Z is post-Aristotelian (63-64, referring back to 11-12): following the Jaeger of 1912, he thinks that Aristotle intended AB Γ E as ‘a connected chunk of text, a sequential portion of the inquiry’ (127), and that ‘the next integrated chunk of the *Metaphysics* is ZH Θ , written independently of AB Γ E, to which they do not refer’ (128). Burnyeat says this picture is ‘widely accepted’ (127), and perhaps it is—although even Jaeger, by 1923, thought that Aristotle had tried to integrate ZH Θ with the earlier books—but in any case it needs argument. Several points call for comment.

First, I find it strange that the Jaeger of 1912, and now Burnyeat, should think that E is continuous with Γ and not with Z. Burnyeat argues that Z is not a continuation but the beginning of a treatise because it begins without a connecting particle (11)³⁵—but E also begins without a connecting particle. More importantly, it is hard to imagine that E could ever have existed without ZH Θ . At 2½ Bekker-pages E is by far the shortest book in the Aristotelian corpus apart from α (not counting some individual bits of the *Parva Naturalia*; next-shortest are *Metaphysics* H and *Eudemian Ethics* viii and *Topics* iii and vii, but each of these is the ‘completion’ of the preceding overlong book),³⁶ and it is clearly just the beginning of something. E says that we should study the causes of being, says that there are four relevant senses of being, and quickly eliminates two of them: this makes sense only as an introduction to a positive treatment of the two remaining senses. (Indeed, Jaeger 1912 agrees that E was meant to lead into an account of οὐσία, but he insists that it should have been an account of *suprasensible* οὐσία, a progression rudely interrupted by a Peripatetic editor’s insertion of the ZH Θ account of sensible οὐσία [101-113]. But E1 makes clear that we will

tive to the first colon of the first sentence of Z, Z1.1028a10-11, would produce a continuous text of EZ with no natural place to put a break. E4.1028a4-6 is bracketed by many editors, and indeed it is surely the work of someone trying to tie E and Z together, but there is no clear reason why this someone should not have been Aristotle, unless you think that Aristotle could not have referred back to Δ as a preceding book—but then this objection would tell against Z1.1028a10-11 as much as against E4.1028a4-6.

³⁵ That is, Z begins without a connecting particle if we keep Z1.1028a10-11 rather than the alternative E4.1028a4-6, which does have a connecting particle. As noted above, the only clear objection to E4.1028a4-6 also tells against Z1.1028a10-11, so people who object to E4.1028a4-6 on this ground are in no position to infer anything from the presence or absence of connecting particles in these sentences.

³⁶ *Metaphysics* Δ is of course also long, but E is not completing its argument, but beginning an argument carried on in Z and subsequent books (see above on the transition from E4 to Z1). There are also very short books in the *Problemata*, but the book-division here is a special case: each book is something like an open file to which problems related to a given subject-matter can be added. In any case, as Burnyeat 2004 says (178n3), the *Problemata* in its current form is post-Aristotelian, although including some genuinely Aristotelian material. (Burnyeat there, and Primavesi 2007, 68-70 note that the *Problemata* uses the Hellenistic book-numbering system, while all other Aristotelian treatises that are long enough that the systems would diverge, i.e., 6 books or more, use the old Homeric system [except the *Eudemian Ethics*, see Primavesi 2007, 70-73]. But the *Problemata*, as the only treatise in the corpus with more than 24 books, hardly has a choice.)

reach this knowledge of suprasensible οὐσία by knowing the *causes* of being, so the investigation of οὐσία has to start with the agreed οὐσίαι and examine whether there is a way to get from these to suprasensible οὐσία; which is just what Z does.) Even if we decide that ZHΘ were originally written independently, we will still have to conclude that Aristotle then wrote E as an introduction to ZHΘ, in order to fit these books into the project of studying the causes of being, as announced in Γ—and indeed this is something like what Jaeger thought in 1923. I do not understand why Burnyeat rejects this. Fortunately, it may not matter so much for him, since unlike Jaeger he sees no incompatibility between the projects of ABΓE and of ZHΘ: theology and ontology are two descriptions of the same science, and ZHΘ, like ABΓE, are a contribution to first philosophy (11, 128-130). And Burnyeat is willing to see ZHΘ as addressing aporiai from B—in particular, ‘Z2...makes it clear that the ultimate goal of the inquiry is to answer ...[the aporia] from B: Are there any substantial beings besides the sensible ones?’ (128)—where Jaeger thought that ZHΘ had an entirely separate agenda from B. But (as noted above) Burnyeat’s reading of Z does not make as much use of B as it could and should, and this may be because he has taken over Jaeger’s idea that ABΓE and ZHΘ were originally independent pieces of writing.³⁷

Burnyeat also does not do much with Δ, and this too is a puzzle. He takes for granted ‘the well-attested independence of Δ’ (12, cf. 127), but this is another scholarly myth like the Andronicus story. Perhaps the ‘attestation’ is the fact that two ancient catalogues of Aristotle’s works list a one-book treatise Περὶ τῶν ποσαχῶς λεγομένων ἢ [τῶν] κατὰ πρόσθεσιν,³⁸ which is presumably Δ (the *Metaphysics* cites Δ as ἐν τοῖς περὶ τοῦ ποσαχῶς, Z1.1028a10-11, Iota 1.1052a15-16). But these catalogues also list amidst the works on dialectic a Περὶ [τοῦ] αἰρετοῦ καὶ [τοῦ] συμβεβηκοτός that is surely *Topics* ii-iii (or just iii), and nobody takes this as evidence that Aristotle did not intend this text as part of the *Topics*.³⁹ The catalogue-entries show only that people sometimes copied Δ by itself, and it is hardly surprising that they would do so. Indeed, as Burnyeat rightly says against Jaeger, Δ, unlike the rest of the *Metaphysics*, could never have been given as a lecture, but is a written resource for Aristotle’s stu-

³⁷ However, one reason why it may matter for Burnyeat that he thinks E goes with ABΓ and not with ZHΘ is that this may encourage him to tolerate the contradiction between his reading of Z, on which the forms of natural things can be defined without reference to matter (see Burnyeat 83-86 and a note above), and E1.1025b18-1026a6, which (like *Physics* ii 2) is clear that they cannot. But this is a misinterpretation of Z, falling into the error for which Z11 criticizes Young Socrates and other Academics, of trying to define the form without the matter; I hope this is not motivating Burnyeat to separate Z from E.

³⁸ The title is #36 in Diogenes Laertius’ list (Düring 1957, 43), #37 in the *Vita Hesychii seu Menagiana* (Düring 1957, 84; accepting, with Düring, some obviously necessary textual changes). As Jaeger points out, the title Περὶ τῶν ποσαχῶς λεγομένων must have arisen from a conflation of Περὶ τῶν πολλαχῶς λεγομένων with Περὶ τοῦ ποσαχῶς (Jaeger 1912, 119).

³⁹ #58 in Diogenes Laertius’ list (Düring 1957, 44); #56 in the *Vita Hesychii* (Düring 1957, 84). Similarly the Ὑπερ τοῦ μὴ γεννᾶν, in Diogenes Laertius #107 (Düring 1957, 47), or Περὶ τοῦ μὴ γεννᾶν, in the *Vita Hesychii* #90 (Düring 1957, 85), is surely *Historia Animalium* X.

dents like the *Selection of Contraries* and the *Historia Animalium* (116, and cf. 138, and the important 115n60 on the whole question of lectures and written texts).⁴⁰ So Δ was a ‘published’ written text before the *Metaphysics* as a whole was, while the *Metaphysics* was still in process; nonetheless, Aristotle intended his work on first philosophy as a treatise and not *only* as lectures, and there is no reason to think he did not intend Δ to be part of that treatise. Since Γ promises to study the ἀρχαί and causes and στοιχεῖα of being and of its *per se* attributes such as unity and plurality and sameness and difference, and since we cannot do this without distinguishing the senses of these equivocal terms, it is no surprise that, before beginning the work in earnest, we get a distinction of the several senses of ἀρχή and cause and στοιχεῖον (Δ 1-3), being and unity and plurality (Δ 6-7), sameness and difference (Δ 9), and so on; and Aristotle does indeed refer to Δ , more or less explicitly, in subsequent books of the *Metaphysics*, especially for the fourfold distinction of senses of being that governs EZHΘ and especially wherever he needs a distinction to resolve some aporia from B; and he refers to Δ *only* in these books (it is sometimes said that he refers to Δ in texts outside the *Metaphysics* too, but this again is scholarly myth).⁴¹

Burnyeat cites from Jaeger the point that, although the *Metaphysics* cites Δ with διειλόμεθα πρότερον or the like (Z1.1028a10-11, Iota 1.1052a15-16), suggesting an earlier part of the same work, it also cites it with phrases like διήρηται ἡμῖν ἐν ἄλλοις (Θ1.1046a4-6, Iota 4.1055b6-7, Iota 6.1056b34-35), suggesting a different work; Jaeger assembles a number of parallels where Aristotle says εἴρηται ἐν ἑτέροις πρότερον, in each case referring to a different work that comes earlier in an idealized order of learning rather than to an earlier part of the same work, and so Jaeger resolves the tensions between the different *Metaphysics* citations of Δ by saying that here too πρότερον is a cross-reference to a different work (Jaeger 1912, 118-120, Burnyeat 12). But this depends on uncritical notions of ‘the same work’ and ‘different works’. Jaeger’s examples of εἴρηται ἐν ἑτέροις πρότερον are all cross-references between (often closely connected) parts of Aristotle’s Περὶ φύσεως, e.g., from the *Meteorology* back to the *On Generation and Corruption* and from this back to the *Physics*. The Περὶ

⁴⁰ This is enough to explain why there is no ‘shorter version of Δ ’ in *Metaphysics* K: if K1-K8.1065a26 are a student’s notes from Aristotle’s lectures corresponding to B1E (or his reworking of those notes for his own lectures), we would not expect a version of Δ , which would not be given as lectures but would simply be made available in the library.

⁴¹ Ross 1924 i, xiv and xxv says that Δ is cited not only in later books of the *Metaphysics* but also at *Physics* i 8.191b29 and *On Generation and Corruption* ii 10.336b29. But the latter passage says merely ‘being is better than not-being; it has been said elsewhere in how many ways we speak of being’, which could be referring to anything, and Δ 7, on being, does not say that being is better than not-being. The former passage says ‘this is one way [of solving Parmenides’ aporia about coming-to-be out of being or out of not-being], and another is that the same things can be said in the sense of potentiality and in the sense of actuality; this has been determined with more precision elsewhere’: this does not refer to anything in Δ 12, on δύναμις, and could only with great difficulty be referring to Δ 7.1017a35-b9, which are too short to determine anything with much precision and say nothing about Parmenides’ aporia. On this last point see Burnyeat’s 120n66, which proposes that the reference is instead to *On Generation and Corruption* i 3.317b14-18.

φύσεως (as Aristotle titles it, e.g., at *Metaphysics* A8.989a24) can be regarded as a single long work, or as the *Physics* and then the *De caelo* and so on, or as the *Physics* (= *Physics* i-iv) and then the *On Motion* (= *Physics* v-viii, or v-vi and viii) and then the *De caelo*, or however coarsely or finely we choose to divide it on any given occasion; a reference to what has been said ἐν ἄλλοις or ἐν ἑτέροις or ἐν τοῖς περὶ X always refers to a unit of text contrasting with the present unit, but the units can be of any scale.⁴² Aristotle's cross-references are to earlier and later places within the same idealized series of lectures that an idealized learner would attend (even if there was no one occasion when Aristotle actually gave them all in this sequence, and no actual learner who attended them all, and even if Aristotle sometimes contradicts himself on what the ideal order would be),⁴³ or within a series of texts putting in written form the content of that idealized lecture-series. The *Metaphysics* too is such a series of texts, earlier and later in the ideal order of learning, and teaching the science of first philosophy as the Περὶ φύσεως teaches the science of physics: this order within the *Metaphysics*, which is *roughly* the order of the books as we now have them, is indicated by the cross-references within the text, including the references in later books back to Δ, and also the promissory note Γ2.1004a25-31, which certainly seems to be pointing forward to Δ. All of this seems very much in the spirit of Burnyeat's use of cross-references in the text, and it could be used to bring out more about the argument-structure of Z in itself and in relation to the other books.

As noted above, Burnyeat insists against Jaeger that ΖΗΘ and Λ1-5 do belong to first philosophy, even if their main immediate concern is with the οὐσίαι or ἐνέργειαι (that is, the forms) of sensible composites; he cites Ζ11.1037a10-17 for the claim that these forms are studied in one way in physics and in another way in first philosophy (128-129). But what exactly makes the difference? Sometimes Burnyeat says that physics treats the form or nature as a principle of motion, while first philosophy treats it as a principle of being (86, cf. 128-129 and 133-134); elsewhere he says that a study of sensible οὐσία is first-philosophical just insofar as it is intended as a step toward understanding non-sensible

⁴² For a survey of Aristotle's, and later ancient writers', ways of referring to the *Physics*, see Ross 1936, 1-6. *Metaphysics* Θ refers back to Z as ἐν τοῖς περὶ τῆς οὐσίας λόγοις (1049b27-28); H, being itself part of the discussion of οὐσία, cannot refer back to Z by this formula and so says simply ἐν ἄλλοις (1043b16), but all of these texts could be referred to from outside as parts of a larger unit, e.g., 'on being' or 'on first philosophy'. (Iota cites something from Z as ἐν τοῖς περὶ οὐσίας καὶ περὶ τοῦ ὄντος λόγοις, 1053b17-18, a form of reference that would have been impossible in Θ, which is part of the λόγοι περὶ τοῦ ὄντος although not of the λόγοι περὶ τῆς οὐσίας.) *Sophistical Refutations* 2 refers to things in the *Topics* as ἐν ἑτέροις or ἐν ἄλλοις, although the *Sophistical Refutations* begins with a δέ connecting back to the *Topics*, and although the last chapter of the *Sophistical Refutations* summarizes Aristotle's achievement in discovering a method for drawing inferences about any given subject from plausible premisses (183a37-b2), i.e., in the project of the *Topics* as a whole, with a very close echo of the first sentence of the *Topics*. *De anima* iii 3.427a23-25 says 'Empedocles says [B106] and ἐν ἄλλοις [B108]', and this is not evidence that B106 and B108 come from different poems; likewise when *Politics* viii 3.1338a25-30 cites a version of *Odyssey* xvii 382-385 and then says that Odysseus ἐν ἄλλοις says what he says at *Odyssey* ix 7-8.

⁴³ On one such contradiction, see Rashed 2004.

οὐσία (128-129), which is what Aristotle seems to be saying at Z11.1037a10-17. Presumably Burnyeat thinks that these two ways of drawing the distinction will coincide, that just by studying form as the οὐσία of sensible things we will be taking a step toward the knowledge of non-sensible οὐσία (129). But how exactly?

The criteria-and-candidates reading of Z is able to tell a story here, going something like this: ‘In order to establish a universal science of being, we need to find something that is being in the primary way, so that everything else is said to *be* by virtue of some relation to what *is* in this primary way; for something to be an οὐσία is just for it to *be* in this primary way. But there are different and *prima facie* conflicting criteria for something to be an οὐσία (i.e., to *be* in the primary way), and Z shows that, within sensible things, the thing that best meets these different criteria is form. But the forms of sensible οὐσίαι meet these criteria only imperfectly, because they are not separate except in λόγος; this leads us to look for a form that is separate ἀπλῶς, which will be a form existing entirely without matter, a divine form. Such a divine form will exemplify the primary meaning of “form”, the primary meaning of “οὐσία”, and the primary meaning of “being”; by studying the way of being of divine forms, we can come to understand in sequence the derivative ways of being of other forms, the even more derivative ways of being of other οὐσίαι, and the even more derivative ways of being of non-οὐσίαι.’ (This is, notably, the account of Frede 1987.) Burnyeat, of course, cannot accept this account, since he rejects the criteria-and-candidates reading of Z on which it rests: he will say only that the form is the (2-place) οὐσία of the composite οὐσία, not that it is (1-place) οὐσία to a higher degree than the composite οὐσία. It is also a serious problem for the ‘divine form’ story that, as Burnyeat rightly points out (following Ryan 1973, Burnyeat 130n8 and 76-77n155), Aristotle never describes any immaterial substance that he himself believes in (as opposed to alleged substances that he discusses because Plato believed in them) as a form at all—much less as the primary kind of form. Indeed, as far as I can see, ‘form’ for Aristotle always means formal *cause*, and there is nothing that Aristotelian immaterial substances—νοῦς or νόησις or however they should be described—could be formal causes of, and so they cannot be forms.

For this reason, Burnyeat tries to connect Z with theology using the notion of actuality rather than the notion of form: Z showed that the οὐσία of a sensible οὐσία is its form, and then ‘H reworked the concepts of matter and form in terms of potentiality and actuality, these being the concepts we need to make the transition to the non-sensible realm where neither matter nor form apply’ (130), thus showing that the οὐσία of a sensible οὐσία is its actuality; ‘Θ then undertakes a careful analysis of potentiality and actuality as such’ (130), facilitating the study of divine οὐσίαι, which are pure actuality without potentiality (so A6.1071b12-22, A8.1074a31-38). Burnyeat thus sees Z, H, and Θ as steps in a developing argument that οὐσία—first the οὐσία of composite οὐσίαι, then non-composite οὐσία—is actuality. But I would ask: even if Z thus ultimately helps us under-

stand the *way* of being of non-sensible οὐσίαι, how does it help us answer the question whether there *are* any non-sensible οὐσίαι—the task that Burnyeat had described as ‘the ultimate goal of the inquiry’ of Z (128)? My own answer would be: Z examines arguments that, were they successful, would show that asking τί ἐστὶ of the sensible οὐσίαι leads to a further οὐσία existing prior to the sensible οὐσίαι, like Platonic forms or atoms and the void or the Receptacle of the *Timaeus*, and it shows that these arguments do not in fact succeed; this is an important, albeit negative, contribution to answering the question whether there are non-sensible οὐσίαι. I thus agree with Burnyeat that it is Θ, rather than Z, that connects positively with theology, but I would say that it does so not simply by clarifying the notions of potentiality and actuality, as in Θ6, but by the argument of Θ8 that every potentiality requires a prior actuality, which allows the first philosopher to argue, as in Λ6, to a first cause of motion that is pure actuality.

We might think that *Metaphysics* Θ, in connecting the account of οὐσία with theology, is connecting Z with Λ. But it is not so clear that Burnyeat believes this. It has become common in the secondary literature to say that, while the ontology of Z is supposed to lead to a theology, that theology is *not* Λ (or Λ6-10), but that post-Aristotelian editors substituted Λ, originally a completely independent work, in place of the intended theology of the *Metaphysics* that they could not find (because it was lost, or because Aristotle never managed to write it).⁴⁴ Frede, in particular, must maintain this, because his version of the criteria-and-candidates reading of Z requires that Z lead up to a theology showing that divine forms exemplify the primary senses of form, of οὐσία, and of being, and then showing how the derivative senses of being can be understood once we have understood the primary sense. Since Λ does nothing of the kind (Λ breathes no hint that ‘being’ or οὐσία are said of God in any different sense than of Socrates), Frede must posit a lost or never-written theology containing doctrines quite different from anything that is preserved. Since Burnyeat rejects the criteria-and-candidates reading of Z, and does not suggest that there is anything deficient in the way that Socrates is an οὐσία, it is not clear that he has any reason to believe in any non-Λ theology. Nonetheless, he describes as ‘now uncontroversial’ the claim that Λ is an independent treatise (132). The curious thing is that, by the end of the book, Burnyeat himself seems no longer to believe this claim. He proposes, as ‘what Plato calls a μῦθος, a story that might just be true’ (147), a story

⁴⁴ See Frede’s introduction to Frede-Charles 2000, 1-3 (and again 53), for a statement of this view, presented as a ‘fact’ on which there is ‘general agreement’ (1). As noted above, Jaeger believed something like this, except that he thought that while ABTE were looking forward to a theology, Z in its original version was not (and that passages in Z that promise a discussion of immaterial substances are later additions). The view I am describing does not necessarily hold, as Jaeger did, that Λ does not belong to metaphysics as a discipline; Frede, for instance, does not believe this. The view that Λ was originally an independent work seems to go back to Bonitz 1848-1849 ii, 24-25; Ross 1924 i, xxvii-xxix follows Bonitz and Jaeger. For a discussion of earlier views on the unity or disunity of the *Metaphysics*, see Menn 2009b.

on which Aristotle, having to flee from Athens after the anti-Macedonian uprising of 323 with the *Metaphysics* unfinished, and perhaps rightly sensing that he had not much longer to live, wrote Λ in a great hurry: not the slow careful discussion of immaterial οὐσίᾱ that he might have hoped to write, but an abbreviated sketch, with some of its sentences mere notes, and summarizing or reusing bits of earlier works when necessary to fill a gap,⁴⁵ but ‘at least he got to the end... He had had his say about God. His *Wisdom* was completed at last’ (149).

This sounds rhetorically like the ‘uncontroversial’ story on which later editors would have substituted an independent Λ for the missing conclusion of the *Metaphysics*, except that Aristotle would have substituted it himself. But then there no longer seems to be any reason to say that Λ is not the intended conclusion of the *Metaphysics*: certainly Λ would fall short of Aristotle’s hopes, but on the story Burnyeat tells—and he thinks the story is *possible*—he would have written Λ with the intention of completing the *Metaphysics*, and not as an independent work. Perhaps Burnyeat thinks that, instead of picking up where ZH Θ leave off, Λ 1-5 would repeat the content of ZH Θ (in a shorter version), and only Λ 6-10 would give a theological conclusion of the *Metaphysics* (cf. 132). But, as Burnyeat rightly notes, Λ 1-5 do not simply repeat ZH Θ (in fact there are parallels only between Λ 3 and Z7-8, and more loosely Λ 1 and Z1-2), but use some of the same material to address a different concern: ‘the immediate task...is to determine the number of principles required to explain sensible substantial being (1069a32-33: Are they one or many?) before going on in Λ 6-10 to provide the

⁴⁵ Let me call particular attention to Burnyeat’s discussion (141-145) of the status of Λ 8, or more precisely of Λ 8 together with the last paragraph of Λ 7 (1073a3-13). It has long been noticed that Λ 8, the discussion of the number of the unmoved movers of the heavens, is stylistically distinct, and in particular much fuller than the rest of Λ , and the usual inference has been that is a Λ 8 is a later addition to an earlier version of Λ . But it could equally well be *earlier* than its surroundings, part of an earlier text that Aristotle cannibalized in composing Λ . Blass 1875 had noted that much of Λ 7.1073a3- Λ 8 avoids hiatus (Blass was the person who first discovered that Plato avoids hiatus in the *Sophist*, *Statesman*, *Philebus*, *Timaeus*, *Critias*, and *Laws*, presumably to compete with Isocrates who imposes this rule of euphony on himself), and inferred that Aristotle was excerpting here from an earlier exoteric work of his, perhaps the *De philosophia*; and it is indeed hard to imagine why else Aristotle would avoid hiatus here. The non-hiatus-avoiding parts of Λ 8 would be what Aristotle added when he incorporated this earlier text into Λ , presumably at the same time that he wrote the rest of Λ . Burnyeat here quite rightly follows and builds on Blass (as had I in an unpublished paper from 1990, Menn unpublished, which Burnyeat did not know—we compared notes after the *Map* was written, and discovered that we had both followed Ross’s reference back to Blass and had both realized that Blass was right and Jaeger and Ross wrong about Λ 8). One reason why most scholars had rejected Blass’s view is that Λ 8 reports the concentric-sphere planetary models not only of Eudoxus but also of his follower Callippus, and Callippus’ dates had seemed too late for the *De philosophia*. Burnyeat argues that it is only Callippus’ astronomical calendar (the ‘Callippic cycle’) that must be dated as late as 330 BC, and that his planetary models may be much earlier. This proposal is possible (although we might think that Callippus would have derived the parameters for his models from observations recorded in terms of his calendar), but it is unnecessary. Aristotle’s reports of Callippus do not avoid hiatus (1073b33 ἐτίθετο Εὐδόξῳ, 1073b35 τὸ αὐτὸ ἐκέλευε Ἀπεδείδου) and belong to the later stratum of Λ 8, added when Aristotle incorporated it into Λ , updating his account of the older Eudoxean astronomy.

Aristotelian alternative to Platonist views about non-sensible substantial being' (132). And, I would add, these are not two disconnected projects, one in $\Lambda 1-5$ and one in $\Lambda 6-10$: rather, $\Lambda 1-10$ connectedly examine the principles of sensible οὐσία, with a view to discovering whether some of these principles are eternally unchanging οὐσία. $\Lambda 2$ argues that there is no single material principle (like the Receptacle of the *Timaeus* or the 'all things together' of Anaxagoras) existing before all changeable οὐσία, $\Lambda 3$ argues that the form of a changeable οὐσία does not exist before the composite οὐσία (as it would if it were a Platonic form), and $\Lambda 4-5$ argue that pursuing any kind of constituent causes of things will lead to a principle that is one only by analogy rather than to a single eternal separately existing principle; by contrast, the path to the heavenly bodies as causes of the generation of sublunar species, and thence to the movers of the heavens, will lead to numerically single immaterial οὐσία, and this is the path pursued in $\Lambda 6-10$.⁴⁶ Thus $\Lambda 1-5$ do not duplicate ZHΘ, but draw lessons from them, and $\Lambda 6-10$ continue to draw lessons from these books: in fact, it is $\Lambda 6$ that contains the clearest reference back to Θ. $\Lambda 6$ has cited, almost verbatim, the aporia from B6.1002b32-1003a5 on whether the ἀρχαί are δυνάμει or ἐνεργεία (1071b22-26);⁴⁷ Aristotle now endorses the position that the ἀρχαί are ἐνεργεία, and argues that the other position would yield impossible results; then, in order to disarm the argument for the other side of the aporia, which had turned on the priority of δύναμις to ἐνέργεια, Aristotle says, 'as for thinking that δύναμις is prior to ἐνέργεια, this is right in one way and not right in another way: it has been said how (εἴρηται δὲ πῶς)' (1072a3-4). What can only be a reference back to Θ8, with a mere εἴρηται (not εἴρηται πρότερον or ἐν ἄλλοις), makes it impossible that Λ could ever have been an independent survey of first philosophy, rather than the completion of the *Metaphysics* that it appears to be.⁴⁸

⁴⁶ Contrast the view of Jaeger 1912, 122-123 that Λ contributes to constituting the science of first philosophy (which did not, at the time Λ was written, already exist) by investigating whether sensible and non-sensible substances have principles in common, with a view to showing that they do *not* have principles in common, and that non-sensible substances therefore fall under a further discipline distinct from physics. (This idea comes from a false interpretation of $\Lambda 1.1069a36-b2$, '[Sensible substances] belong to physics (for they are accompanied by motion), and [unmoved substance] to another science, if they have no common principle.' Jaeger took this to mean that first philosophy will exist only if there is no common principle of sensible and unmoved substances, but it is the conjunction, 'sensible substances belong to physics *and* unmoved substances belong to another science' that holds only if they have no common principle: because sensible substances have eternally unmoved substances as their ultimate efficient and final causes, we can treat sensible substances too in a first-philosophical way, namely, by tracing their causal connection to unmoved substances. $\Lambda 2-5$ do show that στοιχεῖα or *constituent* principles of sensible substances do not lead to eternal substances, but $\Lambda 6-10$ show that there is a connection through non-constituent principles, and sharply reject Speusippus' view of a plurality of causally independent domains with no one principle over all.)

⁴⁷ The allusion to B is flagged with καίτοι ἀπορία at $\Lambda 6.1071b22-23$. Ross, in keeping with his idée fixe of the independence of Λ , fails even to mention the extremely close B parallel in his commentary.

⁴⁸ Bonitz and Ross, to avoid this conclusion, have the audacity to take Aristotle's reference here at 1072a3-4 to a resolution of the aporia—to be referring back to the statement of the aporia at 1071b22-26! As Ross says truly enough, 'εἴρηται *simpliciter* can hardly refer to anything but a pre-

Λ was written, certainly, in a sketchy way, and perhaps in the hurried way that Burnyeat's μῦθος suggests. But once we have rid ourselves of the criteria-and-candidates reading of Z, and of the false expectation that Aristotelian theology will reveal to us a special primary meaning of being, we no longer have reason to believe that we are missing the culmination of the argument of the *Metaphysics*. In this sense Burnyeat's *Map of Metaphysics Zeta* can put us in a position to survey not only the argument of Z, but the argument of the *Metaphysics* as a whole.⁴⁹

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ceding passage of the same or a very closely connected book' (Ross 1924 i, xxvii n1). See my discussion in Menn 2009a. Note that the main conclusion of Θ, that ἐνέργεια is (in various important senses) prior to δύναμις, cannot be found in Λ1-5, the supposed parallel to ΖΗΘ, but only in Λ6-10.

⁴⁹ Some obligatory final complaints—very few. The printing is nice but the binding is shoddy, and the book began to disintegrate in my hands; it would be impossible to make photocopies without destroying the book. 138n20 says that Books A-E of the commentary on the *Metaphysics* attributed to Alexander are authentic; only A-Δ are. There are very few typos: Augustin Mansion's first name is given as 'Auguste', and (in a magnificent Americanism) Christian August Brandis' surname as 'Brandeis'; false accents οὐσίῳν 17n15, εἶδος 55n113; at 61 [ix] '1041b23-33' should probably be '1041b28-33'. It cannot be correct to say, as Burnyeat does 7n4 following Reiner 1955, that 'the bibliographic interpretation [of the title "*Metaphysics*"] is a myth that began in the 18th century'. It is a myth, and a pernicious one, but it is older than that. 'The Explication (that is, the settling of the meaning) of which and the like Terms [e.g. body, time, place, matter, form, essence, subject, substance], is commonly in the Schools called *Metaphysiques*; as being a part of the Philosophy of Aristotle, which hath that for title; but it is in another sense; for there it signifieth so much as *Books written, or placed after his natural Philosophy*: But the Schools take them for *Books of supernatural Philosophy*: for the word *Metaphysiques* will bear both these senses. And indeed that which is there written, is for the most part so far from the possibility of being understood, and so repugnant to natural Reason, that whosoever thinketh there is any thing to be understood by it, must needs think it supernatural' (Hobbes 1651, ch. 46, 'Of Darkness from Vain Philosophy, and Fabulous Traditions', 371).

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