

Aristotle's *Metaphysics* Z.17 and the Project of First Philosophy

[draft; comments welcome]

Aristotle's *Metaphysics* Z has suffered a curious fate. On the one hand, Z has been subject to a sprawling secondary literature that treats it as a virtually independent, and mature, treatise on substance and essence (this practice is sometimes called 'zetology').¹ On the other hand, those scholars who read Z in the context of the entire *Metaphysics* tend to conclude that Z is merely preliminary to Aristotle's central conclusions in that treatise.² Those two stances towards Z, while not straightaway incompatible, are in tension with one another. For if Z offers a mature account of substance and essence, one might expect it to feature prominently in Aristotle's positive response to the concerns of the *Metaphysics* as a whole. In this paper, I want to take some steps towards a reading that combines the best of the two exegetical worlds: In Z, Aristotle offers a positive account of substance and essence, and that account constitutes a core part of Aristotle's overall project in the *Metaphysics*.

This overall project is the project of 'wisdom' (see, e.g., *Meta.* A.2, 982a1-3) or 'first philosophy' (see, e.g., *Meta.* E.1, 1026a24), as Aristotle calls it, in contrast with natural science or 'second philosophy' (see, e.g., *Meta.* Z.11, 1037a14-16). The goal of first philosophy is to grasp the first principles and causes of 'being qua being' or of things insofar as they *are* (*Meta.* Γ.1, 1003a21-22) rather than, for example, of things insofar as they are

¹ On 'zetological' views, as I understand the term, the overarching goal set and reached in Z is to establish what primary substance is. Often, the conclusion is taken to be that form is primary substance (Z.11, 1037a29). For the zetologist, this enquiry can be understood more or less independently of the rest of the *Metaphysics* (perhaps except for the ensuing *Meta.* H), since the results of Z concerning primary substance are not substantially revised in the remainder of the treatise. For thorough book-length treatments which suggest a zetological picture, see, e.g., Loux (1991); Wedin (2000) (covering Z as well as the *Categories*); Lewis (2013); Dahl (2019).

² Burnyeat (2001: 3) claims that the conclusion of Z, which he takes to be 'that substantial being is form', is preliminary to later conclusions concerning substantial being in *Meta.* Θ and Λ. Gill (1989; 2006) argues that Z.1-16 do not succeed in identifying primary substance, and that the ultimate conclusion concerning primary substance is drawn in *Meta.* Θ where the composite substance turns out to be primary after all. Menn (unpublished) argues that Z gives a merely negative account of how one *cannot* reach the first principles and causes of being qua being, and that the first principle and cause is reached only in *Meta.* Λ (namely, the prime unmoved mover). Finally, scholars like Owens (1951/78), Patzig (1960), and Frede (1987; 2000) think that Z is a positive but preliminary step towards establishing the first principles and causes of being qua being, which can be achieved only with appeal to immaterial substances. I will return to this debate in section 6.

movable (as in natural science). Moreover, the most important step towards grasping the first principles and causes of being qua being is to grasp the first principles and causes of substance (*Meta.* B.1, 995b6-8; B.2, 996b13-14; Γ.2, 1003b17-19). I will argue that, in *Meta.* Z.17, Aristotle reaches a central, positive result of first philosophy: Essences are the first causes of being of perceptible substances. Moreover, the account of substance and essence which Aristotle develops in the course of Z is geared towards that conclusion.

My view diverges from classical zetology because it takes the central conclusion of Z.17, and Z more generally, to directly address the question as to the first principles and causes of being qua being. As a corollary, the claim that form is primary substance is *not* Aristotle's central conclusion but rather a subsidiary claim on which he relies in responding to the question concerning the first causes of being of perceptible substances. Furthermore, I will argue that the first causes of being of perceptible substances do not explain in all generality why a substance is a substance, as some scholars have argued.³ For on my view, one of the main contributions of Z.17 is to spell out a more nuanced account of explanatory claims concerning substance: Essence or form is the first principle or cause of some matter 'being', or constituting, a composite substance of a certain sort.

At the same time, I will disagree with those commentators who read Z as preliminary to Aristotle's discussion of immaterial substances. More precisely, I will argue that Z.17 offers a *complete* account of the first causes of being of perceptible substances. As I will argue, this is compatible with the supplementary discussion of immaterial substances in Λ – including the claim that the prime unmoved mover is the first efficient cause of the generation and perishing of perceptible substances. For Z.17 does not complete the entire first-philosophical project: It is concerned only with *perceptible* substances, and moreover, only with perceptible *substances* (not all categorial being).⁴ But in stating the account of the first cause of being of

³ See, e.g., Code (1997); Burnyeat (2001). I will discuss what I call the 'Code-Burnyeat view' in section 3.

⁴ Furthermore, Z.17 does not tell us what the per se attributes of being qua being are (see Shields 2012 for this strand of first philosophy). I will outline the limitations of Z.17 in section 7.

perceptible substances, Z.17 completes an important part of first philosophy, and it does so independently of any further claims about immaterial substances.

I will proceed as follows: In the first three sections, I offer an interpretation of *Meta. Z.17*. In particular, I argue that Aristotle adopts a ‘triadic’ model of explanation from the *Posterior Analytics* (section 1) which he applies to substance to explain in what sense essence is ‘the first cause of being’ (1041b28): Essence is the first cause of being of a (perceptible) substance because it is the cause of some matter constituting a substance of a certain sort (section 2). Moreover, I argue that the claim that essence is the first cause of being is the central conclusion of Z.17 (section 3). I then explain why the conclusion of Z.17 constitutes a positive response to the question ‘What is substance?’ and, by the same token, addresses the first-philosophical demand for the first principles and causes of being qua being (section 4). Moreover, I sketch how Z.17 fits into the larger context of *Meta. Z* and the ensuing *Meta. H* (section 5), and I will respond to the charge that my interpretation is incompatible with Aristotle’s characterization of first philosophy as ‘theology’ (section 6). I will close with a note on the achievement, and limits, of Z.17 (section 7).

Before I begin, it may be helpful to clarify some Aristotelian terminology. Aristotle speaks of ‘substance’ (οὐσία) in two chief senses (*Meta. Δ.8*, 1017b23-26). In the first sense, which is familiar from the *Categories* (see, e.g., *Cat. 5*, 2a11-14), a substance is an ultimate subject of predication. Despite the linguistic ring of ‘subject’ and ‘predicate’, for Aristotle, those expressions can have an ontological rather than linguistic meaning. In this ontological sense, a predicate is simply a feature of some entity, and a subject of predication is an entity that has certain features. Hence, a substance in the first sense is an entity that has features but is not itself a feature of anything else. More generally, all non-substances are predicated of, or features of, substances, but substances are not themselves predicated of anything else. Ordinary objects, such as Socrates or a coffee mug are substances in this first sense.

By contrast, in the second sense of ‘substance’, which plays a prominent role in *Meta. Z*, a substance is the substance *of* an entity, or equivalently, its essence. Occasionally, I will use subscripts for clarificatory purposes: ‘substance₁’ for a substance in the first sense, and ‘substance₂’ for a substance in the second sense. Thus, one can speak of the substance₂ of a substance₁. Moreover, a substance₁ is, roughly, the sort of thing it is because of its substance₂, that is, its essence. Finally, Aristotle analyses substances₁ as matter-form composites, and he identifies the substance₂ or essence of a substance₁ with its form. For example, the coffee mug is composed from clay (matter) and a mug shape (form), and the mug shape is its substance₂ or essence. And, in a more complex case, Socrates is composed from body (matter) and soul (form) where the soul is his substance₂ or essence.

With these distinctions in place, let us tackle *Meta. Z.17*.

1. The Structure of Explanation (*Meta. Z.17*, 1041a6-32)

The guiding question of *Meta. Z* is ‘What is substance?’ (Z.1, 1028b4; cf. Z.2, 1028b32). At the beginning of Z.3, Aristotle listed four sorts of entity that are said to be ‘substance’: essence, universal, genus, and the ultimate subject of predication that is not itself predicated of anything else, in the ontological sense of ‘predication’ given earlier (1028b33-37). On a common view, Aristotle discusses the ultimate subject of predication in Z.3, essence in Z.4-11 (or perhaps, Z.4-12),⁵ and the universal, including the genus,⁶ in Z.13-16.⁷ But in Z.17, Aristotle calls for ‘another start’ (1041a6-7) and returns to the question ‘What is substance?’

⁵ Z.12 is often treated as a later insertion (see, e.g., Jaeger 1912: 170-71; Frede & Patzig 1988 I: 25-26; Bostock 1994: 176-77; Burnyeat 2001: 42-44). Some scholars think that Z.7-9, too, were inserted later (Ross 1924 II *ad loc.*; Frede & Patzig 1988 I: 24-25; Burnyeat 2001: 29-38). I will stay neutral on this issue.

⁶ Z.13-16 do not explicitly mention genera, but genera are universals, and hence the conclusion concerning universals (that they are not substances) seems to apply to genera, too (H.1, 1042a21-22). Also, Aristotle’s examples, such as ‘the animal’ (e.g., Z.13, 1038b16-18), suggest that his discussion includes genera.

⁷ By contrast, Menn (2001) argues that Z.4-9 discuss substance as essence and Z.10-16 discuss partial substances. I will offer a rough outline of my preferred reading of Z in section 5.

on the basis of the thought that substance is ‘some principle and cause’ (1041a9-10). This is a step beyond Z.3 where substance as cause was not (explicitly) mentioned.

One may think of *Meta. Z.17* as falling into two halves:⁸ First, Aristotle applies his ‘causal-explanatory’ model from the *Posterior Analytics* to the case of substance (1041a6-b11), and second, he argues for a hylomorphic mereology (1042b11-33). But I will argue that Z.17 has a unified objective: to give an account of the first cause of being. Moreover, as I read Z.17, if the chapter is to be divided into two “parts” at all, the line is more suitably drawn at 1041a32 (cf. Burnyeat 2001: 59). For I hope to show in this section that the subsidiary goal of 1041a6-32 is to reintroduce what Lucas Angioni (2018) has called the ‘triadic’ model of explanation from the *Posterior Analytics*. Moreover, as I will argue in the next section, it is only in 1041a32-b33, including the “mereological” passage, that Aristotle applies the triadic model of explanation to substance and thus completes his account of the first cause of being.

In order to understand the model of explanation set out in 1041a6-32, it is helpful to recall Aristotle’s account of demonstration from the *Posterior Analytics*. Unlike a mere deduction or syllogism, a demonstration (ἀπόδειξις) is a ‘scientific deduction’ (συλλογισμόν ἐπιστημονικόν), that is, a deduction ‘in accordance with which, by having it, we have knowledge (ἐπιστάμεθα)’ (*APo* I.2, 71b17-19). In particular, a demonstration, unlike a mere deduction, provides the reason *why* (τὸ διότι) a conclusion holds and does not establish merely *that* (ὅτι) the conclusion holds (*APo* I.13). For example, we can deduce *that* planets are near the earth from the premises (i) that planets do not twinkle and (ii) that what does not twinkle is near the earth. But this deduction does not give us the reason *why* the conclusion holds. For planets do not twinkle because they are near the earth, not the other way around (*APo* I.13, 78a31-38). But if we deduce that planets do not twinkle from the premises (i) that

⁸ This is suggested by Jaeger’s dash at 1041b11 in the OCT. Cf. Koslicki 2014: 125; Sirkel 2018: 107-8.

planets are near the earth and (ii) that what is near the earth does not twinkle, this deduction is a demonstration that gives the reason why the conclusion holds (78a39-b4).

The crucial difference between these two deductions is the choice of the middle term. If S is the subject term, P the predicate term, and M the middle term, both deductions follow the schema (i) S is M, (ii) M is P, and hence (iii) S is P. That is, in both deductions, it is the middle term M which “links” the subject and predicate terms. In the case of the demonstration, but not in the case of the mere deduction, M also states the *cause* of the conclusion that S is P. For in the mere deduction, M is ‘not twinkling’, whereas in the deduction M is ‘near the earth’, and the fact that planets do not twinkle is explained by their being near the earth, not the other way around. Very roughly, then, a demonstration gives the reason why the conclusion holds because its middle term states the cause of the fact that the subject in question has the relevant feature.

In *Meta. Z.17*, Aristotle invokes that background picture from the *Posterior Analytics*.⁹ To begin with, in the first section (1041a6-27), he lays down the correct form for why-questions: ‘The reason why (τὸ διὰ τί) is always sought in this way: Why does one thing belong to another?’ (1041a10-11). When we want to ask why something is the case, we should ask why some predicate belongs to some subject, or equivalently, why the subject has that predicate. For example, the question ‘Why does it thunder?’ should be rendered as ‘Why does noise come about in the clouds?’ (1041a24-25). In so doing, we ask why noise belongs to the clouds, and we can proceed to seek the cause stated by the middle term of a demonstration which explains why noise belongs to the clouds.

Crucially, however, there is a further constraint on why-questions: The subject and predicate must not be the same. For ‘to seek why something is the thing it is (διὰ τί αὐτό ἐστίν

⁹ For a detailed discussion of that application, see, e.g., Charles 2000, 11.3; Wedin 2000, 10.3; Lewis 2013, 5.11; Ferejohn 2013, 6.3; Sirkel 2018: 103-10. The application need not go as far as yielding a proper demonstrative explanation of matter-form composites (see Wedin 2000: 415; Lewis 2013: 287). The only claim we will need here is that Aristotle relies on the *APo* to motivate the triadic structure of explanation in the case of substance.

αὐτό) is to seek nothing' (1041a14-15). For example, 'one does not seek why he who is human is human' (1041a22) but rather 'why the human being is such an animal' (1041a20-21).¹⁰ More generally, the predicate has to be predicated of the subject 'one of another' (ἄλλο κατ' ἄλλου), as in the case of the noise predicated of the clouds (1041a25-26). Let us call this the *allo kat' allou* constraint on why-questions.

How should we understand the *allo kat' allou* constraint? It would be too demanding to say that the predicate has to be (numerically) distinct from the subject.¹¹ For if one demonstrates that a species has some necessary attribute or proprium, the S and P terms will have the same extension. For example, one can demonstrate that humans have the capacity for literacy. But because all and only humans have the capacity for literacy, the S term (which refers to the human species) and the P term (which refers to the capacity for literacy) are extensionally the same. Hence, the species and its proprium are the same in number (*Top.* I.7, 103a27-29). It seems better, then, to interpret the *allo kat' allou* constraint in terms of sameness in essence: The subject and the predicate must not have the same essence. This constraint is violated when we ask why a human is human, but not when we ask why a human is an animal of a certain sort. For human and animal do not have the same essence.

After he has clarified the form of why-questions, Aristotle turns to the *answer* which such questions call for:

It is evident, then, that the cause is sought, and that is the essence, to speak in the logical mode (λογικῶς), which in some cases is that for the sake of which (τίνοσ ἔνεκα), e.g., presumably in the case of a house or bed, and in other cases what moved first (τί ἐκίνησε πρῶτον); for that, too, is a cause. But such a cause is sought in the case of coming to be and perishing, but the other one also in the case of being (ἐπὶ τοῦ εἶναι). (1041a26-32)

¹⁰ Menn (2001: 131) takes the question to be why such an animal is a human being. But the definite article in 'the human being' suggests that the question is why the human being is such an animal.

¹¹ Nonetheless, the fact to be explained (that the subject has a certain predicate) can be distinct from the explaining fact (e.g., that the subject has a certain essence). On this point, see Sirkel (2018).

The basic point here is already familiar: In responding to a why-question we seek the cause that explains why some predicate or feature belongs to a subject. But the details of this passage are fraught and require a number of exegetical decisions.

Pace Ps.-Alexander (540.38-541.1), I keep the reference to essence at 1041a28 which is well-attested by the manuscripts.¹² Thus, Aristotle identifies the cause sought in response to a why-question with the essence. Against the background of the *Posterior Analytics*, this is unsurprising. For in demonstrating that an entity has certain non-essential necessary attributes, one will choose a middle term that states the essence of that entity. For example, one can demonstrate that a triangle has 2R (that is, an angle sum that is equal to that of two right angles), where having 2R is a non-essential necessary attribute of triangles, because of the essence of triangles. Since Aristotle expresses this point ‘in the logical mode’ (λογικῶς), he does not put it in hylomorphic terms, that is, he speaks of essence here, not of form.¹³

Aristotle goes on to explain how essence operates as a cause: In some cases, essence operates as a final cause (‘that for the sake of which’), and in other cases, essence operates as an efficient cause (‘what moved first’). W. D. Ross (1924 II: 223) takes this move to be reductive: Essence can operate only either as a final cause or as an efficient cause. But it cannot, in addition, operate as a formal cause. For the way essence operates as a formal cause is spelled out in terms of final and efficient causality. But we will soon get an example where the causal role of essence can be understood in formal-causal terms but where no easy reduction to final or efficient causality seems available: The essence of a syllable is, roughly, the arrangement of its letters (see section 2 below). It is not clear in what sense that arrangement is a final or efficient cause, whereas we can easily understand it as purely formal cause or ‘structure’ organizing the letters. More generally, although sometimes, a single entity

¹² This is the reading in EJ and Ab. Ps.-Alexander’s reason for excising the reference to essence is that it pre-empts the conclusion to be drawn later (namely, that essence or form is the cause sought). However, on my reading, the reference to essence is crucial in setting up the triadic model from *APo*.

¹³ See Burnyeat (2001: 6-8) for a seminal discussion of ‘λογικῶς’. We need not assume that ‘logical’ means ‘without recourse to matter and form’ but merely that the logical mode implies that matter and form are set aside.

may play the role of formal, final, and efficient cause, it does not seem that the formal cause can be generally reduced to the efficient or final cause (Rosen 2014). Hence, a non-reductive reading is more promising (Frede & Patzig 1988 II: 313): Essence may operate as a formal, final, or efficient cause, and those three causal roles can in principle come apart.

Aristotle further claims that the final cause is sought ‘also in cases of being’ (1041a32), whereas the efficient cause is sought only ‘in cases of coming to be and perishing’ (1041a31-32). This claim may strike one as problematic. First, we may wonder why Aristotle mentions the efficient cause at all. For ostensibly, Z.17 is not concerned with coming to be and perishing (Bostock 1994: 236). Moreover, as Frede and Patzig point out, elsewhere Aristotle does not seem to exclude appeal to efficient causes ‘in cases of being’.¹⁴ Finally, formal causes, too, are causes of being. The soul, for example, is characterized as the formal cause of the living body because it is the cause of its being or living (*DA* II.4, 415b13-14). It is not obvious, then, why Aristotle should single out final causes as causes of being.

Luckily, for our purposes, we do not have to settle the overall question whether efficient causes can be causes of being. For we will not have to rely specifically on the efficient-causal role of essence in reconstruction Aristotle’s account of the cause of being in Z.17. By contrast, it will soon become important that formal causes can be causes of being. But this assumption is compatible with Aristotle’s claim that the final cause is sought ‘also in cases of being’ (1041a32). For the contrast here is with the efficient cause which is not sought in such cases. But this leaves open that the formal cause can be sought.

The more general upshot of this part of Aristotle’s discussion is that explanation involves a third entity in addition to subject and predicate, namely, the cause – which he identifies with the essence. Overall, in 1041a6-32, Aristotle has introduced what, following Angioni (2018),

¹⁴ Frede & Patzig 1988 II: 313. See also Bonitz 1848-49: 359. – In *Phys.* II.3 and *Meta.* Δ.2, Aristotle says that ‘for instance, the man who has deliberated is a cause, and the father of the child, and generally the maker of what is made and the changer of what changes’ (194b30-32 = 1013a30-32), which leaves open whether the efficient cause is a cause only of the relevant change or also of the being of what changes.

we can call a ‘triadic’ model of explanation that involves a subject, predicate, and cause or essence. We saw that, in this part of Z.17, Aristotle’s discussion is heavily indebted to the *Posterior Analytics*. But one of Aristotle’s examples, which I have not addressed so far, goes beyond the *Posterior Analytics*. For after the familiar sample question ‘Why does it thunder?’ (1041a24-25), Aristotle offers another one: ‘Why are these things here, such as bricks and stones, a house?’ (1041a26-27). In the remainder of Z.17, Aristotle will take up questions of this type and develop an account of the first cause of being.

2. Matter and the First Cause of Being (*Meta. Z.17, 1041a32-b33*)

In this section, I will argue that, in the second part of Z.17 (that is, on my reading, 1041a32-b33), Aristotle applies the triadic model of explanation to substance. This application requires hylomorphic resources: The substance or essence of a (composite) substance is the cause of some matter ‘being’, or constituting, a substance of that sort. Later, I will argue that we should understand Aristotle’s account of the first cause of being in terms of that application of the triadic model: The substance or essence is the first cause of being of a (composite) substance precisely because it is the cause of matter ‘being’ a substance of that sort. Moreover, this claim about the first cause of being is the central conclusion of Z.17 and an important part of Aristotle’s response to the queries of first philosophy. But before we get there, let us look at Aristotle’s argument.

The second part of Z.17 (1041a32-b33) can be suitably subdivided into three passages: First, Aristotle states the application of the triadic model of explanation to substance in general hylomorphic terms (1041a32-b11). Second, he fleshes out that general account in mereological terms (1041b11-27). Third, in the final passage, he concludes that substance is

the first cause of being (1041b27-33). Here, I will discuss the first two passages, and in the next section, I will turn to the final passage.

After Aristotle has concluded his statement of the triadic model of explanation in the first part of Z.17 (1041a6-32), he says (following EJ):

What is sought is hidden most of all in cases where things are not said of others (ἐν τοῖς μὴ κατ' ἄλλων λεγομένοις), e.g., when it is sought what (a) human being is, because it is said simply but not spelled out as 'these are this' (τάδε τόδε). But we have to seek [what is sought] after having corrected (διορθώσαντας) [the expression]. Otherwise, there turns out to be no difference (κοινὸν γίγνεται) between seeking nothing and what (τι) [something is]. And since one must have got hold of (ἔχειν) [a thing] and it must be granted that it is (ὑπάρχειν τὸ εἶναι), it is therefore clear that one seeks concerning the matter why it is [something], e.g., why are these things here a house? Because what it is to be a house belongs [to them]. And why is this one here (ὁδί), or this body being in this state here (τοδὶ ἔχον), a human being? So that the cause of the matter is sought, and that is the form by which it is something; and that is the substance. (1041a32-b9)

At the beginning, Aristotle recalls the *allo kat' allou* constraint: What is sought is hidden most all in cases where things are not said 'of others' (κατ' ἄλλων) or perhaps 'of each other' (κατ' ἀλλήλων).¹⁵ In such cases, we first have to correct (διορθώσαντας) our why-question in conformity with the *allo kat' allou* constraint.¹⁶ We saw that one should not ask 'Why does it thunder?' but 'Why does noise come about in the clouds?'. Similarly, given the question 'What is a human being?', one should distinguish (διορίζειν) that 'these are this' (τάδε τόδε) (1041b2), that is, one should distinguish the components involved in the question. One can then ask a question of the correct form 'Why are these things this?'.¹⁶

We were given a question of that form earlier: 'Why are these things here, such as bricks and stones, a house?' (1041a26-27). Instead of asking why a house is a house, we should ask why bricks and stones 'are' a house. Thus, the *allo kat' allou* constraint has been heeded. For

¹⁵ EJ have 'κατ' ἄλλων', but E also offers the alternative reading 'κατ' ἀλλήλων'. See Frede & Patzig (1988 II: 314-15) for a discussion.

¹⁶ I retain 'διορθώσαντας' from EJ, which makes good sense to me. But adopting the alternative 'διαρθρώσαντας' ('dismembering' or 'analysing') from Ab would not greatly affect my interpretation.

we are asking why house belongs to bricks and stones. More generally, in asking why-questions concerning substance, we should ask why *matter* is, that is, why matter ‘is’ an entity of some sort (1041b5).¹⁷ Aristotle applies this general point to the case of the human being: We should ask not ‘What is a human being?’ or ‘Why is he who is human human?’ (1041a22) but rather why ‘this one here’ or ‘this body in this state here’ is human – where the body in some state is the matter of the human being.¹⁸

According to Aristotle, once why-questions concerning substance have been set up in this way, it becomes clear that (ὅσπερ, 1041b7) ‘the cause of matter is sought, and this is the form by which it is something; and this is the substance’ (1041b7-8). Jaeger follows Christ in excising the clause ‘and this is the form’ as a redundant variation of ‘and this is the substance’. But it makes good sense for Aristotle to remind us here of the fact that the substance in question is the form. For he has already relied on hylomorphic resources to make why-questions concerning substance conform with the *allo kat’ allou* constraint: Since substances, in the first sense of ‘substance’, are matter-form composites, we can ask why the relevant matter ‘is’ a substance of that sort. Now Aristotle brings in the third entity to complete the triadic structure of explanation, namely, the substance₂ or essence *of* composite substances₁ or, in the hylomorphic terms already adopted, their form. The substance₂, essence, or form of the composite is the cause of matter ‘being’ a substance of a certain sort.

According to Michail Peramatzis (2011: 184-85), the explanandum here is that matter is *essentially* a certain sort of substance. On this view, the essence of the composite fixes the

¹⁷ Christ (and Jaeger) add a ‘τί’ at 1041b5 to emphasize that the question is why matter is something. But even without the ‘τί’, it seems sufficiently clear that this is the question Aristotle has in mind.

¹⁸ With Ross (in his translation of the *Metaphysics* in Barnes (1984)), and contra Frede & Patzig (1988 I: 121), I take it that there are not two questions (‘Why is this one here a human?’ and ‘Why is this body something that is in this state?’) but rather one question, where ‘this body in this state’ explicates ‘this one here’ (ὅδι): ‘Why is this one here, i.e. this body in this state, a human?’. There are two further textual complications at 1041b7: Whether we should read ‘ὅδι’ or ‘τοδί’ and whether we should read ‘τοδί ἔχον’ or ‘ὅδι ἔχον’. I followed the EJ text (‘ὅδι’ and ‘τοδί ἔχον’): ‘ὅδι’ refers to the human about whom we are asking whether he is human (on the initial formulation of the question which is then correctly explicated in terms of the body). Moreover, if we read ‘τοδί ἔχον’ along the lines of ‘the body having an illness’ in *Meta.* Δ.23, 1023a11-13, it seems that it can mean the same as ‘ὅδι ἔχον’: ‘be in this state here’.

essence of the matter because what it is to be that (type of) matter is to be matter for a certain (composite) substance. For example, the essence of house fixes the essence of the bricks and stones as matter *for a house*. As Frede and Patzig (1988 II: 317-18) note, one may be led to this reading if one keeps the clause ‘and this is the form’. For one might think that ‘the form by which [the matter] is something’ (1041b8) refers to the form of the matter.¹⁹

However, on this reading, the *allo kat’ allou* constraint on why-questions is flouted. For we are asking why the matter for a house is matter for a house. But this question has the form which Aristotle warned us against. For the question has the same form as the discredited question ‘Why is he who is human human?’. What is more, even if we keep the clause ‘and this is the form’, we need not take the form at issue to be the form of the matter. For Aristotle simply speaks of the form by which matter is ‘something’ (τῖ), and there is no need to suppose that this ‘something’ is the essence of the matter.

More plausibly, the explanandum is why matter has an attribute that is *not* essential to the matter (see, e.g., Frede & Patzig 317-18; Sirkel 2018: 107-10). I suggest that this attribute is understood in terms of the species of the composite which the relevant matter composes. For example, what the essence or form of the house explains is why bricks and stones compose a substance that is a member of the species house. This yields an unmysterious way of distinguishing between the “being” of a composite and its essence,²⁰ and thus of maintaining the triadic model of explanation: The essence of the composite (cause) explains why some matter (subject) ‘is’ a composite of a certain species or sort (predicate).

Crucially, if the explanandum is that matter has a non-essential attribute, Aristotle has to provide an appropriate account of the ‘is’ in claims such as ‘the cause of the matter is sought, and that is the form by which it “is” something (τὶ ἐστίν)’ (1041b7-8). For we saw that the ‘is’ in such claims can be heard as introducing an essential link between matter and its essence

¹⁹ Frede & Patzig reject this reading and excise the clause.

²⁰ Contra Code (1997: 358) who claims that the ‘being of X’ just is the substance of X.

(‘matter is essentially a certain sort of matter’). But this construal, as I just argued, would infringe the triadic structure of explanation. As I see it, then, the goal of the ensuing mereological passage (1041b11-27) is to forestall confusion by clarifying that the relevant ‘is’ is one of constitution: The essence of the composite explains why some matter *constitutes* a substance of a certain sort.

The mereological passage reads as follows:²¹

Since what is composed from something in such a way that the total is one, but not as a heap, but as the syllable – and the syllable is not the letters, nor are B and A the same [as the syllable],²² nor is the flesh fire and earth (for when they are dissolved, some entities are no longer, such as the flesh and the syllable, but the letters are, as are the fire and the earth) –, therefore, the syllable is something, not only the letters, i.e., the vowel and the consonant, but also something else, and the flesh is not only fire and earth or the warm and cold but also something else. Suppose, then, that it is necessary that the latter is an element or from elements: If it is an element, the same argument will arise (for the flesh will be from this and fire and earth and whatever else so that it will go to infinity). But if it is from an element, it is clear that it is not from one but from several [elements], or else it will be that [one element], - so that we will again give the same argument in the case of this as in the case of the flesh or syllable. But this would seem to be something and not an element (στοιχεῖον), and indeed the cause (αἴτιον) of this here being flesh, and this here being a syllable; and similarly also in the other cases. (1041b11-27)

Aristotle argues first that a unified composite entity, such as a syllable or flesh, is not identical with its elements, such as the letters of the syllable or the physical elements that make up flesh.²³ For when the composite entity is dissolved, it is destroyed whereas the elements that make it up still exist. Hence, there must be ‘something else’ to the composite, in addition to the elements. By means of a *reductio*, Aristotle shows that this ‘something else’

²¹ Two sentences in this passage seem to miss an apodosis (Frede & Patzig 1988 II: 319): The one beginning with ‘since’ (ἐπεὶ) at 1041b11, and the one beginning with ‘if’ (εἰ) at 1041b19. Since I have indeed not been able to identify an apodosis for the second sentence, I translated the ‘if’ as ‘suppose...’ initiating a *reductio*. As for the first sentence, I suggest that there is an apodosis which begins at 1041b16 and is indicated by the ‘ἄρα’: Since a composite is a unity, the composite (e.g., the syllable) is something and not just its letters or elements. There is still an awkward shift of subject (the syllable which is introduced as an example for a composite in the protasis is the subject in the apodosis), but otherwise, the construction seems to make sense.

²² Following EJ, I drop ‘τῶ βα’ and take ‘the (whole) syllable’ to be merely implied.

²³ Aristotle begins by speaking of ‘στοιχεῖα’ as the letters of the syllable but later uses the word in a more general sense as referring to the ‘elements’ from which composite can be composed (104b19ff.).

cannot be a further element, nor composed from further elements: Since the composite is not identical with its elements, if the ‘something else’ is just another element, there has to be another ‘something else’, and so on ad infinitum. But if the ‘something else’ is composed from elements, it has to be composed from several elements. For if it were composed from a single element, it would be identical with that element, and hence we would return to the first option. But if the ‘something else’ is composed from several elements, it will be just another composite like flesh or the syllable, and hence no progress has been made. Aristotle concludes that the ‘something else’ is not another element but rather a cause or principle, which he goes on to identify with the substance or nature of the composite, as contrasted with the elements which are its matter (1041b27-33, to be discussed below).

What is the larger purpose of this argument? One might think that Aristotle’s main concern is the *unity* of composites: The substance of a composite unifies its material elements and thus the composite itself (Witt 1989: 112-21; Wedin 2000: 430-31). On this reading, one can emphasize that, at the beginning of the passage, Aristotle says that the composite at issue is not like a heap but rather a unity (1041b11-12). Later in *Meta. H*, Aristotle will pick up on that issue and ask for the cause of unity of definition and substance (H.3, 1044a2-9; H.6, 1045a7-14). Moreover, already earlier in *Meta. Z*, Aristotle showed interest in the unity of substance (Z.12, 1037b10-12; Z.13, 1039a2-14). It may be tempting, then, to read Z.17 in the context of Aristotle’s discussion of unity.

However, the use to which Aristotle puts the distinction between elements and cause is not related to the unity of the composite. He concludes: ‘But this would seem to be something and not an element (στοιχεῖον), and indeed the cause (αἴτιον) of this here being flesh, and this here being a syllable’ (1041b25-27). The cause invoked here is not a cause of unity but a cause of *being*, namely, of something being an entity of a certain sort (e.g., flesh or a syllable). Indeed, Aristotle has not explicitly raised the issue of the cause of unity anywhere in Z.17. Of course, this does not mean that there is no connection between Z.17 and the problem of the unity of

substance. For, elsewhere, it turns out that the essence or form is not just the cause of being but also the cause of unity of composite substances. But this is not the agenda of Z.17.

To my mind, the crucial question is not what Aristotle's general philosophical motivation is for distinguishing between elements and cause. There may be a variety of motivations in different contexts. Rather, we should ask why he should bring up an argument for that distinction *at this point in Z.17*.²⁴ If we read the mereological passage as part of Aristotle's application of the triadic model of explanation to substance, as I suggested, then a natural response emerges: The passage explicates that application in mereological terms. Moreover, this explication crucially advances Aristotle's account. For it gives us a better grasp of the explanandum, that is, of the fact that matter 'is' a substance of a certain sort – and thus ultimately of Aristotle's account of the cause of being (rather than unity).

When Aristotle concludes that the 'something else' is not an element but 'the cause (αἴτιον) of this here (τοδί) being flesh, and this here (τοδί) being a syllable' (1041b26-27), he uses the same sort of deictic expressions ('τοδί' or 'this here') which he used in his first mention of the house: 'Why are these things here (ταδί), e.g., bricks and stones, a house?' (1041a26-27; cf. 1041b5-7). In that earlier passage, 'these things here' or simply 'these here' (ταδί) referred to matter, such as bricks and stones. I propose that we read the end of the mereological section in the same way: 'This here' (τοδί) refers to the matter (e.g., fire and earth, or the letters), and the substance or essence of the composite is the cause which explains why that matter 'is' a certain sort of entity (e.g., flesh, or a syllable). Hence, the mereological passage, no less than the section that preceded it (1041a32-b11), is still concerned with the application of the triadic model of explanation to substance.

But the mereological passage does not simply rehash what we already knew. Rather, by spelling out the application of the triadic model of explanation in mereological terms,

²⁴ Koslicki (2014: 124-25) argues that the distinction between an entity and its matter is itself the goal of the mereological section. However, if we read the section in context, this is not its ultimate conclusion.

Aristotle further clarifies what the explanandum is. As we saw, the claim matter ‘is’ a substance of a certain sort lends itself to a misleading reading on which we seek to explain why matter is essentially what it is. The mereological explication of the model forestalls that mistake: The ‘is’ in question is a constitutive ‘is’. That is, we try to explain why matter constitutes a (composite) substance of a certain sort, and the explanans is the essence or form of the composite substance.

Overall, then, I have argued that, in Z.17, Aristotle lays down a triadic model of explanation and then applies it to substance: Essence or form explains why some matter constitutes a substance of a certain species or sort. But this is not quite the end of Z.17 yet. For Aristotle goes on to conclude that substance is the first cause of being (1041b28). How exactly should we understand that claim? And what does it tell us about the overall conclusion of Z.17?

3. The Conclusion of *Meta. Z.17*

At the end of Z.17, Aristotle writes:

And this is the substance (οὐσία) of each thing (for this is the first cause of being (αἴτιον πρῶτον τοῦ εἶναι) – and since some things are not substances, but those that are substances join in accordance with nature and by nature, this nature would seem to be substance which is not an element but a principle (ἀρχή) (an element is that into which [something] is divided and which is present as matter, such as the A and the B of the syllable). (1041b27-33)

The first ‘this’ refers to ‘the cause (αἴτιον) of this here being flesh, and this here being a syllable’ (1041b26-27). Aristotle identifies that cause, which he calls the ‘first cause of being’, as the substance of each thing, which, in the case of a natural substance, is its nature. Generally, the substance of a (composite) substance is a principle, as opposed to the material elements into which it is divisible. This conclusion is not surprising. For Aristotle has already

identified the cause we seek as the essence (1041a27-28) and as the form or substance, in the second sense of ‘substance’ (1041b7-9). Still, we should ask what exactly the content of Aristotle’s causal claims is, and which overall conclusion they are meant to support.

In the mereological passage, Aristotle argued for a distinction between (material) elements, such as the letters of a syllable, and the cause or principle of the fact that those elements constitute a composite entity of a certain kind. That cause or principle is the substance₂, essence, or form of the composite entity. But how should we think of that principle? On a natural thought, it is an *arrangement* or structure (Bostock 1994: 245): The syllable BA is not just the letters A and B but rather those letters arranged in a certain way. This arrangement explains why A and B compose the syllable BA, not AB.

In support, one may draw on *Meta. H.2* where Aristotle adopts and expands on Democritus’ notion of a ‘differentia’ (1042b11-15). According to Aristotle, there is a range of differentiae or modes of arrangement of materials by which (composite) entities differ. For example, the same stone in different places can compose either a threshold or a lintel, and hence a threshold and a lintel differ ‘by position’ (θέσει) (1042b19). Thus, ‘if one had to define a threshold, we will say that it is wood or stone lying in this way, and that a house is bricks and pieces of wood lying in this way’ (1043a7-9). Composites, then, consist of matter arranged in a certain way. This arrangement is their essence and thus their cause of being (1043a2-3).

However, this is a simplification. The arrangement of the material elements of a composite is presumably a purely formal cause. But following on the examples from H.2 quoted above, Aristotle adds ‘or moreover, the for the sake of which, too, is present in some cases’ (1043a9). This suggests that, even in H.2, we should not *always* think of essence in purely formal-causal terms (cf. Charles 1994: 81-87). In a simple case such as the syllable, it may be true that its essence is a purely formal cause, such as an arrangement. Hence, it seems important that the formal cause *can* be a cause of being, as I said earlier. But in other cases, the essence cannot be *merely* a formal cause.

This point is especially pertinent in the case of natural substances. In *DA* II.4, Aristotle makes clear that the soul of a living thing plays three causal roles: The soul is the formal cause of the living body because it is the principle and cause of its living, which is its being (415b12-14). The soul is the final cause of the living body because the body is an instrument of the soul, and hence for the sake of the soul (415b15-21). The soul is the efficient cause of the living body because it is its principle of motion, namely, locomotion, alteration (in particular, perception), and growth (415b21-27). The essence or nature of a natural substance is its formal, final, and efficient cause.

It seems better, then, to think of essence or form as a structural *principle* in virtue of which material elements compose an entity of a certain kind rather than simply a structure or arrangement imposed on those elements. For example, the soul of an organism is not the *arrangement* of the bodily parts, but it is the principle in virtue of which the bodily parts are organized in the way they are. For instance, ‘the hand is not a part of the human being in just any state, but only the hand which is capable of fulfilling its function, inasmuch as it is ensouled; but if it is not ensouled, it is not a part’ (*Meta.* Z.11, 1036b30-32; cf. Z.10, 1035b23-25). A detailed account of the causal profile of form would require much more work. But for now, it suffices to note the limits of the toy case of the syllable: In the crucial case of natural things, the essence is not just an arrangement.

With these remarks on essence as cause in place, we can ask further in what sense essence is a cause *of being* in Z.17, especially what the explanandum of essence as a cause of being is. According to Alan Code (1997) and Myles Burnyeat (2001: 59-61) essence is a cause of being because it explains *why a substance is a substance* (that is, in terms of the double use of ‘substance’, the substance₂ *of* a substance₁ explains why the latter is a substance). The explanandum here is formulated in, as Code (1997: 360) calls it, ‘general essentialist’ terms that do not rely on hylomorphic resources, or on a ‘logical level of discourse’, as Burnyeat (2001: 6) puts it. Moreover, we are not asking why something is a substance of a specific kind

but rather why it is a substance *tout court* (Code 1997: 357). However, our reading of Z.17 should make us doubtful of this interpretation.

First of all, ‘Why is a substance a substance?’ is a generalized version of the question ‘Why is he who is human human?’. But this is not the correct form of why-questions. Rather, we should ask ‘Why does this matter constitute this substance?’. Hence, we cannot correctly ask a why-question concerning substance without appealing to hylomorphic resources. Moreover, I have argued that the explanandum is why matter constitutes an entity of a specific kind (e.g., a house), not why it constitutes a substance *tout court*. Aristotle’s claim at the end of Z.17 that substance is ‘the first cause of being’ should be understood in the same vein. For in the immediate vicinity of that claim Aristotle spells out in more detail how substance is a cause of being. It is, for instance, ‘the cause (αἴτιον) of this here being flesh, and this here being a syllable’ (1041b26-27). More generally, as he puts it in *Meta. H.2*, ‘substance is the cause of being each thing’ (1043a2-3). Thus, essence explains why matter constitutes a substance of a certain kind, not in all generality why a substance is a substance.

These remarks bear on what we take the central conclusion of Z.17 to be. According to the Code-Burnyeat view, Z.17 sets a general-essentialist or logical constraint on primary substance, namely that it is a principle or cause (Code 1997: 359; Burnyeat 2001: 57). This constraint is meant to be formulated in non-hylomorphic terms. For Aristotle draws on hylomorphism only to source his candidates for entities that could be primary substance – where it turns out that only form, not matter or the composite, meets the causal constraint on primary substance. Hence, on the Code-Burnyeat view, the ultimate conclusion of Z.17 is that form is primary substance, even if this conclusion is not explicitly stated in Z.17.²⁵

But I have argued that, given the triadic model of explanation, the supposed causal constraint on primary substance cannot be spelled out without recourse to hylomorphism. For

²⁵ According to Code (1997: 371), ‘the metaphysical theory’, i.e., the hylomorphic theory of substance, is ‘filled in’ in *Meta. H*. Burnyeat (2001: 60) claims that ‘that substantial being is form is obviously implied’ in Z.17.

in isolation from hylomorphism, one cannot correctly formulate what it is for substance to be a cause of being. This is because, in line with the triadic model, the claim that substance is a cause of being says that substance is the principle or cause of *matter* constituting a substance of a certain sort. If this is right, there cannot be, in Z.17, any ‘general-essentialist’ causal constraint on primary substance formulated in non-hylomorphic terms.

By the same token, the view that matter, form, and the composite are tested against a causal constraint on primary substance, where form emerges triumphant, is hardly plausible. For it is part and parcel of the supposed “constraint” that the cause, and hence the substance, in question is form. Indeed, Aristotle says as much in passing at 1041b8, and even if one excises that reference to form (contrary to the manuscripts), it is implied by the contrast of substance with matter and the earlier claim that the cause sought is the essence (1041a28). We should not be surprised, then, that Aristotle does not explicitly mention form at the end of Z.17. This is not because it is not true that substance (that is, substance₂) is form but because it has already been assumed in the application of the triadic model of explanation to substance.

What, then, is the central conclusion of Z.17, if not that form is primary substance? Stephen Menn (2001: 131) has argued that Z.17 is intended to show that ‘the οὐσία [i.e., substance] of a thing is a kind of cause and (broadly) ἀρχή [i.e., principle] which is not a στοιχεῖον nor out-of-στοιχεῖα’. But this description seems too general. For Aristotle does not just show that the substance of an entity is a cause and principle. Rather, he shows that the substance₂ or essence of a composite₁ is its first cause *of being*, and moreover, in a specific way, namely, as the cause of some matter ‘being’ (or constituting) a substance of a certain sort. This is a more substantive claim than that substance₂ is a cause and principle *tout court*.

My proposal, then, is that the central conclusion of Z.17 is what the Code-Burnyeat view casts as a constraint on primary substance. That is, substance or essence is the ‘first cause of being’, as spelled out in conformity with the triadic model of explanation: The substance or essence of a (composite) substance is the cause of some matter constituting a (composite)

substance of a certain kind. This is not a constraint on primary substance which yields an ulterior conclusion but rather *itself* the central conclusion of Z.17.

There is an obvious objection to my proposal: At the beginning of Z.17, Aristotle recalls the guiding question of *Meta. Z* ‘What is substance?’. Hence, one might expect the account of substance as cause in Z.17 to tell us what (primary) substance is. But I will argue next that this objection is based on a misunderstanding of the question ‘What is substance?’. For that question should be understood not as asking for a successful candidate for primary substance but rather against the background of the enquiry of first philosophy into the first principles and causes of being qua being. On my view, Z.17 responds to a core part of that enquiry: Essences are the first principles and causes of being of perceptible substances.

4. ‘What is Substance?’

At the beginning of *Meta. Z.17*, Aristotle sets the agenda for the chapter:

Let us say again, as if making a fresh start, what we have to say substance is and of what sort. For presumably, from those [considerations], we will get clear also about that substance which is separated from the perceptible substances. Since then, substance is some principle and cause, we should approach [the issue] from there. (1041a6-10)

The main question embedded in the initial exhortation is ‘What (τί) is substance?’,²⁶ which recalls the guiding question of Z as a whole: ‘What is substance?’ (τίς ἡ οὐσία) (Z.1,1028b4; cf. Z.2, 1028b32). But there is more than one way of reading that question.

²⁶ The second question ‘Of what sort (ὅποῖόν τι) is substance?’ does not seem to be explicitly addressed in Z.17. On the reading to be proposed here, this may be explained by the fact that the answer to the question ‘What is substance?’ implies an answer to the second question as well. For once the first question has been spelled out in conformity with the triadic structure of explanation, one will respond that the essence is the first cause of some matter constituting a composite *of a certain sort*. Hence, the essence also explains of what sort the substance is.

To begin with, it is worth noting that, in the introductory paragraph of Z.17, substance is used in both of Aristotle's chief senses of 'substance'. There is, of course, the claim that substance is a principle and cause, where the second sense of 'substance' is in play: The substance₂ or essence of an entity is, in some sense, its principle and cause. But Aristotle also mentions 'the perceptible substances' as well as the immaterial substance that is separated from them. These perceptible substances, like the natural substances at the end of Z.17, are substances in the first sense, namely, composite substances, such as Socrates. For Aristotle customarily contrasts immaterial substances with ordinary sublunary substances. Indeed, just previously, at the end of Z.16, Aristotle spoke 'eternal substances besides the [substances] we know' (1041a1-2) where the intended contrast is not between different sorts of substances₂ or essences of entities but different sorts of substances₁: entities that *have* substances₂.²⁷

If there are two senses of 'substance' in play at the beginning of Z.17, we can understand the question 'What is substance?' in two ways. On the first option, which I wish to oppose, Aristotle is looking for a successful candidate for (primary) substance, and that candidate must be the cause of something else and hence its substance₂. The eventual answer to the question is 'Form is substance', and the grounds on which that answer is given is that form is substance₂.²⁸ Alternatively, Aristotle raises a 'what is it?' question about (perceptible) substances₁: 'What is (a) substance₁?' This, as I will argue, is an enquiry into the cause of substance₁. The answer will again involve essence or form but in a different way: 'Substance₂ or essence or form is the cause of substance₁'.

We saw in passing that, later in Z.17, one of Aristotle's examples for a why-question concerning substance is 'What is (τί ἐστὶ) (a) human being?' (1041b1) – or so our manuscripts say. But some scholars prefer a textual variant noted in manuscript E which has 'διὰ τί

²⁷ This fits with the concern of Z.16 to establish which supposed substances₁ are in fact not substances₁ (e.g., parts of animals are not substances₁, 1040b5-10).

²⁸ On a version of this view, form is both substance₁ and substance₂. For Z has the structure of a 'pincer-movement' (Owen 1978/79) which seeks a single entity that is substance in both senses – and hence substance *tout court*. Still, the grounds for the conclusion that form is substance *in Z.17* must be that it is substance₂.

instead of ‘τί’, that is, ‘why?’ instead of ‘what?’. Hence, they take the question to be ‘Why is (a) human being?’ rather than ‘What is a human being?’ (see, e.g., Ross 1924 II: *ad loc.*; Sirkel 2018: 104, fn. 29). As Frede and Patzig (1988 II: 315) note, this is an unnecessary manoeuvre. For the ‘What is it?’ question here amounts to a ‘Why is it?’ question: In asking what (a) human being is, we are seeking the cause or essence which explains *why* the human being is what it is (cf. *APo* II.2, 90a14-15). Thus, we can understand the question ‘What is (a) substance?’ at the beginning of Z.17 as a generalized version of the question ‘What is (a) human being?’, and hence as a why-question: ‘Why is (a) substance a substance?’.

As I argued above, in Z.17, this question will be spelled out in conformity with the triadic model of explanation: ‘Why is some matter a composite substance of a certain sort?’ This is a question *about* substance₁, but the response will involve substance₂ or essence: The substance₂ or essence of a (composite) substance₁ is the cause of some matter constituting a (composite) substance₁ of a certain sort. Thus, the central conclusion of Z.17 is a response to the question ‘What is substance?’ from the beginning of Z.17, once that question has been suitably understood as a why-question that enquires into the causes of substance₁.

There are independent grounds for taking the question ‘What is substance?’ at the outset of *Meta. Z* in the same way. In Z.1, the question is introduced as follows:

And indeed, what has been sought of old and now and always and what has always been puzzled about, ‘What is being?’ (τί τὸ ὄν) that amounts to (τοῦτό ἐστι) ‘What is substance?’ (τίς ἢ οὐσία) (for some say that that is one, and others that it is more than one, and some that it is finite in number, others that it is infinite), which is why we, too, have to investigate most of all and primarily and, so to speak, only about what is in this way what it is (περὶ τοῦ οὕτως ὄντος θεωρητέον τί ἐστίν). (1028b2-7)

For reasons to be discussed shortly, Aristotle claims that the old question ‘What is being?’ amounts to the question ‘What is substance?’. Moreover, he spells out how we should take the question ‘What is substance?’, namely, as a ‘What is it?’ question about ‘what is in this way’, that is, about substance. Again, there are two ways of understanding the question: On one

view, it is a question that asks for the successful candidate for primary substance, that is, Aristotle aims to find out which sort of thing is (primary) substance. Alternatively, Aristotle could be asking what substance₁ is, and hence for the causes of substance₁.

Some evidence for the second reading may be contained in the passage itself. For after Aristotle has formulated the question ‘What is substance?’, he says that some take substance to be one, others many, and among the latter, some take it to be finite in number, others infinite. These choice points seem to concern *substance*₁, as set out in the ensuing *Meta. Z.2*: Whether (only) ‘bodies’, and hence animals, plants and the physical elements are substances (1028b8-11), or whether their boundaries are (1028b16-18), and whether there are eternal entities besides the perceptible ones (1028b18-19), and if so, how many and in what order of fundamentality (1028b18-27).²⁹ But if the choice points about substance, as featured in the question ‘What is substance?’ in *Z.1*, concern substance₁, then the question itself should also be about substance₁, just as the second reading has it: ‘What is substance₁?’³⁰

The more systematic case for reading the ‘What is substance?’ question in *Z.1* as part of an enquiry into the causes of substance₁ proceeds from a parallel with *Meta. Γ.1-2*. In *Meta. Γ.1*, Aristotle characterizes the science he is pursuing, which he calls ‘first philosophy’ elsewhere (e.g., at *Meta. E.1*, 1026a24),³¹ as a science ‘which investigates what is insofar as it is [τὸ ὄν ἢ ὄν, often translated as ‘being qua being’] and the things that belong to it by itself’ (1003a21-22). The primary task in this science is a causal one: ‘[W]e, too, have to grasp the first causes of what is insofar as it is [or of ‘being qua being’]’ (1003a31-32). In *Meta. Γ.2*, he goes on to

²⁹ At 1028b18-27, Aristotle considers various Platonist views due to Plato himself, Speusippus, and (probably) Xenocrates about the fundamentality of forms, numbers, geometrical objects, and physical objects.

³⁰ At the end of *Z.2*, Aristotle restates the question ‘What is substance?’ (1028b32). In line with my reading, one could naturally take him to ask a general causal ‘What is it?’ question about substance₁ which will then allow him to figure out which ones of the candidate substances₁ are in fact substances₁.

³¹ In *E.1*, Aristotle also argues that ‘theology’ is first philosophy (1026a19). We will return to this in section 6.

argue that the core of this causal enquiry concerns substance: ‘[I]t would seem that the philosopher has to get hold of the principles and causes of substance’ (1003b18-19).³²

The reason why first philosophy is centrally concerned with the principles and causes of substance is that, according to Aristotle, being has a *pros hen* or ‘towards one’ structure, with substance at the centre. According to Aristotle, ‘being [or ‘what is’ (τὸ ὄν)] is said in many ways’ (Γ.2, 1003a33, b5), and there is no genus of being (*Meta.* B.3, 998a22). Still, there can be a science of being qua being because being is not said merely homonymously but ‘towards one (πρὸς ἓν) and some one nature’ (1003a33-34). While the details of the proposed *pros hen* structure are controversial,³³ the salient point for us is that all categorial entities, that is, substance, quality, quantity, and so forth, are ‘said to be things that are (ὄντα)’ because they are substances or related to substance in some way, for instance, as affections of substance (1003b6-10). Hence, the philosopher’s main task, in order to grasp the principles and causes of being qua being, is to grasp the principles and causes of substance.³⁴

In *Meta.* Z.1, the claim that the question ‘What is being?’ amounts to the question ‘What is substance?’ (1028b4) is also motivated by appeal to the *pros hen* structure of being. The chapter, and hence *Meta.* Z as a whole, begins with the familiar claim that ‘being is said in many ways’ (1028a10),³⁵ and Aristotle proceeds to explain that ‘the others [i.e., the non-substance categorial items] are said to be things that are by being quantities, qualities, affections, or some other such thing of what is in this way [i.e., substance]’ (1028a18-20). Later, Aristotle clarifies that substance is prior to non-substances in three ways,

³² This characterization in Γ is not novel. Already in *Meta.* A.1, Aristotle said about ‘wisdom’ that ‘it is clear that wisdom is a science about some principles and causes’ (982a1-3; cf. 981b27-29; A.2, 983a7-10; A.3, 983a24-16). Moreover, *aporia* 1 in *Meta.* B implies that wisdom seeks the first causes of substance (B.1, 995b6-8; B.2, 996b13-14). In Γ.1 and the first part of Γ.2, Aristotle does not call the science of being qua being ‘wisdom’, but two mentions of ‘wisdom’ later in Γ.2, 1004b19, and in Γ.3, 1005b1, suggest that the science of being qua being is indeed the science he called ‘wisdom’ in *Meta.* A and B.

³³ For a general discussion of the *pros hen* structure, see Owen (1960); Shields (1998); Ward (2010). For the question whether the *pros hen* structure of being is sufficient, or merely necessary, for there to be a science of being qua being, see Politis & Steinkrüger (2017).

³⁴ Or more precisely, the causes of substance ‘insofar as it is (ἢ πέφυκεν)’ (Γ.3, 1005b-5-7), as opposed to, say, substance insofar as it is movable.

³⁵ The direct reference at Z.1, 1028a10-11, is to *Meta.* Δ.7. Still, Z.1 can also be related to Γ.2.

namely, in account, knowledge, and time (1028a32-33), and finally concludes that the question ‘What is it?’ ‘is’ or *amounts to* the question ‘What is substance?’.³⁶

Of course, even if the study of substance is motivated in the same way in both Γ.1-2 and Z.1, this need not imply that the study of substance amounts to the same in the two contexts. In particular, even if, in Γ.1-2, Aristotle uses the *pros hen* structure of being in support of the conclusion that the philosopher’s central task is to grasp the causes of substance, he may have something else in mind in Z.1: We should identify the successful candidate for (primary) substance in order to make progress with the study of being. However, given that the question ‘What is substance?’ can be understood as a why-question asking for the causes of substance (namely, of substance₁), the parallel with Γ.1-2 is at least suggestive of a reading on which Z.1, too, introduces a causal enquiry.

This reading can be strengthened if we bear in mind what Aristotle says right before Z.1, that is, at the end of *Meta*. E.4: ‘Let those things [i.e., accidental being and being as truth] be set aside, and let us examine (σκεπτέον) the causes and the principles of being itself qua being’ (1028a3-4). These lines seem intended to introduce Z as an enquiry into the first principles and causes of being qua being of the sort we should expect, given Γ.1-2.³⁷ But now E.4-Z.1 mirrors the structure of Γ.1-2: First, Aristotle states the goal of the enquiry, namely, to grasp the first principles and causes of being qua being. Second, he introduces the *pros hen* structure of being centred around substance. And third, he concludes that the central task is the study of substance. Anything other than an extension of this parallel to the conclusion of

³⁶ I take it that the ‘is’ at 1028b4 is not reductive. That is, ‘What is being?’ amounts to ‘What is substance?’ in the sense that the latter is the central question for answering the former question (cf. Gill 1989: 13). But ‘What is being?’ cannot simply be replaced by ‘What is substance?’ because it takes an additional step from an account of the causes of substance to the causes of being qua being more broadly.

³⁷ According to Jaeger (1912: 168), E does not have any connection with ZH, and more generally, ABΓE and ZH represent different projects. But notably, even if one thinks that ZH (or ZHΘ) were written as a separate treatise, one can hold that ZH were inserted by Aristotle after E with a purpose – namely, to respond to the issues set out in ABΓE (Burnyeat 2001: 11). At any rate, it is hard to read the end of E as anything other than an introduction to ZH. For it is clearly a call for establishing the first causes of being qua being. And it would be surprising if that call were not addressed in some way in the ensuing ZH but only much later, e.g., in Λ. For a detailed response to Jaeger, see Menn (unpublished: IIα1).

the argument would seem surprising. That is, it would seem surprising if Aristotle's conclusion in *Z.1* were not, like in *Γ.2*, that the central task is to grasp the causes of substance.

Moreover, at the beginning of *Meta. H*, that is, after concluding *Meta. Z.17*, Aristotle says: 'From what has been said, we have to draw conclusions and, summing up the chief point, to complete the picture. It has been said, then, that the causes, the principles, and the elements of substances are sought' (*H.1*, 1042a3-6). *H.1* has a summary character, as Aristotle alerts us in the first sentence, and the summary is of material presented in *Meta. Z*. For example, he restates the four entities said to be substance from *Z.3*, that is, essence, subject, universal and genus (1042a12-15), he recalls that definition is an account of the essence from *Z.5*, 1031a11-14, as well as the discussion of the parts of definition and substance from *Z.10-11* (1042a17-21), and sums up (part of) the conclusion of *Z.13-16*, namely that the universal and the genus is not a substance (1042a21-22). Plausibly, then, the claim that we are seeking the causes and principles of substance, too, concerns the preceding discussion in *Z*.

Let us take stock: I have argued that the question 'What is substance?' in *Z* can be read as asking a 'what is it?' question about substance₁ which initiates an enquiry into the causes of substance₁. Moreover, the project of first philosophy is introduced as precisely such a causal enquiry in *Γ.1*, and *Meta. Z* is framed by explicit references to that causal enquiry, both at the end of *E.4* and at the beginning of *H.1*. Furthermore, the arguments from the claim that we seek the causes of being qua being to the conclusion that our central concern is with substance are strikingly parallel in *Γ.1-2* and *E.4-Z.1*. On the basis of this evidence, I submit that the question 'What is substance?' in *Z* is best understood as asking for the (first) principles and causes of substance (that is, of substance₁).

On the proposed reading of the question 'What is substance?', in both *Z.1* and *Z.17*, Aristotle's account of the cause of being in *Z.17* directly responds to that question. For Aristotle's answer is that the substance₂ or essence is the first cause of being of a composite substance₁ (although that answer has to be spelled out further in conformity with the triadic

model of explanation). What is more, thus understood, Z.17 offers a response not only to the central question of Z but also to the question of first philosophy, as set out in Γ.1-2. For Aristotle's answer to the question 'What is substance?' is, by the same token, an answer to the question as to the first principles and causes of substance. Hence, Z is integrated with the overall project of first philosophy, and as a *positive* contribution to that project.³⁸

We should not overstate the case: Z.17 gives us the first cause of being of *perceptible* substances (1041a7-9). Immaterial substances require a different treatment, as we will see below. Still, if Z.17 offers a complete account of the first cause of being of perceptible substances, *Meta. Z* independently secures a central result of first philosophy – and this may already seem like an exegetical step too far. For it is sometimes argued that Aristotle's account of perceptible substances is completed not in Z but in the ensuing *Meta. H*. Further, one may press Aristotle's characterization of first philosophy as 'theology' (*Meta. E.1*, 1026a19) and argue that the first causes of perceptible substances will be reached only in the discussion of immaterial substances. Let us take those objections in turn.

5. The Place of Z.17 in *Meta. Z-H*

Metaphysics Z-H is often treated as a unit, although the exact relationship between the two books is contested.³⁹ On the view I have defended, Aristotle offers an answer to the guiding question of Z 'What is substance?' in Z.17: Roughly, the substance₂ or essence of a composite substance₁ is its cause of being. But if Aristotle reaches that conclusion already in Z.17, one might wonder what the point of the ensuing *Meta. H* is. From a different viewpoint, one may be concerned about the role of Z.3-16. For if Aristotle formulates the question 'What is

³⁸ *Pace* Menn (2001; unpublished) who argues that Z is a *negative* response to the queries of first philosophy. See section 6 for more on Menn's view.

³⁹ See, e.g., Devereux (2003) for a discussion.

substance?’ in Z.1-2 and answers it in Z.17, what is the point of the intervening chapters of Z? I will first respond to the latter query before saying more about H.

There are several interpretations of Z that are compatible with my reading of Z.17. For example, one could argue that Z.3-16 are aporetic, and the positive response to the question ‘What is substance?’ is forthcoming only in Z.17.⁴⁰ Or one could argue that *Meta. Z* is non-linear and divides into independent sections, each of which arrives at the same conclusion as Z.17.⁴¹ But my preferred interpretation is linear and non-aporetic: In Z.3-16, Aristotle builds up towards the conclusion of Z.17. In the following, then, I will give a sketch of such an interpretation of Z. My goal is not to defend the sketch itself, but rather to show that there is an avenue for integrating my reading of Z.17 with an interpretation of Z.

We saw that, in Z.3, Aristotle lists four entities that are said to be substance: essence, universal, genus, and subject (1028b33-36). Most of Z.3 is concerned with the subject, that is, the ultimate subject of predication. This, as we also saw, is one of the two chief senses of ‘substance’ which Aristotle gives in *Meta. Δ.8*, 1017b23-24, and the sense operative in *Cat. 5*, 2a11-14: A substance is an ultimate subject of predication which is not further predicated of anything else (Z.3, 1028b36-37). But towards the end of Z.3, Aristotle also recalls the second sense of ‘substance’ from *Meta. Δ.8*, that is, the sense in which a ‘substance’ is the substance of something else. More precisely, according to Δ.8, a substance in the second sense is ‘that which, being a this-such, is also separate; the form and the shape of each thing is such’ (1017b24-26). Similarly, Aristotle states in Z.3 that ‘separation (τὸ χωριστόν) and the this-such (τὸ τὸδε τι) seems to belong to substance most of all’ (1029a27-28).

Both the content of this claim and its role in the argument of Z.3 are controversial. In light of a later passage in *Meta. H.1*, it seems that a substance in the second sense can be

⁴⁰ This is akin to Gill’s (2006) interpretation according to which Z.17 initiates the positive account of primary substances, after the aporetic Z.1-16.

⁴¹ For a non-linear reading of Z, see Burnyeat (2001: 4-6).

‘separate’⁴² in two ways: ‘in account’ or ‘simply’ (1042a28-31), where the latter is often taken to be existential separation (see, e.g., Gill 1989: 36; Wedin 2000: 173). Thus, both the matter-form composite and the form are separate – the former in existence and the latter in definition.⁴³ Moreover, both the matter-form composite and the form are a ‘this-such’ (Z.3, 1029a27-30). According to some commentators, any this-such must be an *individual*, and hence Z.3 implies that forms are individuals (see, e.g., Frede & Patzig 1988 II: 52). Other scholars have argued that a this-such need be merely a *determinate* entity, not an individual, and thus allow that a form is a this-such without being an individual (see, e.g., Gill 1989: 31-34). We do not have to enter this debate here (see Corkum 2019 for a recent discussion). But assuming that being an individual is one way of being determinate, Aristotle claims minimally that substances in the second sense, such as composites and forms, are determinate entities, unlike matter which he calls ‘indeterminate’ (ἀόριστον) (see, e.g., Z.11, 1037a27).⁴⁴

At least part of Aristotle’s point in adverting to the second sense of ‘substance’ in Z.3 is to emphasize that the first sense, in which a substance is an ultimate subject of predication, cannot be the *only* relevant sense for thinking about substance. For if it were, it would turn out that (only) matter is substance, since matter seems to be the ultimate subject of predication – and yet, the composite and the form are also substances (1029a16-30). One could take this thought a step further and argue that Aristotle intends to refine the first sense of ‘substance’ by building in separability and this-suchness conditions (Gill 1989: 30), or even that he wishes to set aside the first sense of ‘substance’ for the purposes of Z. But it suffices for now to read Z.3 simply as motivating the introduction of the second sense of ‘substance’ *in addition to* the first sense. This is important because, as emerges from Δ.8 (1017b21-26),

⁴² I follow Morrison (1985a; 1985b) in translating χωριστός as ‘separate’, but I will leave open whether ‘separation’ could ultimately be understood in terms of a capacity to be separate, as Fine (1984) has argued.

⁴³ However, Katz (2017: 48-49) argues that H.1 allows that the form, too, is ‘simply’ separate and also that ‘simple’ separation should not be understood in merely existential terms. Regardless of one’s verdict on this issue, there is at least some sense in which both the composite and the form are separate, according to Z-H.

⁴⁴ However, matter is still potentially a this-such (H.1, 1042a27-28) since it can receive a form and thus come to constitute a determinate composite.

essence or form is substance in the second sense ('substance₂'), and essence will be the dominant topic of the ensuing Z.4-11 – to which we turn now.

It is often thought that the conclusion of Z.4-11 is that form is primary substance. Indeed, Aristotle explicitly states this claim in the summary at the end of Z.11: 'Substance is the immanent form' (1037a29; 1037a28 makes clear that he means *primary* substance). I do not wish to dispute here that this may be a conclusion of Z.4-11. Indeed, if Aristotle argues there that form is (primary) substance, this may partially explain why, as I have argued, this is *not* also the central conclusion of Z.17. But Aristotle also draws another conclusion in Z.4-11 which should interest us at least as much because it concerns the explanatory priority of substance₂ or essence over the composite substance₁.

In the summary in Z.11, the claim that 'substance is the immanent form' is embedded in a longer claim about definition:

The parts in this way, i.e., as matter, will not be in the account of the substance – for they are not parts of that substance either but of the whole substance, and of [the whole substance], there is an account in some sense, and there is not: For there is no [account] with the matter (for it is indefinite), but in accordance with primary substance there is, e.g., of human being the account of the soul; for the substance is the immanent form from which and the matter the whole substance is said. (1037a24-30)

The overarching conclusion here seems to be not that form is primary substance. Rather, Aristotle relies on that claim to spell out a different conclusion: The 'whole' or composite substance can only be defined with reference to its primary substance₂ or essence or form.

This interpretation accords well with the conclusion drawn in the earlier chapters Z.4-5, where Aristotle argued that 'definition is an account of the essence' (Z.5, 1031a12). This section was formulated in the 'logical mode' (Z.4, 1030a25), and hence without reference to matter and form. By contrast, in Z.7-11, Aristotle relied on hylomorphic resources. Hence, in Z.11, Aristotle can reframe the conclusion from Z.4-5 in hylomorphic terms: The matter-form composite is to be defined with reference to its essence, that is, its form. But the basic

conclusion remains the same: A composite substance₁ is defined with reference to its essence or substance₂, and therefore explanatorily posterior to it.

Notably, this reading of Z.4-11 is neutral on the contested issue of the ‘purity’ of forms: Regardless of whether forms are defined with reference to the matter of the composite (‘impure’), or not (‘pure’), the essence or form has explanatory priority over the composite.⁴⁵ By contrast, more may have to be said about the priority of form if one holds that, according to Z.10-11, composites ought to be defined with reference to both their form and, in addition, their matter (Gill 1989, ch. 4; Heinaman 1997). On this view, the form is still explanatorily prior to the composite but it is not by itself sufficient to explain what the composite is. I cannot discuss the ramifications of that view here, but it is worth pointing out that its proponents will face concerns also about the triadic model explanation. For, if they are right, it seems that the essence or form alone cannot be the sole cause of being for composite substances, as Aristotle argues in Z.17 (Charles 2021: 91).

On the other hand, if the conclusion of Z.4-11 is that essence or form is explanatorily prior over the composite substance, and by itself sufficient to explain what the composite substance is, those chapters constitute a crucial step towards the causal claims in Z.17: Since substance₂ or essence is explanatorily prior to substance₁, it can be the first cause of its being, that is, the first cause of some matter constituting a composite substance₁ of a certain sort.

The intervening Z.13-16, too, fit in well with the proposed interpretation of Z.17. In those chapters, Aristotle argues that ‘none of the things said universally is a substance, nor does any substance consist of substances’ (Z.16, 1041a3-5). The motivation for the discussion of universals is stated in causal terms: ‘For to some, the universal, too, seems to be a cause most of all, and the universal [seems to them] to be a principle’ (Z.13, 1038b6-8). Hence, it seems that the goal of the argument that universals are not substances is to rule out an account on

⁴⁵ For a classic statement of the pure form view, see Frede (1990), and for impure forms, see Peramatzis (2011, chs. 1-7) and Charles (2021, especially ch. 2).

which *universals* are the principles and causes sought by the first philosopher. In particular, since the universal is not the substance of each thing (1038b8-12), it does not have the sort of explanatory priority which essence has over the composite substance. Thus, in Z.13-16, Aristotle clears the way for his own positive proposal in Z.17 that the essence of a composite substance is its first cause of being.⁴⁶

Of course, much more could be said about the structure of Z. But I hope to have indicated a promising avenue for integrating Z.17, as interpreted here, with the rest of Z: *Meta. Z* as a whole can be read as building up towards the conclusion that substance₂ or essence is the cause of being of the composite substance₁, most crucially by securing the explanatory priority of essence over the composite.

However, now a new objection arises: If Z.17 is integrated with Z in roughly the way suggested, why does Aristotle say in Z.17 that he is ‘making a fresh start’ (1041a7)? And what is the purpose of the ensuing discussion of *Meta. H*? Those questions tend to arise in tandem because scholars who emphasize that Z.17 makes a fresh start usually read Z.17-H.6 as a unit that takes us beyond the enquiry pursued in the earlier books of Z.⁴⁷

Effectively, I have already stated my response in reconstructing the mereological passage in Z.17. There, we encountered the view that the goal of Z.17, or at least of the mereological passage, is to secure the *unity* of substance. But, as I argued earlier, the main conclusion of Z.17, including the mereological passage, concerns the cause of *being*, not the cause of unity. That said, I noted that the issue of the unity of substance does surface in Z, even if not in Z.17, and also that the issues of being and unity are related: Essence or form is both the cause of being and the cause of unity. My suggestion, then, is that, in *Meta. H*, Aristotle picks up the

⁴⁶ On one reading of Z.13-6, this conclusion implies that essences or forms must be individuals (see, e.g., Frede & Patzig 1988 I: 36-42). On a different view, Z.13-16 rule out merely that universal species and genera are substances, without implying that essences or forms are individuals (see, e.g., Wedin 2000, ch. 9). Both views are compatible with my point that essence, not the universal, is the first cause of being of substances₁: On the first view, this implies that essence itself cannot be universal, on the second view, it does not.

⁴⁷ See, e.g., Gill (2006). Similarly, Burnyeat (2001: 71) says that ‘H.6 is the crowning moment of ZH’, and already Jaeger (1912: 170) characterized H as the ‘Krönung’ of the discussion of substance begun in Z.

picture of substance as cause as developed in Z.17 and uses it to secure an additional result not reached in Z.17, namely, the unity of definition and substance.

In *Meta. H*, the issue of the unity of definition is stated first in H.3 (1043b32-44a11), and then again in H.6: ‘About the puzzle that was mentioned concerning definitions and concerning numbers: What is the cause of their being one?’ (1045a7-8). Aristotle’s first move is to argue that the unity of definition depends on the unity of the substance of which it is a definition (1045a12-14). There is considerable disagreement about Aristotle’s ensuing treatment of the unity of substance: Some scholars think that his main goal is to secure the unity of the composite (Ross 1924 II: 238; Gill 1989: 139-44; Charles 1994; Lewis 1994), others that he mainly aims to establish the unity of form (Harte 1996). Moreover, some hold that the form is the cause of the unity of matter and form (Lewis 1994; Harte 1996), whereas others have argued that matter and form just are unified, without further need for a cause of unity (Keeling 2012). These controversies notwithstanding, it is generally accepted that Aristotle’s concern is with the *unity* of substance and definition.

Thus, *Meta. H* culminates in an account of the unity of substance. This is not to say that the topic of the cause of being is forgotten in H. After all, we saw Aristotle argue in H.2 that ‘substance is the cause of being each thing’ (1043a2-3). Aristotle may, of course, return to the account of the cause of being given earlier in Z.17. I have argued merely that this account *has* been given in Z.17. Moreover, I have suggested a way of reading H as pressing beyond Z, namely, by securing the unity of substance, which does not conflict with my conclusion that an adequate account of the cause of being was developed already in Z.

How, then, should we understand Aristotle’s claim in Z.17 that he is ‘making a fresh start’? In much the same way as it is often understood: Aristotle returns afresh to the question ‘What is substance?’, with the thought that substance is a cause and principle. This allows him to develop his positive account of the cause of being in Z.17. Moreover, he can continue to exploit the same thought in H to respond to the question as to the cause of unity of definition

and substance. But none of this implies that the question ‘What is substance?’ did not ask for the causes of substance all along, nor that the previous chapters of *Z* were not steps towards the account of the cause of being given in *Z.17*. The ‘fresh start’ marks the beginning of the completion of an investigation that has been under way since *Z.1*, not a new investigation.

6. *Meta. Z.17* and Theology

So far, I have argued that the central conclusion of *Meta. Z.17* is that essence or form is the first cause of being of (perceptible) composite substances, or more precisely: Essence or form is the first cause of some matter constituting a composite substance of a certain sort.

Moreover, I have argued that this conclusion responds to the question ‘What is substance?’ from the beginning of *Meta. Z*, and thereby also to the quest for the causes of substance, as set out in *Meta. Γ.1-2*. Hence, *Z.17* addresses the main question of first philosophy.

It is clear, however, that the answer given in *Z.17* is not *exhaustive*. For we saw that *Z.17* provides the causes only of *perceptible* substances. This restriction is explicitly in place from the start of *Z.17* when Aristotle says that the present enquiry into perceptible substances may also provide clarity about ‘that substance which is separated from the perceptible substances’ (1041a7-9). Furthermore, after he has outlined the application of the triadic model of explanation to substance, he notes that, in the case of simple things, ‘a different mode of search’ is required (1041b9-11). The simple things in question will include immaterial substances. For of course, the account of the cause of being of a substance cannot involve its matter if the substance is immaterial.

The restriction of the account in *Z.17* to perceptible substances does not come as a surprise. In *Z.11*, Aristotle explicitly deferred the study of substances other than perceptible ones to a later occasion (1037a10-20). This later occasion seems to be twofold: On the one hand, in

Meta. M-N, Aristotle will argue that mathematical objects are not substances, or at any rate not prior in being to perceptible substances (see, e.g., M.2, 1077b12-14). On the other hand, in *Meta.* Λ, and perhaps starting from Θ.8,⁴⁸ Aristotle gives a positive account of ‘unmovable’ and immaterial substance (Λ.1, 1069a33), in particular, the prime unmoved mover. By itself, the division of labour between Z and later books of the *Metaphysics* does not threaten my reading of Z.17. For Aristotle can give a positive account of the first causes of perceptible substance in Z.17, and later supplement it with a discussion of immaterial substances. But a worry arises from his apparent *subordination* of the discussion of perceptible substances to the treatment of immaterial substances.

In Z.11, for example, Aristotle says that ‘it is for the sake of this [i.e., the issue whether there are immaterial substances] that we are trying to make determinations about perceptible substances, too, since in some sense (τρόπον τινά), the investigation of perceptible substances is the task of physics and second philosophy’ (1037a13-16; cf. Z.17, 10417-9). One might infer that the *only* reason why the first philosopher is interested in perceptible substances is that they provide a steppingstone towards an account of immaterial substance (Burnyeat 2001: 129). But this seems too strong: Aristotle says merely that, ‘in some sense’, the investigation of perceptible substances is the task of physics since the physicist has to know the form of a natural substance even more than the matter (1037a16-17). This does not imply that the first philosopher has no interest in perceptible substances in their own right.

Indeed, if it is the general task of the first philosopher to grasp the causes of substances, surely, this will prominently include perceptible substances. Hence, insofar as Z.17 achieves that task, it makes a central contribution to first philosophy. But there is a more pressing objection in the vicinity, namely that the first philosopher cannot offer an account of the first causes of perceptible substances without appeal to immaterial substances.

⁴⁸ Scholars who stress the connection between Θ.8 and Λ include Menn (unpublished: IIIα3) and Judson (2018).

Two prominent views give rise to this objection. On the first view, held by Joseph Owens (1951/78) and Michael Frede (1987; 2000), the first causes of perceptible substances are indeed causes of being, as on my reading of Z.17. But Z.17 is preliminary to Aristotle's ultimate account on which immaterial substances are the causes of being of perceptible substances. On the second view, developed by Stephen Menn (unpublished: IIIβ-γ), the first cause of perceptible substances is *not* a cause of being at all, and hence Z.17 is part of a failed attempt at reaching the first causes of perceptible substances. Aristotle's positive account will be given only in Λ.6-10 where the immaterial prime mover turns out to be the first cause of perceptible substances – not as their cause of being but as a first efficient cause.

The strength of these views, and hence the objection they support, depends on delicate issues about the relation between Λ and Z, which I cannot address at length. But some observations may help to shore up my reading of Z.17. Aristotle makes clear in Λ.1 that he is still engaged in the project of first philosophy: '[T]he principles and causes of substances are sought' (1069a18-19). But what he has to say in Λ is compatible with his conclusions from Z.17, as I read it. In Λ.2-5, Aristotle identifies matter, form, privation, and the moving cause as principles and causes of perceptible entities (Λ.5, 1071a34), and he concludes at the end of Λ.5: 'It has been said, then, which are the principles of perceptible entities and how many, and how they are the same and how different' (1071b1-2). The exact relationship between those chapters and Z is difficult (see Judson 2000; Crubellier 2016), but they do not introduce unmovable substances as causes of perceptible substances. In that respect, then, the first half of Λ neither progresses beyond nor undermines the account from Z.17, as presented here.⁴⁹

In Λ.6-10, by contrast, unmovable substances take centre stage. Aristotle argues that 'there is some substance that is eternal, unmovable, and separated from perceptible entities' (Λ.7, 1073a3-5), and he does so, roughly, on the grounds that a prime unmoved mover is required

⁴⁹ Hence, Menn (unpublished: IIIβ1) takes Λ.1-5, too, to be part of Aristotle's negative account.

to move the first heaven which in turn moves everything else (1072b3-4). Ultimately, then, the prime unmoved mover is responsible for the generation and perishing of perceptible substances (Λ .6, 1072a10-12). Hence, it seems that the prime unmoved mover is a first *efficient* cause of perceptible substances which explains their generation and perishing (Gill 2006: 368-69; Menn unpublished: III β 2a).⁵⁰ But his claim does not conflict with the account of the *cause of being* of perceptible substances as given in Z.17. For the prime unmoved mover explains the generation and perishing of perceptible substances, not why a substance is the sort of substance it is.

Both of my opponents accept this schematic reading of Λ . That is, they accept the claim that, in Λ , all we get is an account of the prime unmoved mover as a first efficient cause of perceptible substances. Owens (1951/78) and Frede (2000) conclude that the extant Λ is a disappointment, and Owens (1951/78, ch. 19) goes on to reconstruct a better Λ^* which delivers what we should have expected, namely, an account on which immaterial substances are the causes of being of perceptible substances. By contrast, Menn (unpublished: e.g., III β 2a), thinks that no positive account of the cause of being is given in the *Metaphysics*. But this is fine, on his view, because the efficient-causal account in Λ is satisfactory: The first cause of perceptible substances is merely an efficient cause, not a cause of being.

Neither consequence seems appealing to me. For even if one rejects the details of my interpretation of Z.17, it seems hard to deny that Aristotle recognizes the need for an account of the cause of being of perceptible substances. After all, he explicitly asks questions such as ‘What is a human being?’ and also explains how we can correctly formulate, and answer, such questions. But if Aristotle recognizes that need, we might expect him to give a positive response to it somewhere in the extant *Metaphysics*.

⁵⁰ The prime mover causes motion by being a final cause, namely, as an object of desire (‘it moves as being loved’, Λ .7, 1072b3). But there is a further question whether the prime mover is an efficient cause exclusively by being a final cause, or whether it is also an efficient cause in an additional sense. This question should remind us of the debate concerning the causal roles of essence in Z.17. See, e.g., Miller Jr. (2013) for a discussion.

On my interpretation of Z.17, that expectation is met. For Aristotle gives a positive, and final, account of the first causes of being of perceptible substances in Z.17. This does not preclude that, in Λ, Aristotle supplements his account with a study of immaterial substances and also with an account of the prime unmoved mover as the first efficient cause of the generation and perishing of perceptible substances. There is no need, then, to give up on the account of the first cause of being from Z.17 in light of Λ. Indeed, we can not only meet the objection here but turn the tables: If among the three views, only mine yields an account of the cause of being in the extant *Metaphysics*, this is a reason to accept it.

However, the objection can be pursued further. In *Meta.* E.1, Aristotle characterizes first philosophy as ‘theology’ (1026a19) concerned with ‘separate and unmovable entities (χωριστά καὶ ἀκίνητα)’ (1026a16).⁵¹ Hence, it may seem implausible that as substantive a part of first philosophy as I have made out is completed in the decidedly untheological Z.17. The strongest version of this objection is due to Günther Patzig (1960) and Frede (1987) and draws on the final lines of E.1 which connect theology and the science of being qua being:⁵²

So, if there is not some other substance besides the ones joined by nature, physics would be the first science. But if there is some unmovable substance, this [science] is prior and first philosophy, and universal in this way because first. And it would be the task of this science to investigate being qua being, both what it is and the things that belong [to it] qua being. (1026a27-32)

Earlier, Aristotle asked ‘whether first philosophy is universal or about some genus and some one nature’ (1026a24-25). The latter option might suggest itself in light of the claim that first philosophy is theology which studies the separate and unmovable entities (1026a16). But

⁵¹ As above, I translate ‘χωριστός’ as ‘separate’. But I will translate ‘ἀκίνητος’ as ‘unmovable’ since divine substances are not only not moved but cannot be moved. Of course, being unmovable implies being unmoved.

⁵² On a different version of the objection, being qua being *is* the prime mover (Merlan 1957), and hence the science of being qua being just is theology. However, we saw that, in Γ.1, the science of being qua being seems to be introduced as a science of all entities whatsoever insofar as they are, not as the science of a particular entity. Similarly, E.1 begins with the claim that ‘the principles and the causes of things that are (τῶν ὄντων) are sought, and it is clear that [these are the principles and causes of things that are] insofar as they are (ἢ ὄντα)’ (1025b3-4). It does not seem promising, then, to simply identify being qua being with the prime mover. See also Guyomarc’h (2014) who argues that the expression ‘first philosophy’ need not refer to theology in Aristotle.

Aristotle's view is that, despite that characterization, first philosophy is still universal and studies all things whatsoever. In our passage, he explains why this is the case.

According to Frede (1987: 84-85), we should stress the phrase 'universal because first': Theology is first philosophy because it studies the first entities, that is, divine substances, or more precisely, the way of being of divine substances. And because it is first in this way, theology studies the being of all entities and is therefore universal. For the being of all other entities is *pros hen* related to the being of divine substances and hence explained by it. This, of course, is just the first of the two opposing views we considered earlier: The account of the first cause of being of perceptible substances can be completed only with appeal to immaterial substances. As we saw, this interpretation runs into the problem that the discussion of immaterial substances in the extant Λ does not deliver what the interpretation makes us expect. But is there an alternative way of construing the end of E.1?

Lindsay Judson (2018: 264) has suggested that theology is universal because it is part of the universal science. For, on Judson's view, theology contributes to establishing the general principle that actuality is prior to potentiality. But Aristotle's claim seems to be stronger: It is the task of theology, and of theology alone, to study being qua being. That is, theology just is the universal science (not a part of it). Still, Judson (2018: 247-48) seems right to insist against Patzig and Frede that the study of separate and unmovable substances is not the same as the study of being qua being. This thought can be developed into a different reading.

My proposal is to loosen the tie between the universality of theology and its role as a science of being qua being: The universality of theology does not *consist in* its being the science of being qua being. Rather, theology is the universal science because all entities are in its domain, and *because* all entities are in its domain, it is the task of theology to study anything whatsoever insofar as it is, that is, being qua being. Moreover, theology is 'universal because first' not in the sense that its study of immaterial substances *is* the study of all entities. Rather, theology is first because its domain also includes the first entities, and the

firstness of theology in turn explains why it is universal. For because theology is first in this way, that is, because its domain also includes the first entities, its domain, unlike that of physics, includes all entities, not just the movable ones.

For short, then, theology is universal because its domain includes all entities, and because theology is universal in that way, it is also the task of theology to study being qua being. But if there were no unmovable substance, physics would study the first entities (namely, the movable ones), and the domain of physics would include all entities (since all entities are movable). Hence, physics would be universal, and thus, it would also be the task of physics to study all entities whatsoever insofar as they are – or being qua being.

One might object that, earlier, Aristotle said that ‘the first [science] is about entities that are both separate and unmovable’ (1026a15-16). Hence, one might think that theology is only about separate and unmovable substances. But all Aristotle’s remark need imply is that it is characteristic of the first science that it studies separate and unmovable substances. For, as mentioned above, Aristotle goes on to argue that first philosophy is universal and not ‘about some genus and some one nature’ (1026a24-25). It does not seem plausible, then, that theology excludes the study of movable entities. Indeed, we saw that *Meta. Λ* is prominently concerned with motion, and not just with an account of unmoved movers but also with, for instance, the first heaven that is moved. Hence, unless one wants to claim that even most of *Λ.6-10* is not theology because it includes a study of movable substances, the domain of that science should include both unmovable and movable substances.

The more fundamental objection is to my characterization of the universality of first philosophy in terms of its domain. For one might hold that the universality of first philosophy is due to its *method*, not the extension of the entities it investigates: First philosophy is universal because it studies entities insofar as they are (and *therefore* can study all entities) (Gill 2006: 349; Shields 2012: 347). But this alternative reading gets the direction of Aristotle’s reasoning in *E.1* wrong. For he does not argue from the claim that first philosophy

studies being qua being to the conclusion that it can study all entities. Instead, he first argues that first philosophy is universal, because it is not restricted to the study of a single genus, and then draws the conclusion that it is the task of first philosophy to study being qua being.

How does all of this bear on my interpretation of Z.17? The objection we confronted was that the characterization of first philosophy as theology is in tension with my claim that Z.17 can complete an important part of first philosophy, namely, the account of the first causes of being of perceptible substances, without appeal to immaterial substances. But on the proposed reading of E.1, we can understand Aristotle's claim that theology is in charge of the study of being qua being without assuming that, therefore, the study of being qua being *must* involve immaterial substances. Only theology is in a position to study all entities insofar as they are, or being qua being, because only the domain of theology includes all entities. But this does not imply that every part of the study of being qua being has to appeal to immaterial substances. Theology has the resources to give, for example, an account of the prime unmoved mover as a first efficient cause. But the first philosopher or theologian is not compelled to bring in immaterial substances at every juncture. On the view I have developed here, the account of the first causes of being of perceptible substances, is an important part of first philosophy that can be completed without reliance on immaterial substances.

7. Conclusion

I have argued that, in *Meta. Z.17*, Aristotle completes an important part of the project of first philosophy. For he argues that essence is the first cause of being of the perceptible (composite) substance, or more precisely: Essence is the first cause of some matter constituting a perceptible composite of some sort. In so doing, he answers the question 'What

is substance?’ from the beginning of Z and, by the same token, gives a positive response to the first-philosophical enquiry into the first causes of substance, as formulated in Γ.1-2.

None of this is to say that Aristotle completes the *entire* project of first philosophy in Z.17. First of all, as discussed, the account in Z.17 is restricted to perceptible substances. Indeed, we have seen Aristotle indicate that the triadic model of explanation on which Z.17 rests cannot be applied in the same way to immaterial substances as to perceptible composites (1041b9-11). Hence, an additional discussion of immaterial substances will be required in *Meta.* Λ.6-10. Moreover, also in Λ, the account of the first causes of being of perceptible substances from Z.17 is supplemented with an account of the first efficient cause of their generation and perishing.

What is more, despite the *pros hen* structure of being, it is not obvious how an account of the first causes of substance will lead to an account of the first causes of being qua being. For the latter would require an account of the causes of non-substantial categorial items as well. Perhaps such an account is latent in Aristotle’s claim that, in some sense, not only substances but also non-substantial entities have an essence (Z.4, 1030a27-b3). Or perhaps, the requisite work will be done in Λ on the basis of the claim that, in a sense, the causes and principles are the same of all things ‘in accordance with analogy’ (κατ’ ἀναλογίαν) (Λ.4, 1070a31-33). At any rate, even in the case of perceptible entities, Aristotle will have to go beyond an account of perceptible *substances*.

Finally, there is an entire strand of first philosophy which does not directly concern the *causes* of being qua being but rather its per se attributes (see Shields 2012). After all, in Γ.1, Aristotle says that first philosophy ‘investigates being qua being and the things that belong to it by itself’ (1003a21-22). For, in response to *aporia* 4 (B.2, 997a25-34), Aristotle argues that a single science has to study substance and its attributes (Γ.2, 1005a13-18). Hence, the (first) philosopher will also be in charge of questions such as ‘whether Socrates and sitting Socrates are the same’ (1004b2-3). Similarly, it will be part of first philosophy to defend the general

principles from which all demonstrations proceed (see *aporia* 2 at B.2, 996b26-97a15), such as the principle of the excluded middle and the principle of non-contradiction (both discussed in *Meta. Γ*). The scope of Z.17, then, is limited. Nonetheless, as I hope to have shown, Z.17 directly addresses, and gives a positive response to, a central concern of first philosophy, namely, what the first causes of being of perceptible substances are.

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