

ARISTOTLE ON THE MANY SENSES OF BEING

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1. The senses of being and the necessity of *Δ*. 7

ARISTOTLE THINKS that serious philosophical errors have been made, from Parmenides down to his own day, as a result of failing to draw distinctions between different senses of being. He thinks it is important to draw such distinctions, in order both to avoid these errors, and to enable a constructive investigation of the *causes* of being. The pseudo-Platonic *Definitions* say that wisdom is ‘knowledge of the things which are eternally; knowledge contemplating the cause of the things that are’.¹ Aristotle agrees, and adds that it will be knowledge contemplating the causes of the things that are *qua things-that-are*—causes, to the things that are, of the fact that they are. His reason, apparently, is that since wisdom is knowledge of ‘the principles and the highest causes’ (*τὰς ἀρχὰς καὶ τὰς ἀκροτάτας αἰτίας*; *Metaph. Γ*. 1, 1003^a26–7), these will be causes of the most widely extended attributes, namely being and its *per se* attributes such as unity. But we will not be able to make progress toward such a science unless we first distinguish the different senses of the effect we are supposed to be investigating, namely being. As Aristotle says in criticizing Plato in *A*. 9,

ὅλως τε τὸ τῶν ὄντων ζητεῖν στοιχεῖα μὴ διελόντας, πολλαχῶς λεγομένων, ἀδύνατον εὑρεῖν, ἄλλως τε καὶ τοῦτον τὸν τρόπον ζητοῦντας ἐξ οἷων ἐστὶ στοιχεῖων. ἐκ τίνων γὰρ τὸ ποιεῖν ἢ πάσχειν ἢ τὸ εὐθύ, οὐκ ἔστι δήπου λαβεῖν, ἀλλ’ εἶπερ,

¹ 414 B 5–6: ἐπιστήμη τῶν αἰεὶ ὄντων· ἐπιστήμη θεωρητικὴ τῆς τῶν ὄντων αἰτίας. I use W. Jaeger’s OCT as my edition of reference of the *Metaphysics* (id. (ed.), *Aristotelis Metaphysica*, Oxford, 1957), but I discuss textual issues as they arise. Outside of the *Metaphysics* I use OCT editions and Diels-Kranz, except that for the *De Anima* I use K. Corcilius (ed. and trans.), *Aristoteles Über die Seele/De anima* (Hamburg, 2017); for *On Generation and Corruption*, M. Rashed (ed. and trans.), *Aristote, De la génération et la corruption* (Paris, 2005), and for the fragments of Aristotle’s *Protrepticus* I. Düring, *Aristotle’s Protrepticus: An Attempt at Reconstruction* (Göteborg, 1961). All translations are my own, except that I cite Richard Robinson’s translation of Jaeger’s *Aristotle*, as noted below.

τῶν οὐσιῶν μόνον ἐνδέχεται ὥστε τὸ τῶν ὄντων ἀπάντων τὰ στοιχεῖα ἢ ζητεῖν ἢ οἶσθαι ἔχειν οὐκ ἀληθές. (992^b18–24)

if we seek the elements of beings without distinguishing, although [beings] are said in many ways, it is impossible to find [their elements], especially if we seek in this way, [by asking] out of what kinds of elements they are [composed]: for it is not possible to grasp what things acting or being acted on or the straight are [composed] out of, but, if at all, only for substances: so it is not right either to seek the elements of all beings or to think that one has found them.

Aristotle himself thinks that wisdom can discover numerically single causes of all beings: these will not be common *elements* of all beings (where elements are causes present within the thing and jointly constituting it, like the matter and the form and the parts of the definition), but rather extrinsic causes. But still it seems clear that if we are looking for any kind of common cause of all beings, we will have to start by investigating the different ways in which things are said to be.

However, it is surprisingly difficult to give a clear statement of Aristotle's own view about how many senses of being there are and how they are related. Partly this is because in most places Aristotle does not lay out a full theory of the senses of being, but draws only as many distinctions as he needs for a particular argument; and it is not always easy to see how the different distinctions are supposed to fit together. But there is one text, *Metaphysics* Δ. 7, which promises to lay out the full scheme of all the senses of being. Furthermore, Δ. 7 seems to play a key role in the overall argument structure of the *Metaphysics*. From *A.* 9 and *Γ.* 1–2 we might have thought that the main problem, for someone trying to establish a science of the causes of being, came from the many senses of being corresponding to the different categories. But when Aristotle turns in Δ. 7 to describe the different ways in which being is said, he gives us something more complicated. Δ. 7 starts by saying that 'being is said on the one hand *per accidens*, on the other hand *per se*' (τὸ ὄν λέγεται τὸ μὲν κατὰ συμβεβηκὸς τὸ δὲ καθ' αὐτό, 1017^a7–8), where 'however many things are signified by the figures of predication [i.e. the categories] are said to be *per se*' (καθ' αὐτὰ δὲ εἶναι λέγεται ὅσαπερ σημαίνει τὰ σχήματα τῆς κατηγορίας, 1017^a22–3); but then 'also "is" and "to be" signify that it is true, "not to be" that it is not true but false' (τὸ εἶναι σημαίνει καὶ τὸ ἔστιν ὅτι ἀληθές, τὸ δὲ μὴ εἶναι ὅτι οὐκ ἀληθές ἀλλὰ ψεῦδος, 1017^a31–2), and 'being also signifies

what *is*, on the one hand potentially, on the other hand actually, [any] of these aforementioned [kinds of being]’ (τὸ εἶναι σημαίνει καὶ τὸ ὄν τὸ μὲν δυνάμει, τὸ δ’ ἐντελεχείᾳ τῶν εἰρημένων τούτων, 1017^a35–b²). This division into four ways in which being is said then seems to govern the overall argument structure of the next four books, *EZHΘ*. *E. 1* says that we are seeking a knowledge of the principles and causes of beings *qua* being, where these principles must be eternal and separate (not abstractions or attributes of something else), and where, if there is to be a first philosophy beyond physics, these principles must also be eternally unchanging, thus must be something apart from the natural things. So presumably the problem is to discover whether, among the causes of the familiar things, there are such eternally unchanging principles; and since we are looking for the principles as causes of being, and since being is said in many ways, presumably we must examine each sense of being in turn and see whether its causes include anything separate and eternally unchanging. Pursuing this programme, *E. 2* starts by recalling the four senses of being from *Δ. 7*. Then *E. 2–3* examine being *per accidens*, concluding that it has no causes which can be known by any science, and *E. 4* examines being as truth, summing up the results of both investigations by saying

τὸ μὲν ὡς συμβεβηκὸς καὶ τὸ ὡς ἀληθές ὄν ἀφετόν—τὸ γὰρ αὔτιον τοῦ μὲν ἀόριστον τοῦ δὲ τῆς διανοίας τι πάθος, καὶ ἀμφοτέρω περὶ τὸ λοιπὸν γένος τοῦ ὄντος, καὶ οὐκ ἕξω δηλοῦσιν οὐδὲν τινα φύσιν τοῦ ὄντος—διὸ ταῦτα μὲν ἀφείσθω, σκεπτόν δὲ τοῦ ὄντος αὐτοῦ τὰ αἴτια καὶ τὰς ἀρχὰς ἧ ὄν. (1027^b33–1028^a4)

let what is *per accidens* and what is as true be dismissed—for the cause of the former is indeterminate and of the latter is some affection of thought, and both of them concern the remaining kind of being, and do not indicate that there is any further nature of being—so let these be dismissed, and let us investigate the causes and principles of being itself *qua* being.

Z, beginning with an explicit reference back to *Δ. 7*—‘being is said in many ways, as we distinguished before in the [discussion] about how many ways [something is said]’²—examines the senses of being divided according to the categories; *Z. 1* argues that things in the other categories are posterior to substances or *ousiai*, and so the rest of *ZH* just investigate being as *ousia* (*H. 1* says that ‘we are

² 1028^a10–11: τὸ ὄν λέγεται πολλαχῶς, καθάπερ διειλόμεθα πρότερον ἐν τοῖς περὶ τοῦ ποσαχῶς.

seeking the causes and principles and elements of *ousiai*’; τῶν οὐσιῶν ζητεῖται τὰ αἴτια καὶ αἱ ἀρχαὶ καὶ τὰ στοιχεῖα, 1042^a5–6). Then *Θ. 1* says that we have now spoken about *ousia*, but that since being is said not only according to the categories, but also according to potentiality and actuality, we should now talk about potentiality and actuality, which Aristotle does in *Θ. 1–9*. Finally, *Θ. 10* says that ‘since being and not-being are said, in one way according to the figures of predication, in another way according to the potentiality or actuality of these or their contraries, but [being and not-being mean] in the strictest sense whether it is true or false’,³ we should investigate being as truth; and, where *E. 4* had examined the truth of complexes or propositions, *Θ. 10* looks particularly at truth as said of simples. Thus the fourfold division of senses of being in *Δ. 7* seems to provide the main structuring principle for *EZHΘ*, which Aristotle returns to at each major turn in the argument.

The status of *Δ* in the *Metaphysics* has, of course, been questioned. Bonitz and, following him, Jaeger and Ross thought that Aristotle did intend a single great treatise on first philosophy, even if he never finished it to his satisfaction, but that his intended treatise was something like *ABΓEZHΘIMN*, and that *αΔΚΛ*, although really by Aristotle, were not intended by him as parts of the great treatise on first philosophy, and were added to it by Peripatetic editors.⁴ This is perfectly compatible with Aristotle referring to *Δ*,

³ 1051^a34–b²: ἐπεὶ δὲ τὸ ὄν λέγεται καὶ τὸ μὴ ὄν τὸ μὲν κατὰ τὰ σχήματα τῶν κατηγοριῶν, τὸ δὲ κατὰ δύναμιν ἢ ἐνέργειαν τούτων ἢ τάναντία, τὸ δὲ κυριώτατα εἰ ἀληθές ἢ ψεῦδος, in the last clause reading εἰ with EJ rather than ὄν with A^b and all recent editors.

⁴ For H. Bonitz, see his whole introduction to his commentary (id., *Aristotelis Metaphysica* (Bonn, 1848–9), 2 vols., at ii. 3–35). He gives a statement of his main conclusions ii. 27: *ABΓEZHΘ* are intended as a continuous series, and Aristotle also intended to incorporate Iota and *MN* into the same treatise (disputatio), but it is not clear where they would go; the other four books, for different reasons, are not intended as parts of the same treatise. Bonitz argues specifically against *Δ* being an intended part of the *Metaphysics* at ii. 18–20, which I discuss in the Appendix to this paper. (Bonitz is, as he says ii. 10, largely following the fundamental article of C. A. Brandis, ‘Über die Aristotelische Metaphysik (Erste Hälfte)’, *Abhandlungen der Königl. Akademie der Wissenschaften* [Berlin], 1834, Historische-Philologische Klasse, 63–87, which takes *Metaphysics B* as its guiding thread and asks where Aristotle responds to the different *aporai*. The main difference is that Brandis thought *Δ* was part of the intended *Metaphysics*; Bonitz denies this, and also has some doubts about the authenticity of *α*.) W. Jaeger in his *Studien zur Entstehungsgeschichte der Metaphysik des Aristoteles* [*Entstehungsgeschichte*] (Berlin, 1912), responding directly to Bonitz, replaces the picture of a ‘main series’ (*Hauptreihe*) *ABΓEZHΘ* with other books more loosely attached (90), with a ‘main lecture course’ (*Hauptvorlesung*) *ABΓEIMN* (109–11), and proposed that Aristotle’s disciples after his death had inserted *ZHΘ* after *E*

and specifically to Δ . 7, at crucial moments in the *Metaphysics*. But it has also been proposed that at least some of these references are post-Aristotelian insertions (see e.g. Jaeger's OCT apparatus at 1028^a10–11 and 1052^a15–16) and, more radically, that Θ . 1 in particular misdescribes the nature of the transition from H to Θ —that although Θ . 1 represents itself as continuing a systematic examination of the senses of being distinguished in Δ . 7, turning in due order from being as said of the categories (and chiefly of *ousia*) to being as actuality and potentiality, in fact Θ directly continues ZH 's consideration of *ousia*, and specifically H 's interpretation of form as actuality. Now in my book-manuscript I discussed the arguments about Δ (collected in the Appendix to this paper), and concluded that Aristotle did intend Δ as part of the *Metaphysics*, in its present place between Γ and E . Γ . 1 calls for an investigation of the principles, causes, and elements of being *qua* being and of its *per se* attributes, where these attributes will be things like unity, plurality, sameness, otherness, difference and contrariety. But being is said in many ways, and so are unity and so on, and so are principle, cause, and element; so to investigate the causes of being and its attributes, we need to start by distinguishing the ways in which being, cause, and so on, are said. Γ . 2 calls for such an investigation of the many senses of each of these terms: 'after dividing in how many ways each [of the attributes of being] is said, we must answer in relation to the first thing in each predication [i.e. the first signification of each attribute] how [the other significations of that attribute] are said in relation to it: for some things will be said through having it, others through producing it, and others through other such figures'.⁵

(111), with the other books added even later. He argues specifically that Δ was not an intended part of the *Metaphysics* at 118–21: see my Appendix. W. Jaeger in his later *Aristoteles: Grundlegung einer Geschichte seiner Entwicklung* [*Aristoteles*] (Berlin, 1923), which I cite in the English translation id., *Aristotle: Fundamentals of the History of his Development* [English trans.], trans. by R. Robinson (Oxford, 1934), besides developing more complicated stories about the origins of K and of MN , concludes that while Aristotle did not write $ZH\Theta$ as part of the same project with the other books, it was Aristotle himself, not later editors, who afterwards inserted them after E (*Aristoteles*, 196–209 = English trans., 202–17). W. D. Ross discusses the 'connected treatises' at Aristotle's *Metaphysics*, A Revised Text with Introduction and Commentary (Oxford, 1924), 2 vols., i. xv–xxiv ('It seems, then, that $AB\Gamma EZH\Theta MN$ form a more or less continuous work', i. xxiii), and the 'outlying books' $\alpha\Delta\kappa\lambda$ at i. xxiv–xxix, with the briefest and most superficial discussion of Δ , i. xxv.

⁵ 1004^a28–31: ὥστε διελόμενον ποσαχῶς λέγεται ἕκαστον, οὕτως ἀποδοτέον πρὸς τὸ πρῶτον ἐν ἐκάστη κατηγορίᾳ πῶς ἐκείνο λέγεται· τὰ μὲν γὰρ τῷ ἔχειν ἐκείνο τὰ δὲ τῷ ποιεῖν τὰ δὲ κατ' ἄλλους λεχθήσεται τοιούτους τρόπους.

Here Aristotle says that we must carry out this investigation for ‘one’, ‘same’, ‘other’, and ‘contrary’ (1004^a25–8); a similar passage at the end of *Γ*. 2, 1005^a2–18, gives a fuller list of terms to investigate, ‘contrary or perfect or one or being or same or other’ (τὸ ἐναντίον ἢ τῆλειον ἢ ἓν ἢ ὄν ἢ ταῦτόν ἢ ἕτερον, 1005^a12) and ‘prior and posterior, genus and species, whole and part and others of this kind’ (περὶ προτέρου καὶ ὑστέρου, καὶ γένους καὶ εἶδους, καὶ ὅλου καὶ μέρους καὶ τῶν ἄλλων τῶν ποιούτων, 1005^a16–18). This looks very much like a programme for *Δ*, which discusses ‘one’ in *Δ*. 6, ‘being’ in *Δ*. 7 (and ‘power’ or ‘potentiality’ (δύναμις) in *Δ*. 12 and four of the categories in *Δ*. 8, 13–15), ‘same’ and ‘other’ in *Δ*. 9, ‘contrary’ in *Δ*. 10, ‘prior’ and ‘posterior’ in *Δ*. 11, ‘perfect’ in *Δ*. 16, ‘part’ and ‘whole’ in *Δ*. 25–6, and ‘genus’ in *Δ*. 28.⁶ Also *Δ*. 1–3, on the different senses of

⁶ It seems to be widely thought that these texts are not really looking forward to *Δ*, but I have not seen any serious reason given. Jaeger says, against Alexander, that *Γ*. 2, 1004^a28–31 ‘contains nothing but a general methodological maxim’ (nichts als eine allgemeine methodische Maxime enthält) and is not an announcement of *Δ* (*Entstehungsgeschichte*, 120): Aristotle would merely be saying that whenever we distinguish the senses of a term we should also say how they are related to a primary sense, and the passage would be related to *Δ* only inasmuch as it would have given some Peripatetic the idea of inserting *Δ* in its present place. But Jaeger is able to make this sound plausible only by leaving out of his citation the last clause, ‘for some things will be said through having it, others through producing it, and others through other such figures’ (τὰ μὲν γὰρ τῷ ἔχειν ἐκείνο τὰ δὲ τῷ ποιεῖν τὰ δὲ κατ’ ἄλλους λεχθήσεται ποιούτους τρόπους, 1004^a30–1): for if Aristotle has a ‘general methodological maxim’ to cite these relations of having and producing and so on, he observes it only in *Δ* (and at *Iota* 4, 1055^a35–8, which recapitulates *Δ*. 10, 1018^a31–5 almost verbatim). Jaeger says nothing about the heavy overlap between the terms listed in our two *Γ* passages and in *Δ*.

Bonitz, strangely, denies that *Γ*. 2, 1004^a28–31 looks forward to *Δ* on the ground that *Δ* does *not* follow this ‘methodological maxim’: he thinks that *Δ* only ‘enumerates the various uses of terms’ and does not ‘discuss the concepts themselves, what force they have and how they are related to each other’ or ‘determine what is the proper and primary concept of each of the terms’. To give the quotation more fully: Bonitz is arguing against Alexander, who cites what is apparently *Γ*. 2, 1004^a28–31 as giving the programme for *Δ*. Bonitz says ‘But it is easy to see how far Alexander and those who have followed him have misused the words of Aristotle from which this reasoning is drawn: for there, at *Γ*. 2, 1004^a28 (for Alexander seems to have written ἐν τῷ δευτέρῳ [“in the second book”] by mistake), ὥστε διελεγμένον ποσῶς λέγεται ἕκαστον [“so after having distinguished in how many ways each of these is said”] etc., Aristotle shows why the discussion of unity, difference, contrariety and other such concepts, although they are taken in many ways, nonetheless belongs to the knowledge of being; but he is far from saying that we should first enumerate the various uses of terms, which is what he has done in this book [i.e. *Δ*], and [only] afterwards discuss the concepts themselves, what force they have and how they are related to each other.’ (ii. 19–20: Sed quantopere iis verbis Aristotelis, ex quibus haec repetita est ratiocinatio, et Alexander abutatur et quocunque eum secuti sunt, facile est

'principle', 'cause' and 'element', seems like an obvious preliminary to the project announced in *Γ. 1*, of a study of the principles, causes and elements of being and its attributes: unless we distinguish the different kinds of cause, we will not be able to distinguish the different causal chains, so as to discern which of them lead up to separate eternally unchanging principles and which do not; and unless we distinguish elements as constituent principles from principles in general (which is the main lesson of *Δ. 1* and *Δ. 3*), we will not discover that we need to look for principles of all beings which are not elements of all beings. More or less plausible justifications can be given for all the other chapters.⁷ *Δ*, like the rest of the *Metaphysics*, is a work in progress, and Aristotle surely kept adding new terms to *Δ* as they occurred to him; I am not suggesting that none of its chapters could have been omitted, or that others could not have been usefully added. But *Γ. 2* is calling for something like *Δ*, and something like *Δ* is repeatedly presupposed in the books after *Δ*, which often draw on distinctions from *Δ* at crucial points in the argument,⁸ including the explicit references at *Z. 1*,

videre; illic enim *Γ. 2*, 1004^a28 (per errorem enim Alexander videtur scripsisse ἐν τῷ δευτέρῳ): ὥστε διειλούμενον ποσαχῶς λέγεται ἕκαστον κτλ. Aristoteles comprobat cur disputatio de unitate, diversitate, contrarietate aliusque similibus notionibus, quamquam multifariam usurpantur, tamen entis ad cognitionem pertineat; sed minime hoc dicit, enumerandum primum esse varium vocabulorum usum, id quod hoc libro fecit, deinde de ipsis notionibus, quid valeant quibus inter se rationibus cohaereant disputandum esse). Earlier on at ii. 19 Bonitz says of *Δ* that 'This kind of description, since it neither belongs to the investigation itself, nor determines what is the proper and primary concept of each of the terms, should be prefixed to the discussion [i.e. to the whole *Metaphysics*], not inserted within it' (eiusmodi . . . descriptio, quoniam nec pertinet ad ipsam quaestionem, nec quae sit propria ac primaria vocabulorum singulorum notio decernit, praemitti debet disputationi, non interponi).

⁷ See my *The Aim and the Argument of Aristotle's Metaphysics*, I71b (draft available on my website at the HU-Berlin, <https://www.philosophie.hu-berlin.de/de/lehrbereiche/antike/mitarbeiter/menn/contents>).

⁸ A reasonable list of passages in the *Metaphysics* turning on some definition or distinction from *Δ* would be:

<i>Δ. 3</i>	'element'	<i>Z. 17, A. 4</i>
<i>Δ. 4</i> ,	'nature'	<i>Z. 7, E. 1</i>
<i>Δ. 5</i> ,	'necessary'	<i>E. 2, A. 7</i>
<i>Δ. 6</i>	'one'	Iota 1–2
<i>Δ. 7</i>	'being'	<i>E. 2, E. 4, Z. 1, Θ. 1, Θ. 10, N. 2</i>
<i>Δ. 8</i>	'ousia'	<i>Z. 2, Z. 3</i>
<i>Δ. 9</i>	'same'	<i>Z. 6, Iota 3; 'other', 'different', 'similar' Iota 3–4</i>
<i>Δ. 10</i>	'opposite', 'contrary'	Iota 4
<i>Δ. 10</i>	'other in species'	Iota 8 (flagged by the γάρ at 1058 ^a 17; Bonitz-Ross-Jaeger wrongly print A ^b 's ἄρα)

1028^a10–11⁹ and Iota 1, 1052^a15–16 to what was said before ‘in the [discussion] of how many ways [in which something is said]’ (ἐν τοῖς περὶ τοῦ ποσαχῶς, cited above). Δ does not seem to be used in earlier books of the *Metaphysics* or in other works. Δ is not a general ‘philosophical lexicon’, since it contains no ethical terms, and no physical terms except ‘nature’ itself and, if you like, ‘power’ or ‘potentiality’ (δύναμις). Δ has a significant overlap in the list of terms it discusses with the *Categories* including the *Postpraedicamenta*, but is marked as specifically philosophical by its use of causal concepts, including matter and form, in distinguishing the different senses of the various terms, whereas the *Categories* strictly abstains from such causal concepts, and I have argued that it belongs not to philosophy but to dialectic and is intended as an auxiliary to the *Topics*.¹⁰

Δ . 11	‘prior’	Z. 1, Θ . 8
Δ . 12	‘power [δύναμις]’	Θ . 1–2
Δ . 15	‘relative [πρὸς τι]’	Iota 6
Δ . 16	‘perfect/complete’	Iota 4
Δ . 18	‘per se’	Z. 4
Δ . 22	‘privation’	Iota 4
Δ . 25	‘part’	Z. 10
Δ . 28	‘genus’	Iota 3, Iota 8
Δ . 29	‘false’	E. 4, Θ . 10
Δ . 30	‘accident’	E. 2–3

Some of these apparent uses of Δ in later books are disputable, but the general picture, I think, is not. It is clear that the closest relation is between Δ and Iota, but Δ is important for other books as well (especially E, Z, Θ): apart from the use of Δ . 7 in structuring the overall argument of *EZH Θ* , distinctions from Δ are drawn on at particularly crucial moments to solve some *aporia*, notably the distinctions between senses of ‘part’ in Z. 10 (in a passage that stays very close to Δ . 25), between principle and element in Z. 17, and between senses of ‘prior’ in Θ . 8.

⁹ And/or E. 4, 1028^a4–6 if authentic.

¹⁰ See my ‘Metaphysics, Dialectic, and the *Categories*’, *Revue de Métaphysique et de Morale*, 100 (1995), 311–37. While I will build on what I said (rather quickly) about Δ in that paper, I will not be trying in the present paper to make a case about Δ in general: I am trying specifically to interpret Δ . 7 (which the earlier paper mentioned only once in passing). And I am not interested in the present paper in contrasting Δ . 7 with the *Categories*, as the earlier paper did try to contrast Δ in general with the *Categories* (while also noting what they have in common): since the *Categories* never discusses different senses of being, there would not be much to compare and contrast with Δ . 7. But, to briefly repeat some points about the contrast between Δ and the *Categories* on the use of causal concepts: the *Categories* never mentions matter, it uses *eidōs* to mean species but says nothing either about Platonic Forms or about immanent Aristotelian forms as causes, and says nothing about efficient or final causes, mentioning ‘causes’ only in the discussion of priority at *Categories* 12, 14^b9–23 (and resumptions at 13, 14^b27–32 and 15^a8–12), where ‘the object seems to be somehow the cause of the statement’s being true’ (τὸ μέντοι πρᾶγμα φαίνεται πως αἴτιον τοῦ εἶναι ἀληθῆ τὸν λόγον, 14^b19–20). But Δ begins with chapters on principle, cause (covering the four standard

However, the issue of whether Aristotle intended Δ as part of the *Metaphysics* may not be so important for whether Δ . 7 can help us in understanding the argument of the *Metaphysics*. Even if the references to Δ are to an independent treatise, the references, if really by Aristotle, show that he thought it would help his readers to follow his argument in the *Metaphysics*; and the references to Δ . 7, in particular, are crucial for the way he structures the argument of *EZHΘ*. Indeed, even if we believed that the references to Δ were added by later editors (and I think there is not the slightest reason to believe it), we would still have no alternative but to turn to Δ to explicate the distinctions that Aristotle is presupposing, and in particular the distinctions between different senses of being. Jaeger had said that, if *Z* had been written continuously after *E*, then in *Z*. 1 ‘either Aristotle would have referred his readers to the full and detailed account of the meanings of “being” given [in *E*. 2], or he would not have enumerated these meanings at all, because everyone would have them in mind’.¹¹ But this is badly mistaken: in fact *E*. 2’s ‘full and detailed account’ is a bare listing without definitions or examples of the different senses, just over six Bekker lines (contrast thirty-eight for Δ . 7), which would be unintelligible without the fuller account of Δ . 7 or something like it. And we have nothing else like it: apart from the full or partial (but always bare-bones) listings in *E*. 2, *E*. 4, Θ . 1, and Θ . 10, Aristotle nowhere else gives the full scheme of the four ways in which being

Aristotelian causes), element, nature and necessity. Δ . 8 gives as one sense of *ousia* ‘whatever is a cause of being, present in such things as are not said of a subject, as the soul [is the cause of being] to an animal’ (δ $\acute{\alpha}\nu$ η $\acute{\alpha}\iota\tau\iota\omicron\nu$ $\tau\omicron\upsilon$ $\acute{\epsilon}\nu\alpha\iota$, $\acute{\epsilon}\nu\upsilon\pi\acute{\alpha}\rho\chi\omicron\nu$ $\acute{\epsilon}\nu$ $\tau\omicron\iota\varsigma$ $\tau\omicron\iota\omicron\upsilon\tau\omicron\iota\varsigma$ $\acute{\omicron}\sigma\alpha$ $\mu\eta$ $\lambda\acute{\epsilon}\gamma\epsilon\tau\alpha\iota$ $\kappa\alpha\theta’$ $\acute{\upsilon}\pi\omicron\kappa\epsilon\iota\mu\acute{\epsilon}\nu\omicron\nu$, $\acute{\omicron}\iota\omicron\nu$ η $\psi\upsilon\chi\eta$ $\tau\acute{\omega}$ $\zeta\acute{\omega}\omega$, 1017^b15–16), and in general is interested in two-place senses of *ousia* when the *Categories* is not. Δ . 12’s account of powers (*δυνάμεις*) is largely causal—powers (Δ . 12) and natures (Δ . 4) are two contrasting kinds of principle of motion—where the account in *Categories* 8, 9^a14–27 is not, and *Categories* 14 discusses motion only as an attribute of the thing in motion, with no mention of a moving cause. The senses of ‘according to which’ ($\kappa\alpha\theta’$ δ) in Δ . 18 follow the different senses of cause, and the senses of ‘out of which’ ($\xi\acute{\xi}$ $\acute{\omicron}\delta$, Δ . 24) and ‘part’ ($\mu\acute{\epsilon}\rho\omicron\varsigma$, Δ . 25) turn on matter and form; Δ . 28’s account of genus talks about genera taken from the generator or from the matter, which the *Categories*’ account does not. Δ . 30 says ‘nor does accident have any determinate cause, but rather what chances, and this is indeterminate’ ($\omicron\upsilon\delta\delta\acute{\epsilon}$ $\delta\eta$ $\acute{\alpha}\iota\tau\iota\omicron\nu$ $\acute{\omega}\rho\iota\sigma\mu\acute{\epsilon}\nu\omicron\nu$ $\omicron\upsilon\delta\delta\acute{\epsilon}\nu$ $\tau\omicron\upsilon$ $\sigma\upsilon\mu\beta\epsilon\beta\eta\kappa\omicron\tau\omicron\varsigma$ $\acute{\alpha}\lambda\lambda\acute{\alpha}$ $\tau\omicron$ $\tau\upsilon\chi\acute{\omicron}\nu$ $\tau\omicron\upsilon\tau\omicron$ $\delta’$ $\acute{\alpha}\omicron\rho\iota\sigma\tau\omicron\nu$, 1025a24–5).

¹¹ ‘wäre *E*. 2 schon vorangegangen, als Aristoteles diesen Anfang des Substanzbuches niederschrieb, so hätte er sich entweder auf die dort ausführlich entwickelten verschiedenen Bedeutungen des Seienden berufen oder er hätte überhaupt keine neue Aufzählung gegeben, da jeder sie ja im Gedächtnis hätte’ (Jaeger, *Aristoteles*, 210 = English trans., 203).

is said, but only discusses, say, the relation of the different categorial senses of being to each other, or the relation of being-as-potentiality and being-as-actuality to each other.

The real obstacles that have prevented people from making use of $\Delta. 7$ in interpreting the *Metaphysics* do not arise from scruples about the status of Δ , or from any other alternative keys to Aristotle's scheme of the many senses of being, but from the frustrations of trying to make sense of $\Delta. 7$. It is probably these frustrations that have led some scholars to think that $\Delta. 7$ is not really (as it seems to be in the transmitted *Metaphysics*) the foundation of the investigation into the causes of being in *EZHΘ*, but merely an assemblage of different ways in which the term 'being' or the verb 'to be' are used, used either by Aristotle himself or by other people: $\Delta. 7$ would be then a kind of reflection on texts like *EZHΘ*, an explanation of how Aristotle is using the terminology, rather than a theoretical foundation for these texts. Sometimes one hears it said of all of Δ that it is just an empirical collection of the different ways in which people were in fact using these terms. Now in fact I think that every chapter of Δ has an overriding philosophical purpose (and that it would be extremely dangerous to rely on them as a neutral guide to how people actually used these Greek words), although sometimes the purpose becomes clear only when we see how Aristotle uses the conceptual determinations and distinctions of Δ later in the *Metaphysics*.¹² And even if extracting the overall philosophical point of $\Delta. 7$ is not easy, ignoring or suppressing the text will not be any improvement, since we will still have to make sense of the overall structure of *EZHΘ*, and of the structuring passages on the senses of being that Aristotle posts at crucial turns in the argument; $\Delta. 7$, read in the context of the developing argument of the *Metaphysics*, is our best hope.

2. How the different distinctions relate, and distinctions that are not drawn

So let me start by saying something briefly about the frustrations of $\Delta. 7$, then say programmatically what I mean by trying to make

¹² For discussion of the aims and methods of some sample chapters of Δ , see *The Aim and the Argument*, I₇1b.

sense of Δ . 7, in the context of the developing argument of the *Metaphysics*, then settle down to interpreting the text, starting from Δ . 7's account of the senses of 'being *per se*'. I will try to point to some payoffs of this analysis of Δ . 7 for understanding the larger argument of the *Metaphysics*, but my main goal in this paper is just to make sense of Δ . 7, using its function in the *Metaphysics* as a clue.

One obvious frustration is that Δ . 7 never explicitly says how its four main ways in which being is said are related to each other: it gives first an account of being *per accidens* (1017^a7–22), then of 'being' *per se*, which is said in as many ways as the categories (1017^a22–30); then the words for being *also* signify the true (1017^a31–2), and *also* what is potentially or actually any of these things (1017^a32–^b9). It is never said that the term is transferred or metaphorically extended from one sense to another, and there is no attempt at the end of the chapter to reduce the many senses to one or a few primary senses, as is done in many chapters of Δ . The only explicit effort to connect the four sections is the initial 'being is said either *per accidens* or *per se*' (τὸ ὄν λέγεται τὸ μὲν κατὰ συμβεβηκὸς τὸ δὲ καθ' αὐτό, 1017^a7–8), opening into a long explication of the *per accidens* uses, full of digressions and needing to be summarized at 1017^a19–22 before finally passing to the *per se* uses at 1017^a22 (marked by a μὲν οὖν... δέ transition). This is clearly in some way modelled on the procedure of Δ . 6, which begins 'one is said either *per accidens* or *per se*' (ἓν λέγεται τὸ μὲν κατὰ συμβεβηκὸς τὸ δὲ καθ' αὐτό, 1015^b16–17), describing the *per accidens* senses in 1015^b17–36 and then turning to the *per se* senses. Presumably in both chapters the plan is to get the *per accidens* senses out of the way first, to show how they are parasitic on the *per se* senses, so that by peeling away the *per accidens* senses we can strip the extension of the term down to its core, the easier to grasp the unifying concept that applies to all the *per se* uses of the term. That would make good sense for Δ . 7 if it contained only the first two sections—although the 'core' is not what we might expect, since Δ . 7, 1017^a22–30 says that both substances and accidents are beings *per se*, while *Posterior Analytics* 1. 4, 73^b5–10 says that substances are beings *per se* and accidents are not. But, having read what seem like comprehensive accounts of the *per accidens* and *per se* senses of a term, it is disconcerting to learn that the term also has other senses—surely the division into *per accidens* and *per se* should be exhaustive. Or perhaps the true

and the potential and the actual are *also per se* senses of being: ‘however many things are signified by the figures of predication are said to be *per se*’ (καθ’ αὐτὰ δὲ εἶναι λέγεται ὅσαπερ σημαίνει τὰ σχήματα τῆς κατηγορίας, 1017^a22–3) and some other things are *also* said to be *per se*. But it seems rather that everything which is said to be *per se* is said to be in one of the categorial senses, and that it is *also* said to be either potentially or actually: we would then have not 10 categorial senses + 2 modal senses but 10 categorial senses × 2 modal senses, yielding a grid of 20 senses of being. (So categorial and modal being are not so much two senses of being, each with subsenses, as two dimensions along which the senses of being can be distinguished.) Aristotle seems to imply this when he says ‘being also signifies what *is*, on the one hand potentially, on the other hand actually, [any] of these aforementioned [kinds of being]’, and indeed he goes on to argue that we can say ‘*X* is’ when *X* is potentially, not only for various kinds of accidents but ‘also for substances’ (καὶ ἐπὶ τῶν οὐσιῶν, 1017^b6). Unfortunately, this is no help for how being as truth is related to the other senses: we can say ‘not 10 + 2, 10 × 2’, but we can’t say ‘not 10 + 2 + 1, 10 × 2 × 1’. It is also discouraging that Aristotle gives ‘the man is musical’ (εἶναι ... τὸν ἄνθρωπον μουσικόν, 1017^a9) as an example of being *per accidens*, ‘the man is healthy’ (ἄνθρωπος ὑγιαίνων ἐστίν, 1017^a28) as an example of being *per se*, and ‘Socrates is musical’ (ἔστι Σωκράτης μουσικός, 1017^a33) as an example of being as truth. Maybe the same sentence could signify different senses of being in different utterance contexts, or maybe it can signify a single sense which can be located on several dimensions at once, but the examples are supposed to help us distinguish the different senses, and they are not helping much.

There are further frustrations arising from distinctions that Aristotle does *not* draw in this chapter. A philosopher nowadays trying to sketch the many senses of the verb ‘to be’ might start by distinguishing existence (‘there *is* an *F*’, symbolically expressed as ‘ $\exists x Fx$ ’), predication (‘*a* is *F*’, ‘*Fa*’), identity (‘*a* is *b*’, ‘*a* = *b*’), and class-inclusion (‘*Fs* are *Gs*’, ‘ $\forall x Fx \rightarrow Gx$ ’), perhaps also e.g. an ‘is’ of constitution, and only then start subdividing the meanings of these; but Aristotle in Δ . 7 ignores what we would think of as these larger divisions of senses of being. Perhaps it is too much to expect him to recognize that assertions of identity and class-inclusion are not special cases of predication. Nowadays we say that a predicative assertion ‘*a* is *F*’ connects a constant-term (Eigenname) with a

predicate-term or (1-place) relation-term (Begriffswort), whereas an assertion of identity connects two constant-terms and an assertion of class-inclusion connects two predicate-terms, but Aristotle does not have the distinction between constant and predicate terms and so will not recognize this difference of logical form. Similarly we cannot expect him to say that existence is a second-order predicate, i.e. that in '*F* exists', 'there is an *F*', the term '*F*' is a predicate-term rather than a constant-term. But the difference between the 1-place assertion '*S* is', '*S* exists' and the 2-place judgement '*S* is *P*' just seems obvious, with no need of modern logical theory, and this too is not among the distinctions Aristotle draws in Δ. 7. The large majority of the examples that he gives in Δ. 7 are of 2-place being, plus the 'locative' assertion 'we say that Hermes [or: a herm] is in the stone' (Ἐρμῆν ἐν τῷ λίθῳ φημὲν εἶναι, 1017^b7), however we classify that, under being-as-potentiality; but the immediately following example 'the half of the line [is]' (τὸ ἥμισυ τῆς γραμμῆς, 1017^b7–8) seems to be 1-place being, and likewise under being *per accidens*, 'in this way even the not-white is said to be, because what it belongs to is' (οὕτω δὲ λέγεται καὶ τὸ μὴ λευκὸν εἶναι, ὅτι ᾧ συμβέβηκεν, ἐκείνο ἔστιν, 1017^a18–19).¹³ For some reason

¹³ There is an important textual issue at 1017^a18–19. I am translating the text of A^b, printed by Bekker, Bonitz, Christ, Ross, and Jaeger: this or something close to it is presupposed by Alexander 371. 14–17. But EJ have οὕτω δὲ λέγεται καὶ τὸ λευκὸν εἶναι ('in this way too the white is said to be'), and this is defended and translated by Richard Bodéüs and Annick Stevens (trans. and comm.), *Aristote, Métaphysique, Livre Delta* (Paris, 2014), 41. Aristotle would certainly agree to this both about the white and about the not-white, but as Bodéüs-Stevens point out the likely implications in context are different. If he is saying 'in this way too the white is said to be', i.e. because that to which it belongs *is*, then since he has already said that the man *is* musical *per accidens* because that to which the musical belongs *is*, the new point he is making here must be that 1-place assertions of being like 'the white *is*' can also hold in one of the modes of being *per accidens* that we have already seen for 2-place assertions of being. By contrast, if he is saying 'in this way even the not-white is said to be', then the stress is on the negative term 'not-white', and he would probably not be paying too much attention to the fact that he has switched from a 2-place assertion 'the man *is* musical' to a 1-place assertion 'the not-white *is*'. I think the reading with 'not-white' is likely to be right: Aristotle might well feel the need to justify the claim that 'the man is musical' expresses being *per accidens*, especially given that he is going to give very similar sentences, with the predicate in one of the 'figures of predication' (which 'is musical' certainly is), as examples of being *per se*. He could justify this by saying that one thing we can mean by 'the man *is* musical' is that that to which the musical belongs (namely the man) *is*, and that this meaning applies equally to 'the man *is* not-white', although 'is not-white' does not fall under any of the figures of predication. But it is also perfectly possible that Bodéüs-Stevens are right in preferring the reading of EJ. If so, Aristotle will here be

Aristotle seems not to think this difference is relevant in distinguishing the main senses of being.

Aristotle's silence here has been frustrating and intriguing, not only to people brought up on Frege and Russell, but also notably to neo-Thomists like Gilson, who in *Being and Some Philosophers* manages never to mention Frege or Russell or their analysis of existence. Thomas in *Summa Theologiae* 1a q. 44 a. 2 distinguishes three successive groups of philosophers: those who recognized only non-substantial changes and their causes; those who also recognized substantial change and its causes, including substantial form and matter, but who considered being only inasmuch as it is *this being* or *such a being*, and so considered only the causes of *being this* or *being such*; and, finally, those who 'raised themselves up to considering being inasmuch as it is being, and considered the cause of things, not inasmuch as they are *these* or *such*, but inasmuch as they are beings'.¹⁴ This third group could thus see, what the first two groups could not, that 'even the primary matter is created by the universal cause of beings' (etiam materiam primam creatam ab universali causa entium): it cannot be *generated*, since generating is adding a form to an already existent matter, and *ex hypothesi* we are talking about the primary matter; so creation, the causing of being rather than of being-this or being-such, must be a further kind of change, to be explained in terms of *esse* and essence rather than of matter and form or substance and accident. (Similarly, although Thomas does not address this here, immaterial substances other than the first cause, the movers of the many heavenly spheres, cannot be generated but are nonetheless created.) Thomas is delicately ambiguous about whether Aristotle belongs to the second or the third group of philosophers, but Gilson is perfectly clear that he belongs to the second, and that he has not grasped *esse* in the sense of existence, the aspect or attribute of the thing that answers the question whether-it-is, as opposed to essence, the aspect or attribute of the thing that answers the question what-it-is. '[N]othing . . . authorizes us to think that actual existence was included in what he called being. Of course, to him, as to us, real things were actually existing

explicitly calling attention to 1-place and 2-place expressions falling under the same sense of being, not just quietly sliding from 2-place to 1-place expressions.

¹⁴ *ST* 1a q. 44 a. 2: et ulterius aliqui exererunt se ad considerandum ens in quantum est ens: et consideraverunt causam rerum, non solum secundum quod sunt haec vel talia, sed secundum quod sunt entia.

things. Aristotle has never stopped to consider existence in itself and then deliberately proceeded to exclude it from being. . . . In fact, everything goes as if, when he speaks of being, he never thought of existence. . . . [T]he *is* of a thing is the *what* of the thing, not the fact that it exists, but that which the thing is and which makes it to be a substance' (*Being and Some Philosophers*, 45–6).¹⁵ And Gilson and others have given explanations for why Aristotle, or more generally the Greek philosophers of his time, could not come through to a distinct conception of existence, of that-a-thing-is, as distinct from essence, what-the-thing-is. If this were true, it might explain his unconcern in Δ . 7 with the distinction between 1-place and 2-place assertions of being, but it is false. *Posterior Analytics* 2 sharply distinguishes the investigation what-it-is from the investigation whether-it-is, 'for instance, if there is or is not a centaur or a god: I mean whether-it-is *simpliciter* or not, not whether it is white or not. And once we know that it is, we investigate what it is, for instance what [a] god is or what [a] man is'.¹⁶ Nonetheless, Δ . 7 ignores this distinction between 1-place ('*simpliciter*') and 2-place senses of 'to be'.¹⁷ Aristotle must think

¹⁵ More from Gilson: 'The primary mistake of Aristotle, as well as of his followers, was to use the verb "to be" in a single meaning, whereas it actually has two. If it means that a thing is, then individuals alone are, and forms are not; if it means *what* a thing is, then forms alone are and individuals are not. The controversy on the being of universals has no other origin than the failure of Aristotle himself to make this fundamental distinction. In his philosophy, as much as in that of Plato, *what* is does not exist, and that which exists, is not' (É. Gilson, *Being and Some Philosophers*, 2nd ed. [*Being*] (Toronto, 1952), 49). 'Thus, the world of Aristotle is made up of existents without existence. They all exist, otherwise they would not be beings; but, since their actual existence has nothing to do with what they are, we can safely describe them as if they did not exist' (50).

¹⁶ *Post An.* 2. 1, 89^b32–5: οἶον εἰ ἔστιν ἢ μὴ ἔστι κένταυρος ἢ θεός· τὸ δ' εἰ ἔστιν ἢ μὴ ἀπλῶς λέγω, ἀλλ' οὐκ εἰ λευκὸς ἢ μὴ. γρόντες δὲ ὅτι ἔστι, τί ἔστι ζητοῦμεν, οἶον τί οὖν ἔστι θεός, ἢ τί ἔστιν ἄνθρωπος. Gilson is naturally aware of *Posterior Analytics* 2, but thinks that for Aristotle, once we have legitimated the science of *X* by establishing the existence of *X*, that existence is then ignored in the content of the science (*Being*, 46).

¹⁷ This contrast between Δ . 7 and *Posterior Analytics* 2 is correctly noted by S. Mansion, *Le jugement d'existence chez Aristote* [*Le jugement d'existence*] (Louvain, 1946), 218 and 243. Mansion apparently thinks that the senses of being distinguished in Δ . 7 are exclusively senses of 2-place being, and this is wrong, but she is right that none of the distinctions he draws there are distinctions between 1-place and 2-place being, and that this should be surprising given *Posterior Analytics* 2. L. Brown, in 'The Verb "To Be" in Greek Philosophy: Some Remarks' ['The Verb "To Be"'] (in S. Everson (ed.), *Companions to Ancient Thought*, vol. iii: Language (Cambridge, 1994), 212–36), notes at 233–6 both that Aristotle draws the

that, despite the difference between the singly unsaturated and doubly unsaturated senses, it is somehow possible to infer back and forth between expressions of the form ‘*X* is’ and expressions of the form ‘*S* is *P*’, so that different senses of 1-place being will correspond to different senses of 2-place being, so that in dividing either we are implicitly also dividing the other. But Δ . 7 says nothing explicit about how this is supposed to work. How then is Δ . 7 supposed to fulfil what seems to be its function, of clearly distinguishing the different senses of being so that we can investigate them scientifically in the *Metaphysics*?

3. 1-place and 2-place being and their causes

My main thesis is that it is possible to overcome these frustrations and make sense of Δ . 7 on two conditions: first, that we see Aristotle’s distinctions between *senses* of being as instrumental to his investigation of the *causes* of being as developed in the *Metaphysics*; and second that, guided by this causal context and specifically by the account of causes of existence in the *Posterior Analytics*, we understand the connection between 1-place and 2-place being in a way very different from that proposed by G. E. L. Owen in ‘Aristotle on the Snares of Ontology’ and shared (with variations) by a wide range of recent writers.¹⁸

existential-predicative distinction in the *Posterior Analytics* and that he does not do so in Δ . 7, and also sees that the distinctions he does draw in Δ . 7 crosscut with the existential-predicative distinction, but she wrongly concludes that Aristotle regards the existential-predicative distinction as unimportant.

¹⁸ G. E. L. Owen, ‘Aristotle on the Snares of Ontology’ [‘Snares of Ontology’] in id., *Logic, Science, and Dialectic: Collected Papers in Greek Philosophy* [*Logic, Science, and Dialectic*] (Ithaca, 1986), 259–78. I recall John Cooper, in conversation, as doubting whether ‘Aristotle on the Snares of Ontology’ had much influence. But E. Berti, ‘Being and Essence in Contemporary Interpretations of Aristotle’, in A. C. Bottani, M. Carrara, and P. Giaretta (eds.), *Individuals, Essence and Identity: Themes of Analytic Metaphysics* (Dordrecht, 2002), 79–107, refers at 83 to this ‘famous paper’ of Owen as a crucial moment, and there are similar credits to Owen and to this paper in particular in C. H. Kahn’s ‘Retrospect on the Verb “To Be” and the Concept of Being’, in S. Knuuttila and J. Hintikka (eds.), *The Logic of Being: Historical Studies* (Dordrecht, 1985), 1–28, and ‘Why Existence Does Not Emerge as a Distinct Concept in Greek Philosophy’, in P. Morewedge (ed.), *Philosophies of Existence: Ancient and Medieval* (New York, 1982), 7–17. In any case Owen in this paper is largely expanding on what he had said in an earlier and unquestionably influential paper, ‘Logic and Metaphysics in Some Earlier Works of Aristotle’, in id., *Logic, Science, and Dialectic*, 180–99, esp. 181 and n. 3. (However, R. Dancy,

Reading Δ . 7 in the context of the *Metaphysics*' investigation of the principles as causes of being means, in part, looking forward to *EZHΘ*. Aristotle needs to distinguish different senses of being because these different senses have different kinds of causes, and so it will help us to understand why Δ . 7 draws these distinctions, and fails to draw others, if we look ahead to what *EZHΘ* will say about the causes of being. But we must also look backward, in the first instance to Γ . 1–2. Γ itself has to be seen in the context of the developing argument of the *Metaphysics*. From *AB* we know that in pursuing wisdom (the most intrinsically valuable kind of knowing) we are looking for the principles, the first of all things, and that we will find them as first causes, i.e. will find them by beginning with some effect and reasoning back to its causes until we reach a stopping-point of explanation. *AB* don't tell us what this effect is: *B* raises, and does not resolve, the questions whether the principles will be causes of substances or accidents or both, of one kind of substance or of all kinds (*aporiai* 3–4).¹⁹ Γ . 1 announces an answer, that the principles will be the causes of being *qua* being and of its *per se* attributes such as unity, i.e. causes to the things that are, of the fact that they are, and of the facts that they are each one, are collectively many, and so on. As noted earlier, Aristotle's reason is apparently that the highest causes will be causes of the most widely extended attributes, which will be being and the attributes coextensive with it; and if being or its attributes are said in several senses, we will need to distinguish these different senses in order to determine whether some one or more of them can lead us up causally to the principles. And to this extent Aristotle seems to be placing

'Aristotle on Existence', in S. Knuuttila and J. Hintikka (eds.), *The Logic of Being: Historical Studies*, 49–80, seems to approve of the earlier but not of the later paper, see his n. 1 and n. 3.) For my immediate purposes it does not matter too much whether Owen was the source from which this view diffused, still less which paper of Owen's was the bearer of the influence. I take Brown's view, in the paper cited in the previous footnote, to be in the same family as Owen's, although she herself seems to feel there is a deep difference; how great the differences appear depends on how far away you stand. (Brown in conversation tells me that she was not particularly thinking about Owen in writing that paper: evidently both Brown and Owen were responding to a wider discussion.)

¹⁹ There is a major interpretive issue here: do *ousia* and *sumbebēkos* here have their technical categorical senses, 'substance' and 'accident', or are they equivalent to 'being' and '*per se* attribute of being', or (as I think) to 'domain of being [such as might be the object of some science]' and '*per se* attribute of that domain of being'? But I'll set this issue aside for purposes of the present paper; for discussion, see *The Aim and the Argument* 1β2b.

himself among Thomas' third group of philosophers, who consider being inasmuch as it is being, and consider the causes to a thing, not just of its being such or being this, but of its being *simpliciter*.

This makes it sound as if we will be investigating causes of 1-place being—causes, to X , of the fact that it exists—and as if we will start by distinguishing the different senses of 1-place being. The surprise is then, when we turn to Δ . 7, that the large majority of examples are of 2-place being. But this is as it should be. Aristotle rejects what he thinks of as a Platonist view that, when we investigate why X exists, or why X comes-to-be, X is the persisting subject to which being is added (thus in the Second Hypothesis of the *Parmenides*, a one-that-is must be composed of a one-constituent and an added being-constituent; in the Fifth Hypothesis, a one-that-is-not can come-to-be; Plato accepts what might look like a *reductio ad absurdum*, that the one-constituent and the one-that-is-not must already in themselves somehow *be* before being is added to them). By contrast, Aristotle's own considered view, laid out in the scientific methodology of *Posterior Analytics* 2 and taken up from the *Analytics* especially in *Metaphysics* Z. 17–H, is that in order to investigate the causes of any instance of 1-place being, the correct method is first to rewrite it as an instance of 2-place being. If ' X exists' is equivalent to ' S is P ', then in investigating why X exists, instead of taking X as the underlying subject and investigating why being belongs to it, we can take S as the underlying subject and investigate why P belongs to it: thus if 'lunar eclipse exists' is equivalent to 'moon is darkened at opposition', the fruitful approach is to investigate, not why being belongs to lunar eclipse, but why darkened-at-opposition belongs to the moon (so *Post. An.* 2. 2, 90^b5–23). Aristotle does not claim that every assertion of the form ' X exists' is equivalent to an assertion of the form ' S is P ', but he does think both that this is true for a very wide range of assertions ' X exists', and that, where it is not, it is not possible to investigate causally the existence of X .

Metaphysics Δ , as a general rule, draws not every distinction which could be drawn among the senses of a term, but only those distinctions which will be needed later in the *Metaphysics*. Δ . 7, in particular, distinguishes those senses of being whose causes will be investigated separately in *EZH* Θ : being *per accidens* in *E*. 2–3, being as truth in *E*. 4 and Θ . 10, being as divided into the categories in *ZH*, being as actuality and potentiality in Θ . 1–9. By contrast,

there will not be separate investigations of the causes of 1-place being and of the causes of 2-place being, since it is not possible to investigate the causes of 1-place being except by rewriting it as 2-place being. Δ . 7 does not start by classifying the ways that the verb ‘to be’ (*εἶναι*) is used (a proper survey would have to distinguish 1- and 2-place uses, as well as noting constructions such as *ἔστι* with dative of possession or *ἔστι* potential with infinitive); rather, it starts by asking how many ways ‘being’ or ‘what is’ (*τὸ ὄν*) is said, or how many ways something can be called a being. This means that the question is in the first instance about 1-place being; and this is just what we would expect from *Γ*. 1–2, the chapters which motivate the study of being and its attributes, and which thus require something like Δ . But then the best way to illustrate and distinguish each of the senses of 1-place being, with a view to investigating their causes in *EZHΘ*, is to give examples of the corresponding sense of 2-place being. The logical relations between senses of 1-place and 2-place being, and the ways in which the 2-place formulations can help us to recognize the different senses of 1-place being, and, especially, help us to investigate their causes, become clearest in the account of *per se* or categorial being and in the accounts of actual and potential being.

4. Being *per se* and the methodology of *Posterior Analytics* 2

Aristotle says:

καθ’ αὐτὰ δὲ εἶναι λέγεται ὅσαπερ σημαίνει τὰ σχήματα τῆς κατηγορίας· ὁσαχῶς γὰρ λέγεται, τοσαυταχῶς τὸ εἶναι σημαίνει. ἐπεὶ οὖν τῶν κατηγορουμένων τὰ μὲν τί ἐστὶ σημαίνει, τὰ δὲ ποιόν, τὰ δὲ ποσόν, τὰ δὲ πρὸς τι, τὰ δὲ ποιεῖν ἢ πάσχειν, τὰ δὲ πού, τὰ δὲ ποτέ, ἐκάστω τούτων τὸ εἶναι ταυτὸ σημαίνει· οὐθὲν γὰρ διαφέρει τὸ ἄνθρωπος ὑγιαίνων ἐστὶν ἢ τὸ ἄνθρωπος ὑγιαίνει, οὐδὲ τὸ ἄνθρωπος βαδίζων ἐστὶν ἢ τέμνων τοῦ ἄνθρωπος βαδίζει ἢ τέμνει, ὁμοίως δὲ καὶ ἐπὶ τῶν ἄλλων. (Δ . 7, 1017^a22–30)

However many things are signified by the figures of predication [i.e.] are said to be *per se*: for in however many ways they are said, in so many ways does ‘being’ signify. So, since some predicates signify what [the subject] is, others what it is like, others how much, others relation, others to act or be acted on, and others where or when, ‘being’ signifies the same as each of these: for there is no difference between ‘[a] man *is* healthy [ἄνθρωπος ὑγιαίνων ἐστίν]’ and ‘[a] man enjoys-health [ἄνθρωπος ὑγιαίνει]’ or between

‘[a] man *is* walking’ or ‘cutting’ and ‘[a] man walks’ or ‘cuts’, and likewise in the other cases.

There is much disagreement, and much discomfort, about what Aristotle is dividing here, and how it is distinguished from being *per accidens*. Owen proposed that being *per se* here is being in the sense of existence, which is divided into different senses when applied to beings in different categories; being *per accidens* would be 2-place being, or a particular kind of 2-place being.²⁰ By contrast, Ross and S. Mansion take both being *per accidens* and being *per se* in Δ . 7 to be kinds of 2-place being: being *per accidens* when the predicate is not essential to (i.e. not part of the definition of) the subject, and being *per se* when the predicate is essential to the subject.²¹ Unfortunately, both of these interpretations are hopeless: against Owen, Aristotle’s example-sentences for being *per se* (‘a man is healthy’, ‘a man is walking’, ‘a man is cutting’) are all assertions of 2-place being, and against Ross and Mansion, in all these examples the predicate is an accident of the subject rather than essential to it. So the most obvious ways of trying to distinguish *per se* from *per accidens* being will not work.²² But further study of the section on *per se* being, in the larger context of the *Metaphysics*, can shed more light on the distinction.

Owen must be right that Aristotle’s account of the different senses of *per se* being is somehow connected with the different senses of 1-place being as said of things in different categories: but how exactly does the connection work? Aristotle’s general argument in Δ . 7, 1017^a22–30 seems to be: different predicates (said according to different ‘figures of predication’) signify what the subject is like, how much it is, and so on; if the sentence does not

²⁰ ‘Snares of Ontology’, 260–1 and (with doubts creeping in) 268–9; apparently followed by C. Kirwan, *Aristotle’s Metaphysics Books Γ , Δ , E* , translated with notes (Oxford, 1971), 140–3. Owen’s support would be *De Interpretatione* 11, 21^a25–33, where ‘is’ is said of Homer *per accidens* because he is a poet. But even if being *per se* and *per accidens* here mean 1-place and 2-place being (which I doubt—he seems to be worrying here about amplified vs. non-amplified senses of ‘is’ rather than about 1-place vs. 2-place senses, cf. Brown ‘The Verb “To Be”’, 233–4), this interpretation as applied to Δ . 7 cannot make sense of the text.

²¹ So Mansion, *Le jugement d’existence*, esp. 221–2.

²² Although, since both the Owen and the Ross-Mansion proposals presuppose that being *per accidens* is (a kind of) 2-place being, they couldn’t work anyway, since Aristotle also gives 1-place examples of being *per accidens*: the not-white (or the white) at Δ . 7, 1017^a18–19, but also, for instance, white man at Z . 6, 1031^a19–21 (and cf. Z . 4, 1029^b22–9) is an example of 1-place being *per accidens*, and is clearly supposed to be related to the examples of 2-place being *per accidens* given in Δ . 7.

already contain 'is', it can be paraphrased by a sentence '*S is F*'; 'is' here signifies something different depending on *F*'s 'figure of predication', signifying in some cases what *S* is like, in others how much *S* is, and so on. The *immediate* conclusion of this argument can only be that 2-place 'is' signifies differently depending on the type of predicate complement attached to it. If Aristotle also concludes that 1-place 'is' or 'exists' signifies differently depending on the type of subject of which it is predicated, this must depend on some implicit further inference.²³

Aristotle's first concern here is to defend the claim that 2-place being is said in many ways, not so much against people who might think that 'is' means the same thing in 'Paris is Alexander' and in 'Paris is musical', as against people who deny that Paris *is* musical at all. Aristotle says there is no difference between '[a] man *is* healthy' (*ἄνθρωπος ὑγιαίνειν ἔστί*) and '[a] man enjoys-health' (*ἄνθρωπος ὑγιαίνει*), but some people thought there was. In *Physics* 1. 2 he talks about people who, to avoid the consequence that one thing *is* many things, say either (like Lycophron), not that 'the man *is* white' but only that 'the man *white*' (*ὁ ἄνθρωπος λευκός*), or (like other unnamed philosophers) 'not that the man *is* white but that he *has-gone-white* [*λελεύκωται*], not that he *is* walking but that he *walks*, so that they should not, by attaching 'is', make the one to be many' (185^b27–31);²⁴ Aristotle comments that all this worry is unnecessary once we recognize that 'is'—evidently 2-place 'is'—is said in many ways. The opponents apparently think that 2-place 'is' always signifies identity, and that this is symmetric and transitive; assuming that Socrates is white and so on, this leads to absurdities, which the opponents avoid by denying that Socrates is white. Aristotle runs the argument in the opposite direction, taking it as obvious that Socrates is white if 'he white' or if 'he has-gone-white', and inferring that 2-place 'is' does not always signify identity, but is said in many ways.²⁵

²³ You might say that Aristotle's argument here implies that 'Socrates is' (1-place) sometimes means 'Socrates is somehow qualified', i.e. 'for some quality-predicate *F*, Socrates *is F*', sometimes 'Socrates has some quantity', i.e. 'for some quantity-predicate *F*, Socrates *is F*', and so on. But, if so, this will not yield different senses of existence, predicated of things in different categories (Socrates, his colour, his height, etc.), but only different 1-place senses of 'is' all predicated of Socrates.

²⁴ *ὁ ἄνθρωπος οὐ λευκός ἐστίν ἀλλὰ λελεύκωται, οὐδὲ βαδίζων ἐστίν ἀλλὰ βαδίζει, ἕνα μή ποτε τὸ ἐστὶ προσάπτοντες πολλὰ εἶναι ποιῶσι τὸ ἐν.*

²⁵ Against the suggestion (C. H. Kahn's, in 'Questions and Categories', in H. Hiz (ed.), *Questions* (Dordrecht, 1978), 227–78 at 256) that when Aristotle says 'there is

If Aristotle is to show that ‘however many things are signified by the figures of predication are said to be *per se*’ (*Δ. 7, 1017^b22–3*), in what seems to be the intended sense, that things in different categories are said to exist in different senses of ‘exist’, he will need a further inference from what he has concluded about the different senses of 2-place being. The ‘categories’ or ‘figures of predication’ (τὰ σχήματα τῆς κατηγορίας) are in the first instance a classification of predicates or modes of predication. If there is also a corresponding classification of beings, as in the *Categories*, it must be derived from the classification of predicates. It seems clear enough how the derivation is supposed to work: ‘literacy’ (γραμματική), for instance, is a being in the category of quality because ‘*S* is literate’ (γραμματικός) is a quality-predication. Or, in general, *F* belongs to a certain category because ‘*S* is *F*’, or more precisely ‘*S* is *F**’, where *F** is paronymous from *F* and the subject *S* is assumed to be a ‘this’ or primary substance, is a predication in the corresponding figure of predication. In the *Categories* this is a basis only for a classification of beings, not for a claim that they *are* in different senses. But where Aristotle does make this claim, as in *Δ. 7*, again it seems clear what his basis must be: literacy *is* in the way peculiar to qualities because *S is* literate according to the kind of 2-place being signified by quality-predications; or, in general, *F is* according to a certain mode of 1-place being because *S is F** according to the corresponding mode of 2-place being.²⁶ Since *F* or *F** (literacy or the

no difference’, this shows that he is interested in analysing predications in general and does not care whether a form of ‘to be’ is in the assertion or not; rather, he is making an argument that the verb can indeed be used in as many senses as there are figures of predication. Likewise in the section on being *per accidens*, Aristotle starts from predications *not* using any form of the verb ‘to be’, like ‘the musician house-builds’ (τὸν μουσικὸν οἰκοδομεῖν, 1017^b10–12), and then argues that we can also say, in similar *per accidens* senses, ‘that the just [person] *is* musical and the man *is* musical and the musical [person] *is* a man’ (τὸν δίκαιον μουσικὸν εἶναι φάμεν καὶ τὸν ἄνθρωπον μουσικὸν καὶ τὸν μουσικὸν ἄνθρωπον, 1017^b8–10).

²⁶ I am not here trying to stress any contrast between *Δ. 7* and the *Categories*. The *Categories* does not say that being is said in different senses, but it does of course divide up the domain of beings (into individuals and universals, into the ten categories), and if we expansively interpret the text as implying that beings in different categories are called ‘beings’ in different senses (or that they *are* in different senses), then presumably the *Categories* too will think that the difference in the meanings of 1-place ‘is’ in ‘literacy *is*’ and ‘[an act of] walking *is*’ is inherited from the difference in the meanings of 2-place ‘is’ in ‘Socrates *is* literate’ and ‘Socrates *is* walking’, the latter equivalent to ‘Socrates walks’. And then we would presumably also expansively interpret the *Categories* as implying that, since for an abstract

literate [person]) is only because some substance S is F^* , and since this in turn presupposes that S is, 1-place being will be said *pros hen*, primarily of substances and derivatively of the various kinds of non-substances.²⁷

This seems to be the point that Aristotle is making in *T.* 2, 1003^b5–10 and *Z.* 1, 1028^a10–20.²⁸ *Z.* 1, 1028^a20–31 expands on the point by arguing that the abstracta or infinitives F are less beings

accident-term F ' F is' will be analysed as 'for some x , x is F^* ' where x ranges over substances, being will be said *pros hen*, primarily of substances and derivatively of beings in other categories (and primarily of individual substances and derivatively of universal substances): the *Categories* does of course say that 'if there were no primary substances, it would be impossible for any of the other things to exist' ($\mu\eta$ οὐσῶν οὐδὲν τῶν πρώτων οὐσιῶν ἀδύνατον τῶν ἄλλων τι εἶναι, *Cat.* 5, 2^b5–6). All of this is compatible with the *Categories*, Aristotle may well have believed it when he wrote the *Categories*, and perhaps the *Categories* even implies it, but the text does not thematize any analysis of the senses of being, and it does not need to, since it is not interested in the causes of being, or in the causes of anything else. On any reading the *Categories* says nothing about being *per accidens*, being as truth, or being as actuality and potentiality.

²⁷ By contrast, I don't know any text that says that 2-place being is said *pros hen*, i.e. that the 'is' of non-essential predication is derivative from the 'is' of essential predication. On the relationship between 1- and 2-place being I agree on many points with the view sketched by D. Charles, 'Some Comments on Prof. Enrico Berti's 'Being and Essence in Contemporary Interpretations of Aristotle'', in A. C. Bottani, M. Carrara, and P. Giaretta (eds.), *Individuals, Essence and Identity: Themes of Analytic Metaphysics* (Dordrecht, 2002), 109–26. But Charles, after saying rightly that B will exist, in the sense of 'exist' appropriate to qualities, 'if and only if B inheres in some substance in the way that it is appropriate for qualities to inhere in substances' (112), then spoils it by following Owen in saying that according to *A.* 7, 1017^a22–7 'there are as many existential senses of the verb "to be" as there are different types [of] categorical predication of the form " A is a substance", " A is a quality" etc'. Charles and I are broadly in agreement on Aristotle's clear distinction between 1- and 2-place being, on the importance of *Posterior Analytics* 2 in interpreting the *Metaphysics* on being, and on the interpretation of some disputed passages in *Posterior Analytics* 2 and in *Metaphysics H.* 2 (see, besides the present section, Sections 5–6 below): it seems to me that it would be more in keeping with the main thrust of his argument if he simply analysed ' B exists' (where B is a quality) as 'for some x , x is B^* ' and did not take the further step to ' B is a quality'. A further difference between Charles and myself is that he is very concerned with the difference between analyses of the meaning of sentences and the conditions *in re* which bring it about that those sentences are true: I don't disagree with what he says here, but I don't have his commitments, and am reluctant to attribute to Aristotle a well-worked out theory of meaning (although I will say a bit below on how far it is right to speak of Aristotle as 'analysing' judgements of existence). Charles and I developed our views independently, I think around the same time, and compared notes afterwards.

²⁸ Although the point in *T.* 1 isn't restricted to the categories, since Aristotle also says there that comings-to-be, privations, and so on, are said to *be* on account of their relations to substances.

than the corresponding concreta or participles F^* ; that the reason *why* the concrete F^* is more a being than the abstract F is that the concrete F^* has some determinate substance as its subject; and therefore that the concrete F^* *is* on account of this substance. Here presumably the abstract F *is* on account of the concrete F^* which in turn *is* on account of the underlying substance. This recalls, but goes beyond, something Aristotle says in *Posterior Analytics* 1. 4 about the mode of existence of non-substances, using one of the same examples (the walking [thing]) as in *Z.* 1. What exists *per se*, in the strict sense described in *Posterior Analytics* 1. 4 (which applies only to substances, by contrast with *Metaphysics* Δ. 7, where being *per se* applies to things in all categories) is

ἔτι ὁ μὴ καθ' ὑποκειμένου λέγεται ἄλλον τινός, οἷον τὸ βαδίζον ἕτερόν τι ὄν βαδίζον ἐστὶ καὶ τὸ λευκὸν <λευκόν>, ἢ δ' οὐσία, καὶ ὅσα τότε τι σημαίνει, οὐχ ἕτερόν τι ὄντα ἐστὶν ὅπερ ἐστίν. τὰ μὲν δὴ μὴ καθ' ὑποκειμένου καθ' αὐτὰ λέγω, τὰ δὲ καθ' ὑποκειμένου συμβεβηκότα. (*Post. An.* 1. 4, 73^b5–10)

what is not said of some other underlying thing: for example, the walking [thing], being something else, is walking, and likewise the white, but substance, and whatever signifies a this, are not, being something else, what they are. So the things that are not [said] of a subject, I call *per se*, and the things that are [said] of a subject I call accidents.

Here to say that the F , *being something else*, is F , is not just to say conjunctively that what is F is also something else (that it is G for some G): for this would apply even to Socrates, who is also white.²⁹ Rather, the participial clause must be construed as a causal clause, implying a logical priority: what is F is first S and then, logically afterwards, it is F .³⁰ Thus the walking [thing] (τὸ βαδίζον), the paronymous F^* , exists only because, being some underlying thing S which exists *per se*, it is also F^* ; while, to turn to the abstracta and infinitives that Aristotle discusses in *Z.* 1, the non-paronymous F , the act of walking (τὸ βαδίζειν), exists not because some underlying thing which exists *per se* is F , but because it is F^* . We can say that in such a case F^* exists *concretely not per se*, while F exists *abstractly*

²⁹ To say that ' X οὐχ ἕτερόν τι ὄν ἐστὶν ὅπερ ἐστίν' is just to state the negation of 'the X , ἕτερόν τι ὄν, is X ': 'οὐκ' negates the whole phrase 'ἕτερόν τι ὄν ἐστὶν ὅπερ ἐστίν' and not simply the participial clause 'ἕτερόν τι ὄν'; and to say that the X 'ἐστὶν ὅπερ ἐστίν' is simply to say that it is X .

³⁰ Thus Barnes translates 'οὐχ ἕτερόν τι ὄντα ἐστὶν ὅπερ ἐστίν' as 'are not just what they are *in virtue of* being something different' (my emphasis).

not *per se*.³¹ But in both cases, the senses in which they can be said to *be* (1-place) correspond to the senses in which some underlying thing can be said to *be* (2-place) F^* .

This way of thinking about the relationship between 1-place and 2-place being, and between the many senses of 1-place being and the many senses of 2-place being, contrasts with Owen's view that for Aristotle 1-place ' F is' is expandable into a sentence of the form ' F is G ', where this is always an *essential* predication: sometimes the view seems to be that ' G ' here is the species or lowest genus of F ('literacy is an art'), sometimes that it is a highest genus ('literacy is a quality').³² On either version, this view can make no sense of Δ . 7, 1017^a22–30, which makes no mention of essential predications like 'literacy is an art' or 'literacy is a quality', and instead explains the senses of being corresponding to the different categories in terms of the different 'figures of predication' through which they are said of a substantial subject. Owen recognizes the difficulty, and in an

³¹ What exists abstractly not *per se*, unlike what exists concretely not *per se*, can be the answer to a what-is-it question (e.g. what is justice?), and so may in a derivative sense be called an *ousia* or even a this or τὸδε τι (thus justice is a this but the just is not, *Top.* 3. 1, 116^a23–4); nonetheless, things that exist abstractly not *per se* exist in an even weaker way than things that exist concretely not *per se*, since their existence is parasitic on the existence of things that exist concretely not *per se*, whose existence is in turn parasitic on the existence of things that exist *per se*. These distinctions are important because Aristotle will insist that *matter* exists abstractly *per se*: see Section 6 below.

³² At 'Snares of Ontology', 265, ' F is' is short for ' F is G ' where G is the category or highest genus under which F falls, so that 'Socrates is' is short for 'Socrates is a substance' and 'courage is' is short for 'courage is a quality'; this is supposed to explain why in Δ . 7 being *per se* (which Owen takes to be existential being) has just as many senses as there are categories. But Owen's proof-text, *H.* 2, 1042^b25–8, no matter how it is read (see Section 6 below), completely fails to support this idea: it puts the being of F not in its genus but in its differentia. However, by 'Snares of Ontology', 269, 'for [Aristotle] it is one and the same enterprise to set up different definitions of "ice" and "wood" and to set up two different uses of "exist": here the view is apparently that 'man is' is short for 'man is man' (or 'man is wingless biped animal') and that 'Socrates is' is short for 'Socrates is [a] man' (or 'Socrates is [a] wingless biped animal'). As G. Matthews points out in 'Aristotle on Existence', *Bulletin of the Institute of Classical Studies*, 40 (1995), 233–8, and as Owen himself seems to recognize at 'Snares of Ontology', 265, this implies that sentences like 'Rufus and Rosy are' are illegitimate, since 'Rufus is' is short for 'Rufus is a cat' and 'Rosy is' is short for 'Rosy is a ferret'. A philosopher might, in the Russellian type-theoretic spirit, reject 'Socrates and his whiteness are', but to extend this to cats and ferrets is going too far. L. Brown, in 'The Verb "To Be"', broadly shares Owen's approach to existential and predicative 'is' but thinks that ' F is' is equivalent to ' $\exists G (F \text{ is } G)$ ', with no predicate favoured over any other (except that ampliating or alienating predicates, e.g. 'possible' or 'non-existent', are ruled out).

astonishing footnote pretends that it is anomalous that ‘there are passages where Aristotle does seem to assign the *copulative* “is” a different sense in different categories’ (‘Snares of Ontology’, 269 n. 14). Owen thus proposes to explain ‘the odd lines 1017^a27–30 in *Metaphysics* 5. 7’ by positing that ‘for *red* to exist is for it to be a quality, so for *red* to belong to *A* is for it to be a quality of *A*’; therefore ‘*B* belongs to *A*’ would have different senses depending on what category *B* falls under, and therefore its equivalent ‘*A* is *B*’ would also have different senses. This is completely backwards: Aristotle takes the difference among the ‘figures of predication’ as obvious, not as needing to be justified by the much more obscure difference among the senses of 1-place being. (Also Owen’s proposal that the sense of 2-place ‘is’ in ‘*A* is *B*’ follows from the sense of 1-place ‘is’ in ‘*B* is’ would have the consequence that ‘green is a colour’ is a qualitative rather than an essential predication.) But Δ. 7, 1017^a22–30 is in no way anomalous or isolated: even setting aside texts on the senses of being corresponding to the different categories (such as *Z.* 1 or *Physics* 1. 2 on Lycophron and his friends), it is Aristotle’s consistent view that to analyse ‘*F* exists’, and in particular to make it amenable to causal investigation, we need not to expand the predicate-term ‘is’ but rather to move the subject-term ‘*F*’ to predicate position. At *A.* 6, 1071^b12–13, ‘if there is something capable of moving or of making, but not [actually] *doing* anything, motion will not be [or: there will not be motion]’ (εἰ ἔστι κινήτικόν ἢ ποιητικόν, μὴ ἐνεργούν δέ τι, οὐκ ἔσται κίνησις), it would be absurd to expand ‘motion will not be’ as ‘motion will not be a kind of being-acted-on’: rather, there will be no motion because *things will not be moved*, because *nothing will be moving them*. ‘When the man enjoys-health [*ὕγιαίνει*], then too health exists’ (ὅτε γὰρ ὕγιαίνει ὁ ἄνθρωπος τότε καὶ ἡ ὑγίεια ἔστιν, *A.* 3, 1070^a22–3)—not ‘when health is a quality’. Likewise in analysing ‘health comes-to-be’ it will not help either to supply a predicate, ‘health comes-to-be *G*’, or to posit a persisting subject, health, which makes the transition from non-existence to existence like the One of the Fifth Hypothesis of the *Parmenides*: rather, causal investigation becomes possible only once we rewrite ‘health comes-to-be’ as ‘some living thing comes-to-be healthy’. It is true, as Owen and Gilson insist, that Aristotle sometimes equates ‘*F* exists’ with ‘*F* is *F*’: thus in *De Anima* 2. 4 the soul is the cause as *ousia* of ensouled bodies, ‘for the cause of being to all things is the *ousia*, and for living things to live is to be, and the

soul is the cause and principle of this [sc. of living]’ (τὸ γὰρ αἴτιον τοῦ εἶναι πᾶσιν ἢ οὐσία, τὸ δὲ ζῆν τούτοις ζῶσι τὸ εἶναι ἐστίν, αἰτία δὲ καὶ ἀρχὴ τούτου ἢ ψυχῆ, 415^b12–14).³³ But the soul is the cause of being to living things by being the cause, to some *S*, of the fact that it is living, and Aristotle is here applying his rule that the *ousia* of *F* is the cause of the fact that *F* exists, i.e. the cause, to some appropriate *S*, of the fact that it is *F* (or *F**), as the *ousia* of whiteness is the cause, to some surface, of its being white, and the *ousia* of eclipse is the cause, to the moon, of its being eclipsed.

Someone may object here that the case of accident-terms like ‘white’ is different from the case of substance-terms: it may be that, when *F* is an accident, Aristotle analyses ‘*F* exists’ as something like ‘ $\exists x Fx$ ’, where the quantifier ranges over something like substances,³⁴ and so takes the cause of the existence of *F* to be the cause of ‘ $\exists x Fx$ ’, or the cause of some instance ‘*Fa*’; but substances themselves, as the basic items of which everything else is predicated, must exist in some more basic way not captured by the existential quantifier.³⁵ I agree that Aristotle does not hold that existence is a second-order predicate, and sees nothing wrong with statements like ‘*F* exists’ even where ‘*F*’ is an individual substance-term; and I agree that we cannot keep analysing ‘*F* exists’ as ‘some *S* exists and is *F*’ forever, but must reach something whose existence is

³³ Owen also claims that in *Metaphysics H. 2* Aristotle analyses ‘ice exists’ as ‘ice is solid’. I think this is wrong: see Section 6 below.

³⁴ ‘Something like’ because of the example of whiteness, where surfaces are not substances; but perhaps ‘surface exists’ can be further analysed as ‘body is bounded’.

³⁵ Owen was thinking *something* like this when he tried to distinguish being* from being**: being** is something like the existential quantifier, but being* would be something more robust, which when asserted of animals would be equivalent to their being alive. But Owen did not limit being* to substances. For Owen’s distinction between being* and being**, see Section 6 below. In drawing such a distinction Owen was largely following P. T. Geach, ‘Form and Existence’ (*Proceedings of the Aristotelian Society*, 55 (1954–5), 251–72, reprinted in id., *God and the Soul* (London, 1969), 42–64, and elsewhere); a closely related text is published as the second chapter of G. E. M. Anscombe and P. T. Geach, *Three Philosophers* (Oxford, 1961). Owen cites Geach in ‘Snares of Ontology’ at 266 n. 12 and the text above, but in a way that would give the unwary reader little hint of the depth of his dependence. Geach was attributing the distinction between two senses of being to Thomas, in order to show that Thomas had correctly recognized a sense of existence that is not captured by the existential quantifier, but Geach might not have objected to attributing much of the same content to Aristotle—his Thomas is much less anti-Aristotelian than Gilson’s. (Gilson, had he known what the existential quantifier was, would surely also have thought there was a more robust sense of existence which it failed to capture.)

primitive. But even if the existence of a substance cannot be *analysed* into something ontologically more primitive, in the way that the existence of a quality can be analysed into some substance's existing and being somehow qualified, an assertion of the existence of a substance may still in many cases be *equivalent* to something of a form resembling ' $\exists x Fx$ '. Aristotle thinks that we can investigate the cause of the existence of the substance only if we restate its existence in this form, and that if its existence cannot be restated in this form, we cannot investigate it causally at all.³⁶

To see how Aristotle is thinking about the *ousia* of a thing as the cause of its existence, and about how the existence of a thing must be formulated in order to investigate its causes, we have to turn to *Posterior Analytics* 2. 1–10. Aristotle's main concern in these chapters is with the investigation of *what X is*—that is, with the search for definitions—but he claims that, unless *X* is a primitive in some science, the correct scientific definition of *X* will be equivalent to an explanation of *why X is*. I have already mentioned this text for its distinction between investigations whether *X* is, *simpliciter*, and investigations whether *S is P*. More fully, Aristotle distinguishes four kinds of scientific questions or investigations, whether *X is*, what *X is*, whether *S is P*, and why *S is P* (described in *Post. An.* 2. 1). His fundamental claim is that there is an analogy: what-*X-is* is to whether-*X-is* as why-*S-is-P* is to whether-*S-is-P*. That is: the answer to 'what is *X*?' will state the cause of the fact that *X* exists, just as the answer to 'why is *S P*?' states the cause of the fact that *S is P*; and just as we cannot know *why S is P* unless we know *that S is P*, so we cannot know *what X is* unless we know *that X is*. This may seem surprising: for how can we know that *X* exists, or investigate whether *X* exists, if we don't yet know what *X is*—how will we know how to search for *X*, or, even if we find it, how will we recognize it? But Aristotle answers that, while we cannot know what *X is* if we do not know that *X* exists (or if *X* does not in fact exist), we can still know what the term '*X*' means. For instance, even if we do not know whether there are lunar eclipses (and so certainly do not know why there are lunar eclipses, and thus do not know what lunar eclipses are), we can know that '[lunar] eclipse' means (say) 'darkening of the moon at opposition', or similarly

³⁶ So *Metaph. Z.* 17, 1041^a10–^b11, esp. 1041^a32–^b4, and, for the negative point about unanalysable simples, 1041^b9–11.

that ‘thunder’ means ‘noise in the clouds’. We can then go on to grasp that eclipse or thunder exists ‘grasping something of the thing itself’ (ἔχοντές τι αὐτοῦ τοῦ πράγματος, 2. 8, 93^a21–2), although we do not yet grasp its full definition.

Aristotle says that when we ask whether *X* is, or whether *S* is *P*, we are asking whether there is a middle term, and that when we ask what *X* is, or why *S* is *P*, we are asking what that middle term is (2. 2, 89^b37–90^a1). He does not mean that, when we ask whether *X* is, we are asking whether there is a middle term between *X* and being: the *Posterior Analytics* does not mention ‘being’ as a term in any scientific syllogism. Rather, once we have glossed ‘eclipse’ by ‘darkening of the moon at opposition’, or ‘thunder’ by ‘noise in the clouds’, we can ask whether there is a middle term between ‘moon’ and ‘darkening at opposition’ or between ‘cloud’ and ‘noise’. Sometimes Aristotle says that we are investigating whether there is a middle term, and what the middle term is, between ‘cloud’ and ‘thunder’ rather than between ‘cloud’ and ‘noise’; but if thunder is just noise in clouds, then to ask whether or why thunder belongs to clouds is just to ask whether or why noise belongs to clouds (he goes back and forth between the two formulations, apparently without noticing it, at 2. 8, 93^b9–12). To know why there is thunder (or why ‘it thunders’, using the impersonal verb βροντᾶ), i.e. to know the middle term between noise and cloud, namely extinction of fire, is the same as knowing what thunder is, namely that it is ‘extinction of fire in cloud’ (πυρὸς ἀπόσβεσις ἐν νέφει, 2. 8, 93^b8) or more fully ‘noise of extinction of fire in cloud’.³⁷

In some cases, where *X* is a primitive in some science, there is no cause for the existence of *X*, and the science, in addition to positing what the term ‘*X*’ means, must also hypothesize that there are *X*’s, as geometry hypothesizes that there are points and straight lines and circles, and arithmetic that there are units (so already *Posterior Analytics* 1. 10, in a general account of the kinds of principles assumed by each science; taken up again 2. 9). In other cases, where *X* is non-primitive, the science posits what ‘*X*’ means and

³⁷ For the fuller formulation, see 2. 2, 90^a14–18: ‘in all these things it is clear that what-it-is and why-it-is are the same. What is an eclipse? Privation of light from the moon due to screening by the earth. Why is there an eclipse, or why is the moon eclipsed? Because the light fails when the earth screens it’ (ἐν ἅπασιν γὰρ τούτοις φανερόν ἐστιν ὅτι τὸ αὐτὸ ἐστὶ τὸ τί ἐστὶ καὶ διὰ τί ἐστὶν. τί ἐστὶν ἔκλειψις; στέρησις φωτὸς ἀπὸ σελήνης ὑπὸ γῆς ἀντιφράξεως. διὰ τί ἐστὶν ἔκλειψις, ἢ διὰ τί ἐκλείπει ἢ σελήνη; διὰ τὸ ἀπολείπειν τὸ φῶς ἀντιφραττοῦσης τῆς γῆς).

proves that X exists, as geometry posits what ‘irrational’ (ἄλογον) means (Aristotle’s example, 1. 10, 76^b9, see Euclid *El.* 10, Def. 3) and proves that irrational lines exist, or posits what ‘dodecahedron’ means (11, Def. 28) and proves that dodecahedra exist: in such cases, in demonstrating that X exists we learn simultaneously that X exists and why X exists, and thus what X is. In other cases, as where X = eclipse, we first learn by observation that X exists, then demonstrate from the appropriate causes that X exists, and thus learn why X exists and what X is. In all cases where X is not a primitive, scientific understanding requires us to demonstrate that X exists, and we can only do this if we can rewrite ‘ X is’ as ‘ S is P ’, e.g. ‘eclipse is’ (an example of 1-place being in *Posterior Analytics* 2. 2) as ‘the moon is eclipsed’ (an example of 2-place being in the same chapter) or as ‘the moon is darkened at opposition’. The pre-scientific formulation of what ‘ X ’ means is supposed to help us do this, but it may require some delicacy to specify the appropriate subject-term ‘ S ’. Thus while lunar eclipses occur when the moon suffers some affection, it is not true that solar eclipses occur when the sun suffers some affection. Sometimes the appropriate subject-term is plural, as in the example of consonance (2. 2, 90^a18–23), where the subject is ‘the high’ (τὸ ὀξύ) and ‘the low’ (τὸ βαρύ). In all these cases, to demonstrate that X exists, we are not trying to demonstrate that *every* S is P , but, typically, that *some* S is P (in the case of eclipse, where there is only one S , the moon, we are trying to demonstrate that S is *sometimes* P). In all these cases, to specify S , we need to find the *per se* subject of X —the S such that X can be predicated of anything else only because it is first predicated of S , the subject which is present in the definition of X as nose is in snub or number in odd. So rather than quantifying over all beings and analysing ‘ X exists’ as ‘something is X ’ (or ‘something is X^* ’, ‘something is eclipsed’ rather than ‘something is an eclipse’), we will quantify only over the relevant domain of which X is predicated, ‘some S is X ’. Then if possible we will refine ‘ S is X ’ into ‘ S is P ’ to avoid repetition (‘eclipse exists’ → ‘something is eclipsed’ → ‘the moon is eclipsed’ = ‘the moon has darkening of the moon at opposition’ → ‘the moon is darkened at opposition’), and then look for a middle term between S and P . And while someone might object that such an analysis is possible only when X is an accident, Aristotle thinks that it must also be possible for substances, at least for those substance-terms which are definable, which God and the

moon (being objects of science, but necessarily individual) are not. While the examples whose definitions are worked out in *Posterior Analytics* 2 (eclipse, thunder) are accidents, these are intended as easy paradigms for the more difficult and interesting cases where X is a substance. (Aristotle mentions man and soul alongside eclipse and thunder at 2. 8, 93^a21–4, and triangle *might* be a substance for all we know in the *Posterior Analytics*, although on Aristotle's view it isn't.) *Posterior Analytics* 2 is Aristotle's general account of definition, and if substance-terms cannot be defined in the way there described, they cannot be defined at all. As we will see in Section 6, when Aristotle in *Metaphysics* ZH confronts an *aporia* (Z. 13, 1039^a14–23) purporting to show that substance-terms cannot be defined, he tries to show that they can be defined, and how they can be defined, precisely by calling on *Posterior Analytics* 2.

5. Causes of being *per se*, investigating essences, and being as truth

We thus learn from *Posterior Analytics* 2 that in order to define X we must give a cause of 1-place being to X , and that in order to do this we must reformulate this instance of 1-place being in terms of 2-place being, separating out ' X exists' into two terms between which we can find a middle. In the *Metaphysics*, the order of concerns is different: Aristotle is now concerned primarily not with defining but with investigating the causes of being (in the first instance, of 1-place being) in order to discover the principles, although this investigation will also lead him in *Metaphysics* ZH to a discussion of definition, which in Z. 17 and the following chapters calls directly on *Posterior Analytics* 2. But given what we have seen from *Posterior Analytics* 2 about how to investigate the causes of being, it is unsurprising that Δ . 7, distinguishing the senses of being with a view to investigating their causes (in the first instance, causes of 1-place being), should mainly give examples of 2-place being. It is also unsurprising that the distinction between (2-place) being *per se* and being *per accidens* should be central to Δ . 7, and that the examples of 2-place being *per se* should not be of predicates which are contained in the definition of their subject: for there is no investigating either the causes of being *per accidens* (why is the white musical?), or the causes of a genus's or differentia's being

predicated of a species (why is white a colour?). Rather, to express ‘music exists’ or ‘the musical exists’ so as to make it amenable to causal investigation, we must reformulate it as ‘something/someone is musical’, or, more accurately, as ‘some man is musical’, if man is the *per se* subject of the art of music (and *Δ. 7*’s examples of what is said *per se* or *per accidens* are all *exempli gratia*, not implying any dogmatic commitment). Because ‘*S* is *F*’ is said in different ways according to the different categories, ‘*F* exists’ will also be said in different ways according to the different categories. To look for the cause of ‘*F* exists’ is not to look for something that supplies existence to *F*, perhaps a separate Form of being (if such a causal route succeeded, it would be a very quick way to an eternally unchanging principle as a cause of being universally, but it does not succeed), but rather for something that supplies *F*-ness to some subject, and primarily to the *per se* subject of *F*.

As we know from the *Posterior Analytics*, the cause of being of *F*, in this sense, is the *ousia* of *F*, i.e. the answer to ‘what is *F*?’, construed as asking for the essence or definition. *Δ. 7* doesn’t say anything about this—it never explicitly talks about causes—but *Δ. 8* says that one of the senses of *ousia* is ‘whatever is a cause of being, present in such things as are not said of a subject, as the soul [is the cause of being] to an animal’.³⁸ Often enough Aristotle refers to ‘the *ousia* of *F*’ as one of the kinds of cause of *F*, namely the formal cause: thus in the first *aporia* of *Metaphysics B*, when he asks whether wisdom is the science of the final, the formal, or the efficient cause, or of all three, his name for the formal cause is ‘the *ousia*’ (*B. 2*, 996^b14, clearly equivalent to ‘the what-it-is (τὸ τί ἐστίν)’ at 996^b17). In this sense too the *De Anima* says that ‘the soul is a cause as that whence the motion and as the for-the-sake-of-which and as the *ousia* of ensouled bodies: that it is [a cause] as *ousia* is clear, for the cause of being to all things is the *ousia*, and for living things to live is to be, and the soul is the cause and principle of this [sc. of living]’.³⁹ Aristotle is here claiming that the soul is the *ousia*

³⁸ 1017^b15–16: δ᾿ ἂν ἢ αἴτιον τοῦ εἶναι, ἐννύαρχον ἐν τοῖς τοιοῦτοις ὅσα μὴ λέγεται καθ’ ὑποκειμένου, οἷον ἢ ψυχὴ τῷ ζῴῳ. I argued in ‘*Metaphysics Z. 10–16* and the Argument-Structure of *Metaphysics Z*’ [*Metaphysics Z. 10–16*], *Oxford Studies in Ancient Philosophy*, 21 (2001), 83–134, that this sense of *ousia* (the second listed in *Δ. 8*) is supposed to include both the whole essence (the fourth sense) and the parts of the essence (the third sense).

³⁹ *DA* 2. 4, 415^b10–14 (partially cited above): καὶ γὰρ ὅθεν ἢ κίνησις αὐτῆ, καὶ οὐδ’ ἔνεκα, καὶ ὡς ἡ οὐσία τῶν ἐμφύχων σωμάτων ἢ ψυχῆ αἰτία. ὅτι μὲν οὖν ὡς οὐσία, δῆλον· τὸ

of the animal or plant, which was not the standard view either among physicists or among Academics. (A standard Academic definition of animal might have been something like ‘composite of soul and body’, see *Top.* 6. 14, 151^a20–31; the pseudo-Platonic *Definitions*, under ‘soul’, say that it is ‘cause of vital motion of animals’ (αἰτία κινήσεως ζωτικῆς ζώων, 411 C 7), but say nothing about its being their formal cause.) To support this claim, he takes the premiss from the *Posterior Analytics* that the *ousia* of *F* is the cause of being to *F*, that is, the cause, to the subject of *F* (and primarily to the *per se* subject of *F*) of its being *F*. Since the *per se* subject of ‘living’ is a potentially living body, or more helpfully an organic natural body, and since the soul is the cause to such a body of its being alive, the soul would be the *ousia* of a living thing.

This investigation of the cause of *F*’s existence, construed not as something like being-itself but as the *ousia* or formal cause of *F*, might lead to a separate eternal Form of *F*. If it did, that would be a way that the investigation of the causes of being *qua* being could lead to eternally unchanging principles, fulfilling the programme of *Metaphysics* Γ. 1 and Ε. 1; Aristotle thinks this causal route has much better prospects of succeeding than the route to a separate being-itself. In fact, of course, Aristotle thinks that this route does not succeed either, and a main burden of *Metaphysics* Ζ is to prove this. While Aristotle has a battery of arguments to this effect, one important reason why he thinks this route to separate eternal substances cannot succeed is that, as reflection on the methodology of definition shows, the essence of *F* is inseparable from the *per se* subject of *F*. As Aristotle says in *Posterior Analytics* 1. 4, *S* is *F per se*, not only if *F* is in the essence of *S*, but also if *S* is in the essence of *F*, ‘as straight and round belong to line, and as odd and even, prime and composite, square and nonsquare belong to number, where line or number belongs in the account saying what it is for all of these [attributes]’.⁴⁰ This does not mean that *S* belongs in the definition of *F* as a genus or a differentia; rather, it means that *F* cannot be defined directly, but only in the way that ‘snub’ is defined. ‘Snub’ cannot be defined either as ‘concave’ or as ‘concave

γὰρ αἴτιον τοῦ εἶναι πᾶσιν ἡ οὐσία. τὸ δὲ ζῆν τοῖς ζώσι τὸ εἶναι ἐστίν, αἰτία δὲ καὶ ἀρχὴ τούτου ἡ ψυχὴ.

⁴⁰ *Post. An.* 1. 4, 73^a38–^b3: οἶον τὸ εἶθὺ ὑπάρχει γραμμῇ καὶ τὸ περιφέρές, καὶ τὸ περιττὸν καὶ ἄρτιον ἀριθμῶ, καὶ τὸ πρῶτον καὶ σύνθετον, καὶ ἰσόπλευρον καὶ ἑτερόμηκες· καὶ πᾶσι τούτοις ἐνυπάρχουσιν ἐν τῷ λόγῳ τῶ τί ἐστι λέγοντι ἔνθα μὲν γραμμῇ ἔνθα δ’ ἀριθμός.

nose', we cannot say directly what the snub is, or what it is for something in general to be snub, but only what it is *for a nose to be snub*, namely, that it is for it to be concave;⁴¹ likewise, the only way to define 'even' or 'prime' is to say what it is for a *number* to be even or prime, and this is what Euclid in fact does (*El.* 7, Def. 6–7, 12). If *F* is predicated of anything at all (and if it isn't, it won't be definable), there must be some appropriate underlying nature *S* of which it is predicated *per se*, and if the only essence of *F*, the only what-it-is-to-be-*F*, is what-it-is-for-an-*S*-to-be-*F*, then the essence of *F* will be inseparable from this underlying nature *S*. Aristotle thinks this holds equally whether *F* is an accident or a substance. He argues in *Metaphysics Z.* 5 that things in non-substance categories can only be defined 'by addition' (*ἐκ προσθέσεως*, i.e. saying what *F* is by saying what an *FS* is) and therefore do not have definitions or essences in the primary sense—so, in particular, not essences that could be separated from their *per se* subject. If *F* is an accident its *per se* subject will be either some appropriate genus of substances, or perhaps some more fundamental kind of accident, as the *per se* subject of whiteness is surface: since the only essence of whiteness is what-it-is-for-a-surface-to-be-white, it cannot exist separately from surfaces. (To show that it also cannot exist separately from *bodies*, Aristotle will have to show that surfaces cannot exist separately from bodies, that for a surface to be is for some body to be bounded; and to show that it cannot exist separately from *sensible* bodies, he will have to show that there are no separate mathematical bodies. He does not make either of these arguments in *Z*, but he does in *M.* 2–3.) If, on the other hand, *F* is a natural substance-type, it cannot be defined without reference to its function and thus to motion and to the matter which is moved in the appropriate ways: 'all natural things are said like the snub, like nose, eye, face, flesh, bone, and animal as a whole, leaf, root, bark, and plant as a whole: for the account of any of these is not without motion, they have a matter in every case'.⁴² Even concave, which unlike the snub can be defined without reference to motion or to natural matter, cannot be defined without reference to its appropriate matter, geometrical extension, which *Metaphysics M*

⁴¹ For a detailed account, see *Aim and Argument* IIγ1b.

⁴² *Metaph.* E. 1, 1025^b34–1026^a3 (cf. *Phys.* 2. 2, 193^b36–194^a7): πάντα τὰ φυσικά ὁμοίως τῷ σιμῶ λέγονται, οἷον ῥίς ὀφθαλμὸς πρόσωπον σᾶρξ ὄστον, ὅλως ζῶον, φύλλον ῥίζα φλοιός, ὅλως φυτόν (οὐθενὸς γὰρ ἄνευ κινήσεως ὁ λόγος αὐτῶν, ἀλλ' αἰεὶ ἔχει ἕλην).

will argue cannot exist separately from sensible things. Because the essence of *F* is inseparable from the *per se* subject of *F*, looking for this kind of cause of being will not lead us to the kind of principles that first philosophy is seeking; it will still lead to knowledge of some kind of cause, falling under some science, typically physics.⁴³

By contrast, if we look for the cause of being-*F*, not to the *per se* subject of *F*, but to something else, *G*, there will be no cause of *G*'s being *F*—no cause of, say, the white's being musical—but, at best, one cause to a subject *S* of its being *F*, and another cause to *S* of its being *G*, with no further cause explaining why these two predicates should belong to the same thing. So the investigation of the causes of (2-place) being *per accidens* will not lead to any science at all. Now for some purposes it may not matter too much how we describe the thing that is *F*: we can use a name merely to pick out the thing, like a pronoun. *F* exists if *this* is *F* or *that* is *F*, and we can ask for the causes of *this thing*'s being *F*. So '*G* is *F*', even where *G* is not the *per se* subject of *F*, can still in a sense be a way of stating being *per se*, if we ignore the connection that it is asserting between *G* and *F* and attend only to what it is saying about *F*.⁴⁴

⁴³ Recall that *Metaph. E. 1* says it belongs to physics, rather than to first philosophy, to study the forms of natural things, because they cannot be grasped apart from matter and motion; similarly in *Parts of Animals 1. 1* it belongs to physics to study those kinds or parts of soul which are correlative with matter, while it belongs to first philosophy to study *nous*, which is correlative with its intelligible objects and so must be treated by the same discipline. The only passages where Aristotle says that first philosophy studies forms, *Phys. 1. 9*, 192^a34–^b2 and 2. 2, 194^b9–15, are demarcating, saying that natural and corruptible forms belong to the physicist, and eternal and separate forms (that is, Platonic forms if there are any) to the first philosopher (presumably it also belongs to the first philosopher to examine arguments for the existence of Platonic forms, and to show that these arguments fail). *Metaph. Z. 11*, 1037^a10–17 asks why, in pursuing first philosophy, we have been talking about the forms of sensible things, since the physicist is concerned with the form as well as with the matter, and answers that we are doing this for the sake of other substances beyond the sensibles—presumably because we need to investigate the Platonic claim that the formal cause of a sensible substance is an eternal unchanging substance beyond the sensibles. There are no texts suggesting that the same form might be treated both by physics and by first philosophy, e.g. by physics as a cause of motion and by first philosophy as a cause of being: it is always either one or the other. I discuss all these texts, and others that might be relevant, in 'La sagesse comme science des quatre causes?', in M. Bonelli (ed.), *Physique et métaphysique chez Aristote* (Paris, 2012), 39–68.

⁴⁴ Compare Ernst Tugendhat's proposal, in 'Über den Sinn der vierfachen Unterscheidung des Seins bei Aristoteles (*Metaphysik Δ. 7*)', in id., *Philosophische Aufsätze* (Frankfurt am Main, 1992), 136–44, that one and the same assertion '*S* is *F*' can simultaneously have the essential function of asserting that *F* exists

However, if we are trying to investigate the causes of *F*'s existence, following the methodology of *Posterior Analytics* 2, then it is important, not just to restate '*F* exists' in terms of 2-place being, '[some] *G* is *F*', but to restate it in terms of 2-place being *per se* rather than *per accidens*, '*S* is *F*' where *S* is the *per se* subject of *F*, or '*S* is *P*' rewritten to avoid repetition (as above, 'eclipse exists' → 'something is eclipsed' → 'the moon is eclipsed' → 'the moon is darkened at opposition'), so that we can look for a middle term between *S* and *P*. If *F* exists *per se*, and if *F* is predicated of anything at all, then we should be able to restate '*F* exists' in terms of 2-place being *per se*. If, however, *F* is something like white musical, there is no way that '*F* exists' can be rewritten as a *per se* predication which could have a cause, and so there is no essence of *F* to apprehend and no science of *F*; in such a case *F* has (1-place) being only *per accidens*.

We can now also see why Aristotle in *Δ*. 7 bothers to distinguish being *per se*, not only from being *per accidens*, but also from being as truth. Aristotle says:

ἔτι τὸ εἶναι σημαίνει καὶ τὸ ἔστιν ὅτι ἀληθές, τὸ δὲ μὴ εἶναι ὅτι οὐκ ἀληθές ἀλλὰ ψεῦδος, ὁμοίως ἐπὶ καταφάσεως καὶ ἀποφάσεως, οἷον ὅτι ἔστι Σωκράτης μουσικός, ὅτι ἀληθές τοῦτο, ἢ ὅτι ἔστι Σωκράτης οὐ λευκός, ὅτι ἀληθές· τὸ δ' οὐκ ἔστιν ἢ διάμετρος σύμμετρος, ὅτι ψεῦδος. (1017^a31–5)

Being and 'is' also signify that [something is] true, and not-being that [it is] not true but false, equally in affirmation and in negation, e.g. that Socrates *is* musical because this is true, or that Socrates *is* not white, because that is true; whereas the diagonal *is not* commensurable,⁴⁵ because this is false.

The difference that Aristotle is bringing out here between being as truth and being *per se* is not that being as truth is 2-place and being *per se* is 1-place, or that being as truth is predicated of linguistic objects and being *per se* of non-linguistic objects, or that being as truth is predicated of propositionally structured objects and being *per se* of objects not so structured, but rather that being as truth is said 'equally in affirmation and in negation' and being *per se* is not.

(equivalently, that it belongs to *some* subject, $\exists x Fx$), and the incidental function of connecting two descriptions of the same subject, '*S*' and '*F*'.

⁴⁵ Reading the necessary *οὐκ ἔστιν ἢ διάμετρος σύμμετρος* (in two manuscripts of Alexander's commentary, 372. 6–9, 'L' = A^b and A *ante correctionem*), with Bonitz, Christ, Jaeger, and Ross, against Bekker and apparently all manuscripts *οὐκ ἔστιν ἢ διάμετρος ἀσύμμετρος*.

It is obvious that an assertion like ‘*S* is not *F*’ denies a being, denies *S*’s being *F*; but Aristotle is noting that, in one sense, ‘*S* is not *F*’ also affirms a being, *S*’s being-not-*F*. Aristotle’s point in expressing ‘Socrates is not white’ with the word ‘is’ at the beginning [ἔστι Σωκράτης οὐ λευκός], is precisely to make clear that ‘is’ must be construed here as not falling under the scope of the negation-sign.⁴⁶ It is reasonable to use ‘true’ to mark this sense of being, since we can say that ‘not white’ is true of Socrates just as ‘musical’ is, whereas ‘commensurable’ is false of the diameter (or we could say that ‘Socrates musical’ (Σωκράτης μουσικός) and ‘Socrates not white’ (Σωκράτης οὐ λευκός) are true and ‘the diagonal commensurable’ (ἡ διάμετρος σύμμετρος) is false, since these are all grammatical sentences in Greek—there is obvious circularity if we say that ‘Socrates is musical’ means that ‘Socrates is musical’ is true).⁴⁷ There seems to be no reason why this sense of being could not, like the others, apply to 1-place being: the not-white is because it is true of something, just as the musical is because it is true of something. But there is no essence of not-white, and so no cause to investigate in the sense in which we can investigate the cause of a surface’s being white, and so no science (much less first philosophy) is a science of the not-white.

One reason why Aristotle finds this worth mentioning is that Plato in the *Sophist* says that the beautiful is no more ‘among beings for us’ (ἡμῖν τῶν ὄντων) than the not-beautiful (257 E 9–11), and that ‘not-being . . . does not fall short of any of the others in being’ (τὸ μὴ ὄν . . . ἔστιν οὐδενὸς τῶν ἄλλων οὐσίας ἐλλειπόμενον, 258 B 6–9), but rather ‘stably is, having its own nature: just as the large was large and the beautiful was beautiful and the not-large was not-large and the not-beautiful was not-beautiful, so too not-being in the same way was and is not-being, counting as one form among the many that are.’⁴⁸ However, in the *Timaeus* he says that it is

⁴⁶ Aristotle in *De Interpretatione* 10 says that the negation of ἔστι δίκαιος ἄνθρωπος is οὐκ ἔστι δίκαιος ἄνθρωπος rather than ἔστιν οὐ δίκαιος ἄνθρωπος (19^b26–30 and context), a distinction he does not draw in Δ. 7. To the extent that we draw this distinction, the ‘negation’ οὐκ ἔστι δίκαιος ἄνθρωπος will not affirm a being, but will only deny a being. It remains that ἔστιν οὐ δίκαιος ἄνθρωπος does assert a being (namely a man’s being not just), that the word-order of this sentence is chosen to make clear that the ‘is’ does not fall under the scope of the negation-sign, and that such a being occurs as much with a negative predicate as with an affirmative predicate.

⁴⁷ For *F* being ‘true of’ or ‘false of’ *S*, see *Metaph.* Δ. 29, 1024^b26–8.

⁴⁸ *Soph.* 258 B 10–C 4: βεβαίως ἔστι τὴν αὐτοῦ φύσιν ἔχον, ὡσπερ τὸ μέγα ἦν μέγα καὶ τὸ καλὸν ἦν καλὸν καὶ τὸ μὴ μέγα <μὴ μέγα> καὶ τὸ μὴ καλὸν <μὴ καλόν>, οὕτω δὲ καὶ τὸ μὴ ὄν κατὰ ταῦτόν ἦν τε καὶ ἔστι μὴ ὄν, ἐνάριθμον τῶν πολλῶν ὄντων εἶδος ἔν.

not accurate to say that not-being *is* not-being, or that the future (*γενησόμενον*) *is* future, or that the having-come-to-be or having-happened (*γεγονός*) *is* having-come-to-be or having-happened, or even that the now-coming-to-be or now-happening (*γγνόμενον*) *is* coming-to-be or happening (38 A 8–B 5).⁴⁹ Aristotle does not need to take sides on whether it is correct to say that the not-beautiful or not-being *is*; he takes such passages instead as testimony that ‘is’ is said both in a looser sense that is said ‘equally in affirmation and in negation’ and in a stricter sense that is said only of things affirmed in one of the categories. (It is also said in a still stricter sense that applies only to things said as substances.) I take it that Aristotle does mean to implicitly criticize the *Sophist*, but not simply for saying that not-being is. Rather, the point is that if Plato does not distinguish the kind of being that applies even to negations from the kind that applies only to things affirmed in the categories, or from the kind that applies only to things said as substances, then Plato’s arguments that the investigation ‘what is *F*?’ leads to separate eternal substances will, if valid, prove not only Forms of substances and Forms of accidents but even Forms of negations, a conclusion which Plato does indeed seem to accept in the *Sophist* but which Aristotle regards as manifestly absurd.⁵⁰ Aristotle’s reason for teasing out the concepts of being as truth and of being *per accidens*, and distinguishing them from being *per se*, is to mark out the senses of being which are too broad and too weak to possibly yield valid arguments for (or successful causal routes toward) separate eternal substances, and are indeed too weak for causal investigation of them to yield any science at all. Distinguishing these senses of being and then setting them aside helps us to clarify the concept of being *per se*, and to focus on it as a sense of being whose causal investigation does lead to genuine science, and might

⁴⁹ Plato’s meaning here is not entirely clear: ‘τὸ γεγονός’ might mean something past, as ‘τὸ γιγνόμενον’ means the temporal present and ‘τὸ γενησόμενον’ means the future, all opposed to an eternal ‘is’. But ‘τὸ γεγονός’ might instead mean ‘what has come-to-be and therefore now “is”’, again opposed to an eternal ‘is’; in which case Aristotle might be directly criticizing this passage at *Metaph. B. 4*, 999^b11–12, ‘What has come-to-be must *be*, at the first moment when it has come-to-be’ (τὸ δὲ γεγονός ἀνάγκη εἶναι ὅτε πρῶτον γέγονεν). The *Timaeus* passage looks to be a sorites argument: if you are going to say that τὸ γεγονός *is*, you should also say this of τὸ γιγνόμενον, and then (fairly absurdly) also of τὸ γενησόμενον, and then (manifestly absurdly) also of τὸ μὴ ὄν.

⁵⁰ This is Aristotle’s explicit strategy of argument at *Metaph. A. 9*, 990^b8–991^a8.

plausibly lead to the science we are seeking. Further argument will show that the causes of being in the senses corresponding to the non-substance categories, or the investigation ‘what is *F*?’ where ‘*F*’ is an accident-term, will not lead to separate eternal substances, and that the investigation of the causes of being-as-substance, or of the what-it-is of substances, are more likely to do so; and still further argument will show that these do not either.

6. From Δ . 7 to ZH: causes of being *per se*

If we look ahead to Aristotle’s treatment in *Metaphysics* ZH of the senses of being corresponding to the categories, and primarily of being as substance, we can see that it confirms the kind of connection between 1-place and 2-place being, and between the causes of 1-place and of 2-place being, that we would expect from *Posterior Analytics* 2, and that it does not, as Owen maintains, confirm the ‘expandability’ view of 1-place being.

Metaphysics EZH Θ , carrying out the programme of *\Gamma*. 1–2, look for the principles by investigating causes of being, distinguish the senses of being according to Δ . 7’s division in order to distinguish the causes of being and to focus on the more promising ones, and restate 1-place being in terms of 2-place being in order to make it amenable to causal investigation. After *E*. 2–4 have examined and dismissed the study of the causes of being *per accidens* and of being as truth, and after *E* has concluded by saying ‘so let these be set aside, and let us examine the causes and principles of being itself *qua* being’ (*διὸ ταῦτα μὲν ἀφείσθω, σκεπτέον δὲ τοῦ ὄντος αὐτοῦ τὰ αἴτια καὶ τὰς ἀρχὰς ἣ ὄν*, *E*. 4, 1028^a2–4), ZH take up the investigation of the senses of being corresponding to the categories; and after *Z*. 1 argues that substance is prior to what *is* in the other categorial senses, the other senses are mostly dropped. *Z*. 1–16 do not make heavy use of causal language, despite what one might expect both from the promise at the end of *E* and from the retrospective at the beginning of *H* (‘it has been said that we are seeking the causes and principles and elements of substances’).⁵¹ Still, throughout *Z*. 3–16, Aristotle is investigating the *ousia* of a given thing, usually itself a substance: that is, he is examining the question ‘what is *F*?’,

⁵¹ *H*. 1, 1042^a4–6: εἴρηται δὴ ὅτι τῶν οὐσιῶν ζητεῖται τὰ αἴτια καὶ αἱ ἀρχαὶ καὶ τὰ στοιχεῖα.

with a view to determining whether the *ousia* of *F* is something existing separately from *F* and prior (eternally prior) to *F*, as notably a Platonic form would be, but also an ultimate matter or irreducible material constituent.⁵² As we know from *Posterior Analytics* 2, the investigation ‘what is *F*’ is implicitly causal, and Aristotle uses explicitly causal language in summarizing the results of *Z.* 4–9 (‘the cause [which consists] of the forms, as some are accustomed to speak of forms, if they are things beyond the individuals, is of no use at least [as a cause of] comings-to-be and existings: so that they would not, at least for these reasons, be substances in themselves’, *Z.* 8, 1033^b26–9)⁵³ and in introducing the issue of the universal in *Z.* 13 (‘some people think that the universal is most of all a cause, and that the universal is a principle’, 1038^b6–8).⁵⁴ But *Z.* 17, taking a new turn after the negative conclusion of *Z.* 10–16 (‘none of the things said universally is a substance, and no substance is [composed] out of substances’, *Z.* 16, 1041^a3–5),⁵⁵ explicitly reframes the inquiry as a causal investigation:

τί δέ χρῆ λέγειν καὶ ὁποῖόν τι τὴν οὐσίαν, πάλιν ἄλλην οἶον ἀρχὴν ποιησάμενοι λέγωμεν. ἴσως γὰρ ἐκ τούτων ἔσται δῆλον καὶ περὶ ἐκείνης τῆς οὐσίας ἣτις ἐστὶ κεχωρισμένη τῶν αἰσθητῶν οὐσιῶν. ἐπεὶ οὖν ἡ οὐσία ἀρχὴ καὶ αἰτία τις ἐστίν, ἐντεύθεν μετιτέον. ζητεῖται δὲ τὸ διὰ τί αἰεὶ οὕτως, διὰ τί ἄλλο ἄλλω τινὶ ὑπάρχει. (*Z.* 17, 1041^a6–11)

Let us as it were start again and say what, and what kind of thing, substance should be said to be: for perhaps from these [considerations] it will also become clear about that substance which is separate from the sensible substances. So since substance is a principle and a cause, let us proceed from here. The ‘why’ is always sought in this way, why one thing belongs to another thing.

So far Aristotle has been investigating the *ousia* of *F* as the answer to ‘what is *F*?’, as it would be expressed by a definition of *F*, to see whether this investigation leads to some kind of principle existing prior to the manifest sensible *F*s: not only does it not lead to

⁵² I develop my views on the argument structure of these chapters briefly in ‘*Metaphysics Z.* 10–16’, much more fully in Part II of *The Aim and the Argument*.

⁵³ ἡ τῶν εἰδῶν αἰτία, ὡς εἰώθασί τινες λέγειν τὰ εἶδη, εἰ ἔστιν ἅττα παρὰ τὰ καθ’ ἕκαστα, πρὸς γε τὰς γενέσεις καὶ τὰς οὐσίας οὐθὲν χρήσιμα· οὐδ’ ἂν εἴεν διὰ γε ταῦτα οὐσίαι καθ’ αὐτάς.

⁵⁴ δοκεῖ δὲ καὶ τὸ καθόλου αἰτίον τισιν εἶναι μάλιστα, καὶ εἶναι ἀρχὴ τὸ καθόλου.

⁵⁵ ὅτι μὲν οὖν οὐτε τῶν καθόλου λεγομένων οὐδὲν οὐσία οὐτ’ ἐστὶν οὐσία οὐδεμία ἐξ οὐσιῶν, δῆλον.

anything beyond the sensibles, it has led to an *aporia* against the possibility of defining at all ('if neither can any substance be out of universals, on the ground that [a universal] signifies a such rather than a this, nor can any substance be a composite out of substances in actuality, then every substance would be incomposite, so that there would be no account of any substance', *Z.* 13, 1039^a14–19).⁵⁶ Aristotle now tries to find a way out of the *aporia* by calling on the thesis of *Posterior Analytics* 2. 1–10, that the scientific way to answer *what F* is to look for the *ousia* of *F* as a cause, that is, to investigate *why F* is (the reference to the *Analytiks* is sealed by the examples of eclipse, 1041^a16, and thunder, 1041^a24–5). And, as Aristotle immediately says, to do this we must restate the explanandum in terms of 2-place being, 'why one thing belongs to another thing'.

Against Ross's view that the *Posterior Analytics* account of definition can apply only to accidents, in the context of *Metaphysics Z.* 17 it is clear that Aristotle is mainly investigating 'what is it?' as asked of substances: the *aporia* from *Z.* 13 that he is trying to resolve was an *aporia* only against giving an account of substances (since there is no problem about a non-substance being composed out of non-substances), but that was a problem because 'everyone thinks, and we have said before, that there is a definition either only of substance or especially of substance, and now, it seems, not even of that' (ἀλλὰ μὴν δοκεῖ γε πᾶσι καὶ ἐλέχθη πάλοι ἢ μόνον οὐσίας εἶναι ὄρον ἢ μάλιστα· νῦν δ' οὐδὲ ταύτης, *Z.* 13, 1039^a19–20). He now says in *Z.* 17 that it is possible to define a substance-term '*F*' if, as is often the case, the existence of *F* can be restated as one thing's belonging to another thing:

λανθάνει δὲ μάλιστα τὸ ζητούμενον ἐν τοῖς μὴ κατ' ἀλλήλων λεγομένοις, οἷον ἄνθρωπος τί ἐστι ζητεῖται διὰ τὸ ἀπλῶς λέγεσθαι ἀλλὰ μὴ διορίζειν ὅτι τάδε τόδε. ἀλλὰ δεῖ διαρθρώσαντας ζητεῖν· εἰ δὲ μή, κοινὸν τοῦ μηθὲν ζητεῖν καὶ τοῦ ζητεῖν τι γίγνεται. (*Z.* 17, 1041^a32–b4)

What we are investigating remains undiscovered especially in things that are not said one of another, e.g. when we investigate what man is, because it is said *simpliciter* [i.e. with a 1-place 'is'] rather than determining that *these are this*. But we must articulate and then investigate; otherwise there

⁵⁶ εἰ γὰρ μήτε ἐκ τῶν καθόλου ὅσον τ' εἶναι μηδεμίαν οὐσίαν διὰ τὸ τοιόνδε ἀλλὰ μὴ τόδε τι σημαίνειν, μήτ' ἐξ οὐσιῶν ἐνδέχεται ἐντελεχεῖα εἶναι μηδεμίαν οὐσίαν σύνθετον, ἀσύνθετον ἂν εἶη οὐσία πᾶσα, ὥστ' οὐδὲ λόγος ἂν εἶη οὐδεμιᾶς οὐσίας.

will be no difference between investigating something and investigating nothing.⁵⁷

Z. 17 makes rather more explicit than the *Posterior Analytics* how to unpack 1-place being in terms of 2-place being. As usual, non-substance cases give the easiest illustrations, but are meant to shed light on the more difficult and important substance cases. So Aristotle says that ‘investigating why the musical man is a musical man’ (τὸ γὰρ ζητεῖν διὰ τί ὁ μουσικός ἄνθρωπος μουσικὸς ἄνθρωπός ἐστιν, 1041^a11–12) should be rephrased as ‘investigating . . . why the man is musical’ (διὰ τί ὁ ἄνθρωπος μουσικός ἐστιν, ^a13–14), since there is no investigating why a thing is itself (^a14–20). The unpacking of ‘the musical man is a musical man’ into ‘the man is musical’ illustrates the process of specifying the *per se* subject. To ask why the musical man is a musical man, if it isn’t just inquiring into a tautology, is to ask why *this* thing, which is in fact a musical man, is a musical man. But since the *per se* subject of musical man, the only thing which can be a musical man, is a man, we can replace ‘why is this a musical man’ with ‘why is the man a musical man’, and then we can eliminate the repetition and replace this with ‘why is the man musical’. Probably there is no definition of musical man, because probably there is no middle term explaining why the man is musical, but the case of musical man gives a model for the case of a substance-term, where the *per se* subject is the matter. We must

τὴν ὕλην ζητεῖ διὰ τί <τι> ἐστίν· οἶον οἰκία ταδί διὰ τί; ὅτι ὑπάρχει ὁ ἦν οἰκία εἶναι. καὶ ἄνθρωπος τοδί, ἢ τὸ σῶμα τοῦτο ὡδί ἔχον. ὥστε τὸ αἴτιον ζητεῖται τῆς ὕλης [τοῦτο δ’ ἐστὶ τὸ εἶδος] ᾧ τί ἐστίν· τοῦτο δ’ ἢ οὐσία. (1041^b5–9)

⁵⁷ The reader should be warned that the text of Z. 17 is troubled (see the next four footnotes). At 1041^a33, J’s μὴ κατ’ ἄλλων is possible, and A^b’s μὴ καταλλήλως (‘not correctly’) just might be right; the μὴ κατ’ ἀλλήλων printed by Christ and Ross and Jaeger may be right, but the basis is thin. Pseudo-Alexander 541. 26–7 reports κατ’ ἀλλήλων (without μὴ) as a variant on what he takes to be the usual reading, μὴ καταλλήλως. These editors are wrong in saying that the scholia in the lower margin of E report the variant μὴ κατ’ ἀλλήλων: E’s main text is nonsense, something like ἐν τοῖς μὴ κατ’ ἄλλομένους, evidently a miscopying of ἐν τοῖς μὴ κατ’ ἄλλων λεγομένους, and the scholia report two variants, of which the second is ἐν τοῖς μὴ κατ’ ἄλλων and the first is ἐν τοῖς μὴ καταλλήλως or just conceivably ἐν τοῖς μὴ καταλλήλοις, but not ἐν τοῖς μὴ κατ’ ἀλλήλων—it does not have an apostrophe after the τ, and the abbreviation after the final λ is wrong for -ων (see *πραγμαμάτων* just to the left).

In ^b2–3, I agree with these editors that A^b must be right against JE, with τάδε τόδε against τάδε ἢ τόδε and also with διαθρῶσαντας against διορθώσαντας.

investigate why the matter is something.⁵⁸ E.g. why are these things a house? Because there belongs [to them] what it is to be a house. And why is this, or this body in this condition,⁵⁹ a man? So we are seeking the cause by which the matter is something,⁶⁰ and this is the *ousia*.

So to investigate why man or house is (and thus what man or house is) is to investigate why *this* is a man or a house, or why *these things* are a man or a house, or why *this S* is a man or a house, or why *some S* is a man or a house, where *S* is the appropriate matter for a man or a house.

In every case, when we restate the explanandum ‘*F* is’ in terms of 2-place being, ‘*F*’ winds up as in predicate-position, not in subject-position. So too at 1041^a26–7, ‘why are these things, e.g. bricks and stones, a house?’ (καὶ διὰ τί ταδί, οἶον πλίνθοι καὶ λίθοι, οἰκία ἐστίν;). The only contested passage is at 1041^a20–1, which according to the two oldest manuscripts (J and E) reads ζητήσκει δ’ ἄν τις διὰ τί ὁ ἄνθρωπος ἐστι ζῶον τοιονδί: ‘one would investigate [not why a man is a man but] why man is thus-and-such an animal’. However, it seems clear that the other main branch of the manuscript tradition (represented by A^b and M) is right to read ζητήσκει δ’ ἄν τις διὰ τί ἄνθρωπος ἐστι ζῶον τοιονδί, with ζῶον τοιονδί as subject and ἄνθρωπος as predicate: ‘one would investigate [not why a man is a man but] why thus-and-such an animal is a man’.⁶¹ Here ‘thus-such-an-animal’ is parallel to ‘these things, e.g. bricks and stones’ at 1041^a26–7. Aristotle is sticking here to his insistence that the genus is the matter for the species, so that we could take the subject of which *F* is predicated to be either the matter of *F* (in the ordinary

⁵⁸ Accepting (with Ross and Jaeger) Christ’s τὴν ὕλην ζητεῖ διὰ τί <τὶ> ἐστίν, and taking ‘τὴν ὕλην ζητεῖ...’ as the ‘lilies of the field construction’. It is not obvious what the subject of ζητεῖ is.

⁵⁹ Accepting (with Christ and Frede-Patzig) Bonitz’ conjecture ὡδὶ ἔχον for τοδί ἔχον. (However, I do not think Bonitz and Christ and Frede-Patzig are right to say that this is supported by ps.-Alexander 541. 32–4.)

⁶⁰ With Christ (and Jaeger and Frede-Patzig) bracketing τοῦτο δ’ ἐστὶ τὸ εἶδος. The transmitted text might be defended, following a suggestion of A. Laks reported by M. Burnyeat (*A Map of Metaphysics Zeta [Map]* (Pittsburgh, 2001), 60 n. 124), if we construe ‘the cause of the matter, namely the form by which it is something’ (this is in fact the construal implied by the punctuation in Bekker, but not in Bonitz or Ross). But it is difficult to describe the form simply as the cause of the matter, rather than the cause by which the matter is something.

⁶¹ Most editors print the reading of JE, ὁ ἄνθρωπος; Ross however prints ἄνθρωπος. Ross’ intended construal is thus that of JE, not that of A^bM; but if he is right, Aristotle wrote the ambiguous ANΘΡΩΠΙΟC, and in that case I think the construal without the article is much more plausible.

sense) or the genus of F . Indeed, this is not supposed to be merely an analogy: his programmatic view in *ZH*, never fully worked out, is that if we describe the matter appropriately, and if we describe the genus appropriately, they will be the same thing, as something like ‘plane figure’ or ‘two-dimensional extension’ is the genus and matter of pentagon, the letters β and a collectively are the genus and matter of the syllable βa (the differentia would be ‘with the β before the a ’), and organic natural body, natural body, and body are the successively more general genera or matters of living thing. (As we will see, in *H. 2* he takes ‘differentia’ as correlative to ‘matter’ rather than, as usual, to ‘genus’.)⁶² In either case ‘ F ’ remains in predicate position. If F cannot be taken as a predicate of anything, ‘it is clear that there is no investigation or teaching in the case of simples, but rather a different mode of investigating such things’ (φανερὸν τοίνυν ὅτι ἐπὶ τῶν ἀπλῶν οὐκ ἔστι ζήτησις οὐδὲ διδασίς, ἀλλ’ ἕτερος τρόπος τῆς ζητήσεως τῶν τοιούτων, *Z. 17*, 1041^b9–11, the immediate follow-up to saying that we seek the *ousia* of F by investigating why the matter is F , 1041^b5–9 as cited above).⁶³

Now Owen, in ‘Aristotle on the Snares of Ontology’, tried to break the connection between the *Metaphysics*’ investigation of being (and especially of being as substance) and the *Posterior Analytics*’ account of the whether-it-is and what-it-is questions. Owen tried to distinguish two senses of 1-place being in Aristotle, being* and being**, which he admitted that Aristotle never quite disentangled. Being**, the object of the *Posterior Analytics*’ whether-it-is question, might be expressed by the existential quantifier, so that F is** iff something is F ; but being*, which Owen took to be the sense of ‘being *per se*’ in *Metaphysics A. 7*, is something more robust, such that for living things to be* is for them to live: for F to be* is for F to be G , where G is always an essential predicate of F (the *infima species*? the category as the highest genus of F ?). Owen took *Metaphysics H. 2*, in particular, to say that ‘a threshold *is*, in that it is situated thus and so: “to be” means

⁶² On genus and matter, see ‘*Metaphysics Z. 10–16*’, 133 n. 53 and the text above it. I give a much fuller discussion in *The Aim and the Argument* IIδ–ε.

⁶³ Presumably the ‘different mode of investigating’ is not properly speaking investigating the simple thing F , i.e. starting from F and determining its essence, but either starting from something else G and reaching the simple thing F (as some sort of cause of G , perhaps a constituent in its account), or else starting from a vaguer description of F and reaching the conclusion that F is simple and cannot be further determined. See further discussion below.

its being so situated. And that ice *is* means that it is solidified in such and such a way' (Owen's translation of *H.* 2, 1042^b26–8, at 264—I will come back to the issues of text and construal in this passage). Owen resorted to extraordinary measures to deny the relevance of the *Posterior Analytics*, or of anything like a quantifier-analysis of existence, to *ZH*. He speaks of the *Analytics*' 'hesitations over existential statements' (271), and says condescendingly (270) that it 'draws a formal distinction between the question *whether A exists* and the question *what A is*, and even, at the start of one tangled argument, treats the second question as arising after the first has been settled (89^b34–90^a1)', although 'it amends this later' (at 93^a21–33, which does nothing of the kind—it merely says that to know that thunder exists we must know that is a noise in the clouds). Owen manages throughout his article never to mention *Metaphysics Z.* 17, which would have made it obvious that Aristotle takes the 'tangled argument' of *Posterior Analytics* 2 as the key to understanding the relationship between *that F is* and *what F is*, and so to discovering the *ousia* of *F*.

Owen notwithstanding, *H.* 2 is part of a carefully developed continuous argument, *Z.* 17–*H.* 6, which applies the 'new start' of *Z.* 17 to show how to give the account of a given thing *F*, and to solve the *aporiai* against the possibility of definition.⁶⁴ This does not mean that *H* is simply applying the idea that the *ousia* of a thing is the form as the cause of unity to its many material constituents, but, as I argued in '*Metaphysics Z.* 10–16', that is not the main thesis of *Z.* 17. *Z.* 17 asserts that the *ousia* of *F* is the cause, to the *per se* subject of *F*, of its being *F*, and that this cause will be neither an element of *F*, nor itself composed of elements. It does not say that the *ousia* of *F* is, in general, the cause of unity to the many elements of *F*. In general, as we know from *Z.* 12, the *ousia* of *F* is the (ultimate) differentia of *F*, and this is sometimes, but not always, the cause of unity to many elements: the differentia of $\beta\alpha$ will be the cause of this β and this α being a single syllable and not simply two elements (i.e. letters or phonemes), but in a straight genus-differentia definition as described in *Z.* 12 ('definitions by division' ($\tau\acute{\omega}\nu$ κατὰ τὰς διαίρεσεις ὀρισμῶν), *Z.* 12, 1037^b27–9) the highest genus and the intermediate differentiae are already unified

⁶⁴ I give a quick description of how all this works in '*Metaphysics Z.* 10–16', and a fuller discussion in *The Aim and the Argument* IIε. Burnyeat in *Map* reached partly similar conclusions about *H* and its relation to *Z.* 17.

by themselves (each differentia entails the higher genera and differentiae) and so do not need the ultimate differentia to unify them. However, the case where the *ousia* of *F* is the cause of unity to the many elements of *F* is useful for Aristotle, since in this case infinite regress arguments make it especially obvious that this cause can neither be one more element of *F* (for it would need a further cause to unite it with the other elements), nor be itself composed of elements (for these would need a further cause to unite them with each other). Part of what it means to say that the *ousia* of *F* is not a further element of *F*, added to the matter or the genus or the plurality of other elements of *F*, is that the *ousia* of *F* is not something which could exist independently of this other element or of these other elements and would then need to be added to it/them: rather, the *ousia* of *F* is inseparable from the element(s) as snub is inseparable from nose, can exist only when predicated of it/them, and does not need anything else to unite it to it/them. And, as we know from *Z.* 12, the ultimate differentia of *F* is inseparable from the genera and higher differentiae of *F* in this way.

In all this, Aristotle's negative emphasis is that we cannot discover the account of what *F* is by enumerating its elements (whether these are the material constituents of *F*, the kind of elements that the physicists would cite, or the genera of *F*, the elements that the Platonist dialecticians would cite: for this way of putting the issue, see the sixth *aporia* of *Metaph. B*, at *B.* 3, 99^a20–^b14): such an enumeration can at best give us the *per se* subject of *F*, which is of itself potentially *F* but not of itself actually *F*. Aristotle's positive emphasis is that we can discover the account of what *F* is by first discovering the *per se* subject of *F* (whether we think of this as the matter or the genus of *F*) and then investigating the cause why this is *F*. The point that emerges from *Z.* 17 is not just that the *ousia* of *F* is its form (if *Z.* 17 mentions form at all, it is only in 'τοῦτο δ' ἐστὶ τὸ εἶδος' at 1041^b8, which many editors delete as a gloss):⁶⁵ a Platonist opponent might agree that the *ousia* of a thing is its form, and yet think that this form is itself a element or composed of elements, since the form and matter might be conceived as elements combining to compose the thing, or the genera and differentiae might be conceived as elements combining to compose the species or form. Nor is the point just that the *ousia* of *F* is the ultimate differentia of

⁶⁵ See n. 60 above.

F, since even this might be conceived as a further element added to the genera and higher differentiae: ‘nor is man animal and biped, but there must be something beside these, if these are matter, something which is neither an element nor [composed] out of an element, but the *ousia*; but they leave this out, and state [only] the matter’ (*H.* 3, 1043^b10–13).⁶⁶ But if we first find the *S* which is the appropriate subject of *F*, and then find the differentia which explains why (this) *S* is *F*, the differentia should be inseparable from *S* as snub from nose. And this is how *Metaphysics H* proceeds. *H.* 1, after the recapitulation of results 1042^a3–24, says how to find the matter of *F*, broadly distinguishing matter for local motion from matter for generation and corruption (*H.* 4 says much more about how to specify the ‘appropriate matter’ (ὄλη οἰκεία) of each thing). Then *H.* 2 says that ‘since the *ousia* as subject and as matter is agreed, and this is what is potentially [i.e. potentially *ousia*, or potentially *F*], it remains to say what the *ousia* as actuality of the sensibles is’.⁶⁷ And Aristotle says, not as we might expect that this is the form, but that it is the differentia, and he immediately stresses, against attempts to reduce the list, that there are diverse kinds of differentiae appropriate to different things:

οἷον τὰ μὲν συνθέσει λέγεται τῆς ὕλης, ὡσπερ ὅσα κράσει καθάπερ μελίκρατον, τὰ δὲ δεσμῶ οἷον φάκελος, τὰ δὲ κόλλῃ οἷον βιβλίον, τὰ δὲ γόμφῳ οἷον κιβώτιον, τὰ δὲ πλείοσι τούτων, τὰ δὲ θέσει οἷον οὐδὸς καὶ ὑπέρθυρον (ταῦτα γὰρ τῶ κεῖσθαι πως διαφέρει), τὰ δὲ χρόνῳ οἷον δεῖπνον καὶ ἄριστον, τὰ δὲ τόπῳ οἷον τὰ πνεύματα· τὰ δὲ τοῖς τῶν αἰσθητῶν πάθεισιν οἷον σκληρότητι καὶ μαλακότητι, καὶ πυκνότητι καὶ μανότητι, καὶ ξηρότητι καὶ ὑγρότητι, καὶ τὰ μὲν ἐνίοις τούτων τὰ δὲ πᾶσι τούτοις, καὶ ὅλως τὰ μὲν ὑπεροχῇ τὰ δὲ ἐλλείψει. (1042^b15–25)

some things are said through the composition of the matter, as whatever are said through blending, like honey-water; other things are said through tying, like a bundle; others by gluing, like a book [i.e. a scroll]; others by nailing, like a box; others by several of these; others by position, like a threshold and a lintel [at the bottom and top of a doorway respectively], for these differ by being placed [κεῖσθαι] in a certain way; others by time, like dinner and breakfast; others by place, like the winds; others by

⁶⁶ οὐδὲ δὴ ὁ ἀνθρωπὸς ἐστὶ τὸ ζῶον καὶ <τὸ> δίπουν, ἀλλὰ τι δεῖ εἶναι ὁ παρὰ ταῦτα ἐστὶν, εἰ ταῦθ' ὕλη, οὔτε δὲ στοιχείον οὔτ' ἐκ στοιχείου, ἀλλ' ἡ οὐσία ὁ ἐξαιρουντες τὴν ὕλην λέγουσιν.

⁶⁷ 1042^b9–11: ἐπεὶ δ' ἡ μὲν ὡς ὑποκειμένη καὶ ὡς ὕλη οὐσία ὁμολογεῖται, αὐτῇ δ' ἐστὶν ἡ δυνάμει, λοιπὸν τὴν ὡς ἐνέργειαν οὐσίαν τῶν αἰσθητῶν εἰπεῖν τίς ἐστὶν.

affections of the sensibles like hardness and softness, denseness and rareness, dryness and wetness, and some by some of these and some by all of these, and, in general, some by excess and some by deficiency.

Quite a few of these differentiae (blending, tying, gluing, nailing) are causes of unity to plural subjects, but the other examples are not, and all of these differentiae are on the same footing.

This, then, is the context for the comment which Owen took as his main (only?) support in the *Metaphysics*⁶⁸ for the concept of being*, where for *F* to be* is for *F* to be *G*, where *G* is some essential predicate of *F*: ‘so it is clear that “is”, too, is said in so many ways [as there are kinds of differentia]. A threshold *is*, in that it is situated thus and so: “to be” means its being so situated. And that ice *is* means that it is solidified in such and such a way’ (*H.* 2, 1042^b25–8), where I am quoting Owen’s translation (‘Snares of Ontology’, 264), except for the first sentence, which he does not translate. Now this passage of *H.* 2 has several textual and interpretive difficulties, some of which Owen mentions in a footnote. At least manuscripts EJA^b have

ὥστε δῆλον ὅτι καὶ τὸ ἔστι τοσαυταχῶς λέγεται· οὐδὸς γὰρ ἔστιν ὅτι οὕτως κείται, καὶ τὸ εἶναι τὸ οὕτως αὐτὸ κείσθαι σημαίνει, καὶ τὸ κρύσταλλον εἶναι τὸ οὕτω πεπικνωσθαι. (*H.* 2, 1042^b25–8)

So it is clear that ‘is’ too is said in so many ways: for a threshold *is* [or: it is a threshold] because it is placed in this way, and [for it] to be signifies that it is placed in this way, and for ice to be [or: to be ice] [signifies] that has been condensed in this way.

Owen agrees with Ross, I think rightly, in defending this transmitted text and rejecting the emendations proposed by Bonitz and Jaeger, which would read in technical phrases like τὸ κρυστάλλω εἶναι, the ‘essence-of-ice’.⁶⁹ But it remains unclear what the subjects of ‘to be placed’ and ‘to be condensed’ are, and whether the

⁶⁸ There is also *De Anima* 2. 4, 415^b13, cited in Section 4 above.

⁶⁹ Bonitz, followed by Jaeger, emended τὸ κρύσταλλον εἶναι to τὸ κρυστάλλω εἶναι. Bonitz was also uncomfortable with τὸ εἶναι τὸ οὕτως αὐτὸ κείσθαι σημαίνει, in part because οὐδός, to which αὐτό seems to refer back, is masculine rather than neuter: he printed the transmitted text but suggested reading instead τὸ εἶναι αὐτῷ τὸ οὕτως κείσθαι σημαίνει; Jaeger prints instead τὸ εἶναι <οὐδῶ> τὸ οὕτως αὐτὸ κείσθαι σημαίνει. (I don’t understand why Jaeger’s apparatus suggests that Bonitz supports this.) Jaeger may be right that pseudo-Alexander 548. 36–7 supports his text, but it is not clear whether τὸ εἶναι οὐδῶ at 548. 36 is what the pseudo-Alexander read or just his paraphrase, and τὸ κρυστάλλω εἶναι at 548. 37 is supported by a single manuscript of

forms of ‘to be’ are existential or predicative, ‘a threshold exists’ or ‘it is a threshold’, ‘for ice to exist’ or ‘for it to be ice’. Owen favours the existential reading, which he says is supported by the passage a few lines below, ‘if indeed the *ousia* is a cause of each thing’s being [*or*: of being each thing], we must investigate in these cases what is the cause of each of these things’ being [*or*: of being each of these things]’ (1043^a2–4),⁷⁰ and indeed he is probably right both that ‘being’ in this latter passage is existential, and that it supports the existential reading in the earlier passage. But what 1043^a2–4 also brings out is that Aristotle is immediately relying on *Z. 17*, which is in turn relying on the *Posterior Analytics*, and that *Z. 17* and the *Posterior Analytics* take the *ousia* of *F*, the cause of *F*’s being, as the cause of *S*’s being *F*, or the cause of *S*’s being *P* if *F* can be spelled out as *SP*. As Aristotle says a few lines further on,

εἰ οὐδὸν δεῖο ὀρίσασθαι, ξύλον ἢ λίθον ὡδὶ κείμενον ἐροῦμεν, καὶ οἰκίαν πλίνθους καὶ ξύλα ὡδὶ κείμενα (ἢ ἔτι καὶ τὸ οὐ ἔνεκα ἐπ’ ἐνίων ἔστιν), εἰ δὲ κρύσταλλον, ὕδωρ πεπηγὸς ἢ πεπυκνωμένον ὡδί. συμφωνία δὲ ὀξέος καὶ βαρέος μίξις τοιαδί· (1043^a7–10)

if we have to define threshold, we will say [that it is] wood or stone placed [*κείμενα*] in this way, and that a house is bricks and logs placed in this way (or in some cases also it is that for the sake of which); if ice, water that has been solidified [*πεπηγὸς*] or condensed [*πεπυκνωμένον*] in this way; harmony, thus-and-such a mixture of high and low.

So, as for harmony to be is for high and low to be harmonized, i.e. to be mixed in a particular way, so for ice to be is for water to be ice, i.e. for water to have been solidified or condensed in a particular way—and not, as Owen says, for *ice* to be solidified in this way.⁷¹ And we will spell out the definitions further, filling in the ‘in this way’ or ‘thus-and-such’, by citing a further cause for *S*’s being *P* and thus *F*, e.g. for the high and low to be mixed harmoniously is for them to be mixed according to a multiple or epimoric ratio (see *Post. An. 2. 2*, 90^a18–23). So when the *Posterior Analytics* is

the 16th (!) century, the other manuscripts having τὸ κρύσταλλον εἶναι. For Owen on the textual question, see ‘Snares of Ontology’, 264 n. 10.

⁷⁰ ἔπερ ἡ οὐσία αἰτία τοῦ εἶναι ἕκαστον, [ὅτι] ἐν τούτοις ζητητέον τί τὸ αἷτιον τοῦ εἶναι τούτων ἕκαστον.

⁷¹ Here I think I am entirely in agreement with David Charles, in the article cited above. Owen explicitly rejects this reading of *H. 2*, and the more general interpretation of 1-place being that goes with it, at ‘Snares of Ontology’, 268 and 274.

arguing that the middle term is the cause not only of (1-place) being but also of (1-place) becoming and past and future being,

τί ἐστι κρύσταλλος; εἰλήφθω δὴ ὅτι ὕδωρ πεπηγός. ὕδωρ ἐφ' οὗ Γ, πεπηγός ἐφ' οὗ Α, αἴτιον τὸ μέσον ἐφ' οὗ Β, ἐκλείψις θερμοῦ παντελῆς. ὑπάρχει δὴ τῷ Γ τὸ Β, τούτῳ δὲ τὸ πεπηγέναι τὸ ἐφ' οὗ Α. γίνεται δὲ κρύσταλλος γινομένου τοῦ Β, γεγένηται δὲ γεγενημένου, ἔσται δ' ἔσομένου. (2. 12, 95^a16–21)

What is ice? Let it be assumed that it is solidified water. Let C be water, let A be solidified, and let the middle B be the cause, the complete departure of heat. Then B belongs to C, and A, having-been-solidified, belongs to B [and thus A belongs to C, and thus there is ice]. And ice comes-to-be when B comes-to-be, and has come-to-be⁷² when B has come-to-be, and will be when B will be.⁷³

So for ice to be is for water (not ice) to have been solidified in a certain way, and the *ousia* of ice will be given by the ultimate differentia which determines the particular way in which the water is solidified, namely by the influence on water (not on ice) of the complete departure of heat. So *H. 2* gives no support to Owen's claim that Aristotle is interested in a notion of being*, where for *F* to be* is for it to be *G*, for ice to be* is for it to be solidified; rather, he is working with the familiar notion of being** from the *Posterior Analytics*, where for *F* to be** is for some *S* to be *F*, or for some *S* to be *G* if *F* is equivalent to *SG*, for ice to be** is for some water to be ice, or to be solidified.⁷⁴

What is perhaps most curious is that Owen, in struggling against the grain of the Aristotelian texts, seems to have been guided by a principle of charity. It seems a strange application of charity to deny Aristotle an analysis of '*F* exists' as something like ' $\exists x Fx$ ', but Owen was following the fashion of the time, which denied that

⁷² Or 'has been', 'was', taking *γεγονέναι* as suppletive perfect of *εἶναι*.

⁷³ The examples of being and coming-to-be here are 1-place; even clearer in the parallel example just above, 2. 12, 95^a14–16, of why an eclipse *γέγονεν*, *γίνεται*, and *ἔσται*.

⁷⁴ *H. 4* also makes clear that Aristotle is relying on the *Posterior Analytics* account of being** and of the *ousia* of a thing (given in its scientific definition) as the cause of its being**, rather than turning to a new notion of being*. The overall point of the discussion of the four kinds of cause at *H. 4*, 1044^a32–b20 is not just that we must cite all the causes in order to *explain* something, but that we must cite them to *define* something, whether a substance (1044^a34–b8) or a non-substance (1044^b8–20): he develops the example of the eclipse in the same way as in the *Posterior Analytics*, and says that 'the [cause] as form is the account, but it is unclear unless the account is accompanied by the cause' (τὸ δ' ὡς εἶδος ὁ λόγος, ἀλλὰ ἄδηλος ἐὰν μὴ μετὰ τῆς αἰτίας ἦ ὁ λόγος, 1044^b12–13).

such formal analyses were adequate to ordinary language and experience, and insisted that things owed their existence and identity to the sortals under which they fell. However, before we get too charitable to Aristotle, it is important to note some differences between his analysis of existence and Frege's. First, Aristotle does not use anything like an unrestricted existential quantifier: he analyses '*F* exists' not as 'something is *F*' but as 'some *S* is *F*', quantifying over the range of things that are capable of being *F*. Second, Aristotle is not very interested in the quantifier-word 'some', and often says just '*S* is *F*' rather than 'some *S* is *F*'—as we would expect, given that he takes the default-meaning of '*S* is *F*' to be equivalent to 'some *S* is *F*'.⁷⁵ Third, Aristotle does not draw Frege's distinction between object-words and concept-words, but (with some caveats) allows any term to stand in both subject and predicate positions; so existence can be predicated of anything, not just of 'concepts', and Aristotle is not saying that it is a 'second-order concept'. When he says that *F* exists because some *S* exists and is *F*, he is not eliminating the apparent use of 'exists' as a first-order predicate, but rather showing how the derivative existence of *F* depends on the primitive existence of some *S*.

But this raises a deeper issue: in what sense is Aristotle *analysing* the judgement '*F* exists'? He intends his account of the whether-it-is and what-it-is investigations to hold equally for substance and non-substance cases, and especially in the *Metaphysics* the non-substance cases are developed chiefly as a model for the harder but more interesting substance cases. So in *H.* 2, after going through a list of things and their differentiae, 'none of these things is a substance, even when taken together [with the matter], but they are what is analogous [to substance] in each case; and as in substances what is predicated of the matter is the actuality itself, so too in the other definitions [the predicate rather than the subject is] especially

⁷⁵ See for instance *De Interpretatione* 7, esp. 17^b26–37, where 'it is simultaneously true to say that man is white and that man is not white' (ἄμα γὰρ ἀληθές ἐστὶν εἰπεῖν ὅτι ἐστὶν ἄνθρωπος λευκός καὶ ὅτι οὐκ ἐστὶν ἄνθρωπος λευκός, 17^b30–2). The *Prior Analytics* refers repeatedly to these 'indeterminate' (ἀδιόριστα) propositions, i.e. propositions with a universal subject-term with neither a universal sign (such as 'every' or 'no') nor a particular sign (such as 'some' or 'a'). Aristotle gives some examples of indeterminate propositions which are not equivalent to particular propositions, such as 'of contraries the science is the same' (τὸ τῶν ἐναντίων εἶναι τὴν αὐτῆν ἐπιστήμην, *Pr. An.* 1. 1, 24^a21), but it invariably turns out that in syllogisms an indeterminate premiss adds no more force than the corresponding particular premiss.

[the actuality]’ (1043^a4–7).⁷⁶ But if *F* is a substance and *S* is the matter it is predicated of, surely Aristotle cannot want to analyse the existence of *F* as depending on the more primitive existence of *S*. In fact, his direction of analysis is the reverse. Recall that, when Aristotle analyses the existence of (say) a quality as derivative from that of its substantial subject, he can analyse either ‘*F* exists’ where ‘*F*’ is an abstract quality-term such as ‘literacy’, or ‘*F** exists’ where ‘*F**’ is the paronymous concrete term, such as ‘literate’. *F** exists, concretely not *per se*, because *S* exists *per se* and is *F**; *F* also exists, abstractly not *per se*, because *S* exists *per se* and is *F**, and the existence of *F* is derivative from the existence of *F** which is in turn derivative from the existence of *S*. But *Metaphysics* Θ. 7 says that matter has the same status as qualities, that is, that it exists abstractly not *per se*:

ἔοικε δὲ ὁ λέγομεν εἶναι οὐ τὸδε ἀλλ’ ἐκείνιν—οἷον τὸ κιβώτιον οὐ ξύλον ἀλλὰ ξύλινον, οὐδὲ τὸ ξύλον γῆ ἀλλὰ γῆνιν, πάλιν ἢ γῆ εἰ οὕτως μὴ ἄλλο ἀλλὰ ἐκείνιν—αἰ ἐκείνο δυνάμει ἀπλῶς τὸ ὕστερόν ἐστιν. οἷον τὸ κιβώτιον οὐ γῆνιν οὐδὲ γῆ ἀλλὰ ξύλινον· τούτο γὰρ δυνάμει κιβώτιον καὶ ὕλη κιβωτίου αὕτη, ἀπλῶς μὲν τοῦ ἀπλῶς τοῦδὲ δὲ τοῦδὲ τὸ ξύλον. εἰ δὲ τί ἐστι πρῶτον ὁ μηκέτι κατ’ ἄλλο λέγεται ἐκείνιν, τούτο πρώτη ὕλη· οἷον εἰ ἡ γῆ ἀερῖνη, ὁ δ’ ἀήρ μὴ πῦρ ἀλλὰ πύρνωσ, τὸ πῦρ ὕλη πρώτη οὐ τὸδε τι οὐσα. τούτῳ γὰρ διαφέρει τὸ καθ’ οὐ καὶ τὸ ὑποκείμενον, τῶ εἶναι τὸδε τι ἢ μὴ εἶναι· οἷον τοῖς πάθεσι τὸ ὑποκείμενον ἄνθρωπος, καὶ σῶμα καὶ ψυχῆ, πάθος δὲ τὸ μουσικὸν καὶ λευκόν (λέγεται δὲ τῆς μουσικῆς ἐγγενομένης ἐκείνο οὐ μουσική ἀλλὰ μουσικόν, καὶ οὐ λευκότης ὁ ἄνθρωπος ἀλλὰ λευκόν, οὐδὲ βᾶδις ἢ κίνησις ἀλλὰ βαδίζον ἢ κινούμενον, ὡς τὸ ἐκείνιν)—ὅσα μὲν οὖν οὕτω, τὸ ἔσχατον οὐσία· ὅσα δὲ μὴ οὕτως ἀλλ’ εἶδος τι καὶ τὸδε τι τὸ κατηγορούμενον, τὸ ἔσχατον ὕλη καὶ οὐσία ὕλική. καὶ ὁρθῶς δὴ συμβαίνει τὸ ἐκείνιν λέγεσθαι κατὰ τὴν ὕλην καὶ τὰ πάθη· ἄμφω γὰρ ἀόριστα. (1049^a18–^b2)⁷⁷

It seems that what we call not *this* [τόδε] but *that-en* [ἐκείνιν]—as the box is not wood but wooden, and the wood is not earth but earthen, and [likewise] if the earth too is not something else but something-else-en—*that* [ἐκείνο, e.g. the wood] is *simpliciter* potentially the posterior thing

⁷⁶ οὐσία μὲν οὖν οὐδὲν τούτων οὐδὲ συνδναζόμενον, ὅμως δὲ τὸ ἀνάλογον ἐν ἐκάστῳ· καὶ ὡς ἐν ταῖς οὐσίαις τὸ τῆς ὕλης κατηγορούμενον αὐτῇ ἢ ἐνέργεια, καὶ ἐν τοῖς ἄλλοις ὀρίμοις μάλιστα. There are several construal difficulties in this passage, but they will not affect the point that *H. 2* has been interested in non-substance examples of subject-differentia definition chiefly as analogical models for defining substances.

⁷⁷ Here too there are a number of textual issues, but I agree with both Ross and Jaeger on the main ones: A^b’s κατ’ ἄλλο rather than JE’s κατ’ ἄλλου at ^a25, JE’s ἐκείνιν rather than A^b’s ἐκείνο ὄν in the same line, JE’s οὐ τὸδε τι οὐσα rather than A^b’s εἰ δὲ τὸδε τι, οὐσία at ^a27, and Apelt’s emendation τὸ καθ’ οὐ for the manuscript τὸ καθόλου at ^a28.

[e.g. the box]. Thus the box is not earthen or earth, but wooden, for this [sc. wood] is potentially a box and this is the matter of a box, wood *simpliciter* of box *simpliciter* and *this* wood of *this* box. And if there is some first thing which is no longer called that-en with respect to something else, this is first matter: thus if earth is air-y, and air is not fire but fier-y, fire would be the first matter, not being a this. For that-of-which [$\tau\acute{o}$ καθ' οὗ], i.e. the subject, differs, in that one [subject] is a this and another is not. Thus man, both body and soul, is the subject of the affections,⁷⁸ and musical or white is an affection (when music has come-to-be-in [the subject], [the subject] is called not music but musical, and the man is called not whiteness but white, not a walk or a motion but walking or moving, as being that-en). So in cases of this kind [sc. where the subject is a this, and is called paronymously from the affection] the ultimate thing is a substance: but in the other kind of case, where what is predicated is a form and a this, the ultimate thing is matter and substance-in-the-sense-of-matter. And the result is correct that 'that-en' is said both with respect to the matter and with respect to the affections: for both are indeterminate.

Here the made-up pro-adjective 'that-en' [$\acute{\epsilon}\kappa\epsilon\acute{\iota}\nu\iota\nu\omicron\nu$] stands in for any paronymous term, whether it is formed by adding *-ινον* on the end or in any other way. Aristotle's main controversial claim is that when *S* has become *T*, where *S* is the matter of *T* and this is a genuine substantial change, *T* should not be called *S*, but only *S**, using the appropriate paronymous term.⁷⁹ Uncontroversially, when Socrates has become white or musical, he continues to be called *S* (Socrates), but is called *F** (white or musical, not whiteness or music); and this is a linguistic reflection of the fact that '*S*' signifies what he is [$\tau\acute{\iota}$ ἐστίν] whereas '*F*' signifies only what he is like [$\pi\omicron\lambda\acute{o}\nu$ ἐστίν]. Aristotle is saying that while this is true for accidental changes, it is not true for substantial changes. His target here is the *Timaeus*, which says that if someone shapes gold into triangles and other shapes and 'if someone pointed to one of them and asked what it is, by far the safest in respect of truth would be to say that it is gold, and as for the triangle and all the other figures that arise

⁷⁸ Reading Jaeger's comma after $\acute{\alpha}\nu\theta\rho\omega\pi\omicron\varsigma$; otherwise 'man and body and soul'. (Jaeger's idea is that the human soul is the subject of music and the human body is the subject of whiteness.)

⁷⁹ He is also claiming that 'is the matter of' or 'is potentially' is not transitive: if *R* is the matter of *S* and *S* is the matter of *T*, then if it were correct to say that *T* is *S* and that *S* is *R* it would also be correct to say that *T* is *R*; but since it is correct only to say that *T* is *S** and that *S* is *R**, it does not follow even that *T* is *R**, let alone that it is *R*.

in it, never to say “these things are” . . . but rather to be content if they will accept “such” with some stability’ (50^a7–b⁵):⁸⁰ thus ‘gold’ signifies what they are, while ‘triangle’ signifies only what they are like, and they should correctly be called triangular rather than triangles. Aristotle need not disagree with any of this in the case of the gold becoming triangular, since this is probably just an accidental change, but Plato is taking gold’s coming-to-be triangular as a model for the coming-to-be of earth, water, air and fire, and saying that the correct answer to ‘what is it?’ asked of any of them is their common matter, the ‘receptacle’, and that within the sensible realm only this ultimate material principle is properly called ‘this’ (*Tim.* 49^a6–50^a4). Aristotle attacks this passage directly in *On Generation and Corruption*: ‘things which have alteration are like this, but things that have [unqualified] coming-to-be and passing-away cannot be called [by the name of] that from which they came-to-be; but nonetheless he says that ‘by far the truest is to say that each of these is gold’.⁸¹ His claim, then, is that if gold’s coming-to-be triangular is genuine substantial change, then if we ask ‘what is it?’ of the result, the correct answer is ‘triangle’, and it is correctly called triangle rather than triangular, whereas ‘gold’ signifies only what it is like, and it is correctly called golden rather than gold. The matter for substantial change thus has the same status as music or whiteness, signifying what something is like rather than what it is, or being a ‘such’ rather than a ‘this’: ‘the result is correct that “that-en” is said both with respect to the matter and with respect to the affections: for both are indeterminate’ (*Metaph. Θ.* 7, 1049^a36–b², quoted above). The paronymous expression ‘musical’ or ‘golden’ is correct, because to call something musical or golden does not determine what it is. But if the musical or the golden exists, there must be *something* which is musical or golden; in Aristotle’s terminology the musical or golden, *being something else*, is musical or golden. So the musical or the golden exists concretely not *per se*, because some substance exists and is musical or golden; and music

⁸⁰ δεικνύντος δὴ τίνος αὐτῶν ἐν καὶ ἐρομένου τί ποτ’ ἐστί, μακρῶ πρὸς ἀλήθειαν ἀσφαλέστατον εἰπεῖν ὅτι χρυσός, τὸ δὲ τρίγωνον ὅσα τε ἄλλα σχήματα ἐνεγίγνετο, μηδέποτε λέγειν ταῦτα ὡς ὄντα. . . ἀλλ’ ἐὰν ἄρα καὶ τὸ τοιοῦτον μετ’ ἀσφαλείας ἐβέλη δέχεσθαι τίνος, ἀγαπᾶν.

⁸¹ *GC* 2. 1, 329^a18–21: ὃν μὲν ἀλλοιώσις ἐστίν, οὕτως, ὃν δὲ γένεσις καὶ φθορά, ἀδύνατον ἐκείνο προσαγορεύεσθαι ἐξ οὗ γέγονεν· καίτοι γέ φησι μακρῶ ἀληθέστατον εἶναι χρυσὸν λέγειν ἕκαστον εἶναι.

or gold exists abstractly not *per se*, again because some substance exists and is musical or golden. So, to return to our question, Aristotle cannot say that the composite substance exists because this matter exists and has this form; he thinks the reverse, that the matter exists because this composite substance exists and is composed out of this matter.

Nonetheless, *Metaphysics H* makes it clear that when *F* is a substance, as when *F* is an accident, we will find the *ousia* of *F* by finding the cause for *F*'s existing, and that we will do this by first finding the *per se* subject of *F*, call it *S* (if *F* is a substance, *S* will be its appropriate matter), rewriting '*F* exists' as '*S* is *F*', and investigating the cause for *S*'s being *F*. So what Aristotle must think is that '[some] *S* is *F*' or '[some] *S* exists and is *F*' is, in the case where *F* is a substance, not an *analysis* of '*F* exists' into something more fundamental, but simply an equivalent that makes '*F* exists' amenable to causal analysis. Not every judgement of the form '*F* exists' has such a 2-place equivalent: notably, if *F* is a simple immaterial substance, it does not. This does not imply that the judgement '*F* exists' in these cases is meaningless, or that the grammatical form in which it is expressed is misleading as to its logical form. It does, however, imply that it is immune to causal analysis. 'It is clear that there is no investigation or teaching in the case of simples, but rather a different mode of investigating such things' (*Metaph. Z. 17, 1041^b9–11*, quoted above)—that is, we investigate some complex effect and trace it back to a simple principle, which cannot itself be investigated further. As Aristotle says later, 'those things which are just a being [*ὅπερ εἶναι τι*] and an actuality, about such things there is no being deceived, but rather either thinking them or not; but "what is it?" is investigated about them, whether they are such or not' (*Θ. 10, 1051^b30–3*):⁸² the only way to 'investigate' such a simple substance, beginning perhaps with a relational description like 'the mover of the sun's zodiacal motion', is to investigate whether it *is* a simple substance, and, if the answer is yes, the investigation ceases. There is no scientific definition of such things, and there is no cause for their existing. The thesis that none of the many movers of the many heavenly

⁸² ὅσα δὴ ἔστιν ὅπερ εἶναι τι καὶ ἐνέργεια, περὶ ταῦτα οὐκ ἔστιν ἀπατηθῆναι ἀλλ' ἢ νοεῖν ἢ μὴ; ἀλλὰ τὸ τί ἔστι ζητεῖται περὶ αὐτῶν, εἰ τοιαῦτά ἐστιν ἢ μὴ. I take 'whether they are such or not' to mean 'whether they are simples [i.e. just a being and an actuality] or not'.

motions have a cause for their existing is unacceptable to Avicenna or St. Thomas, but it is what Aristotle thinks. But the right conclusion is not that Aristotle has no concept of existence or is not looking for causes of existence, but that he has a way of thinking about existence that leads him to the conclusion that non-composite things do not have causes of their existing. And this is precisely what leads Avicenna and Thomas to prefer a different way of thinking about existence, on which, with Plato and against Aristotle, we will explain the fact that *F* exists, not by finding a cause that supplies *F*-ness to something which is not of itself *F*, but by finding a cause that supplies existence to an *F* that does not of itself exist.

7. From Δ . 7 to Θ : causes of being in potentiality and in actuality

The investigation of the causes of being in the sense divided into the categories, and in the first instance the causes of being as substance, leads us to real causes and to a real science, but not to wisdom, since it does not lead us to separately existing eternal causes. The form of a composite substance is inseparable from the matter and exists only as long as the composite does (species-forms are eternal but non-substantial and exist derivatively from the existence of individuals), and the matter itself does not exist separately, but derivatively from the existence of the composite. Consequently, at the end of *ZH*, we need some different direction to get us to the desired principles, knowledge of which will constitute a wisdom beyond physics. But this does not mean—as it might well seem to—that we must give up on the project of looking for the principles as causes of being, since there are also further senses of being whose causes can be investigated. And this is why Aristotle adds, after what had seemed a comprehensive listing of the senses of being, ‘being also signifies what *is*, on the one hand potentially, on the other hand actually, [any] of these aforementioned [kinds of being]’ (Δ . 7, 1017^a35–^b2, quoted in Section 1), and adds at the end of Δ . 7 a section discussing these senses of being (1017^a35–^b9), designed to support *Metaphysics* Θ ’s new approach to the principles as causes of being in these senses. (It is striking that Δ . 7 ends with a clear reference forward to Θ . 7—‘when it is *dunaton* [i.e. when *S* is potentially *F*, or when *F* potentially exists] and

when it is not yet, let it be determined elsewhere' (πότε δὲ δυνατόν καὶ πότε οὐπω, ἐν ἄλλοις διοριστέον, 1017^b8–9; cf. *Θ.* 7, 1048^b37–1049^a1 and 1049^b2–3)—which has as far as I know never been denied even by those who think that Δ is not an intended part of the *Metaphysics*.)

Once again, the argument structure of this section of Δ. 7 is not at first sight clear: in particular, it is not clear either how 1-place and 2-place senses of being relate here, or how the senses of being described here relate to the senses of being divided according to the categories. And the argument structure of *Metaphysics Θ* is even less clear: it is not clear, notably, how the study of being-in-potentiality and being-in-actuality, announced at *Θ.* 1, 1045^b32–5, is related to the study of *dunamis*, powers, which occupies most of *Θ.* 1, *Θ.* 2, and *Θ.* 5. We can better understand both Δ. 7, 1017^a35–^b9 and *Θ* if we read them together, and if we see how the distinction between different senses of being is supposed to connect with a study of *causes* of being in these different senses, which will be candidates to be the principles that are the objects of wisdom.

The first thing to stress is that the concept of *dunamis*, in the sense of 'power', was already commonplace before Aristotle's time: e.g. the Hippocratic *On Ancient Medicine* speaks of powers in the human body which (in their interactions with powers in the nutriment and the environment) are the sources of health and disease, and Plato in the *Sophist* says that 'power either for acting or for being acted on' (δύναμιν εἶτ' εἰς τὸ ποιεῖν ἕτερον ὄτιοῦν... εἶτ' εἰς τὸ παθεῖν) is the mark of being (247 D 8–E 4). Furthermore, a power is a kind of principle: as Aristotle himself says, those powers which are so called not merely homonymously 'are all some principle, and are said in relation to a single first [kind of power], which is a principle of change in something other [than its bearer] or [in the bearer itself] *qua* other' (πᾶσαι ἀρχαὶ τινές εἰσι, καὶ πρὸς πρώτην μίαν λέγονται, ἣ ἐστὶν ἀρχὴ μεταβολῆς ἐν ἄλλῳ ἢ ἢ ἄλλο, *Metaph.* *Θ.* 1, 1046^a9–11, drawing on Δ. 12). Of course these need not be principles in the strict sense (they need not be prior in *ousia* to all other things), but it is an obvious question whether the principles in the strict sense are principles in this way, as powers, or in some other way. Aristotle seems to think that most of the physicists had thought of their first principles as powers or as potential causes (causes κατὰ δύναμιν), i.e. as the bearers of powers. To illustrate, the art of housebuilding is a power and the housebuilder, the bearer

of the art of housebuilding, is a potential cause, and both can be called causes of a house, but not in the same way as a housebuilder-housebuilding, who is an actual (*ἐνεργούν*) cause of a house (for these kinds of causes, see *Metaph. Δ. 2*, 1014^a19–25 and a bit more fully *Phys. 2. 3*, 195^b16–28); the art of housebuilding is an active power, and so it and its bearer are potential *efficient* causes, but presumably we can also say that a passive power and its bearer are potential *material* causes. It would be reasonable to say that, of the principles that Anaxagoras posits as existing before the ordered world, *Nous* is a potential efficient cause (it is not yet actually acting or making anything) and flesh and so on are potential material causes; we could say similar things about the demiurge and the receptacle of the *Timaeus*. Indeed, there is a plausible argument that whatever efficient and material principles there were before the world came to be must have been merely potential efficient and material causes, since if they were already acting in their characteristic ways they would already have produced a world. The question whether the first principles are powers (or bearers of powers) or rather are already acting causes (activities like the act of housebuilding or acting things like housebuilder-housebuilding) is equivalent to the question whether *dunamis* or *energeia* is prior: this is the question that, under various formulations, Aristotle raises in *B. 6*, 1002^b32–1003^a5 and tries to resolve in *Θ. 8* and *Δ. 6*. Aristotle's own view, of course, will be that the first principle has, indeed essentially *is*, an *energeia*, and is from eternity an always-already-acting cause.

Given this background, it is natural that Aristotle, in inquiring into the principles, would be interested in *dunamis* and in the contrasting kind of causes for which he develops the terminology of *energeia*:⁸³ it is natural, in particular, that he should discuss these kinds of (in a broad sense) principles and their priority-relations in *Θ*. Against this background, what is more striking and noteworthy is that Aristotle says that there are also distinct senses of *being dunamei* and *energeia(i)* (or as *Δ. 7* says, *entelecheia(i)*), and uses

⁸³ Although, contrary to what is often said, the term *ἐνεργεια* is probably attested before Aristotle: it is in a very plausible emendation in Alcidas, *On the Sophists* 28, accepted for instance in the edition by L. Radermacher in *Artium scriptores* (Vienna, 1951; the manuscript *ἐνεργησία* is odd but has been defended) for what living things have and their sculpted images do not. Alcidas uses the adjective *ἐνεργός* in *On the Sophists* 34.

these senses of being to integrate the discussion of *dunameis* as principles (and thus of whether the first of all things is a potential or an actual cause) into the *EZHΘ* programme of solving questions about the principles by investigating the causes of being in various senses. By contrast with the earlier discussions of *dunameis* as principles, the adverbial dative *dunamei* ‘potentially’ seems not to be found before Aristotle,⁸⁴ and while the phrase *kata [tēn] dunamin* certainly exists, as far as I know before Aristotle it always means ‘within the limits of one’s ability’, never ‘potentially rather than actually’.⁸⁵ In particular, nobody before Aristotle speaks of a sense of *being dunamei* or *kata dunamin*; nor, of course, do they speak of being ‘actually’, being in *energeia* or *entelecheia*, since this is the default sense of being and only needs terminology when there is a sense of being in *dunamis* to contrast it with. Indeed, while Aristotle says already in the *Protrepticus* that ‘to live seems to be said in two ways, in the sense of *dunamis* and in the sense of *energeia*’ (*φαίνεται διττῶς λέγεσθαι τὸ ζῆν, τὸ μὲν κατὰ δύναμιν τὸ δὲ κατ’ ἐνέργειαν*, B79 Düring), his meaning there is that ‘*S* lives’ means sometimes that *S* has a certain power, sometimes that *S* exercises that power by acting or being acted on in a certain way. Aristotle argues in *Protrepticus* B79–81 that we use the verbs ‘see’ and ‘sense’ and ‘know’ in these two ways (we say ‘*S* knows geometry’ in one sense even of a sleeping geometer, in another sense only of one who is using his knowledge to prove a theorem or construct a figure), and infers that ‘live’ also has this ambiguity (since to live is to sense or to know in some way) and that living in the sense of the *energeia* is living in the stricter sense. The ambiguity is in the verbs ‘see’, ‘sense’, ‘know’, ‘live’ or their participles, not in the verb ‘be’; there is no suggestion that all verbs or adjectives have this ambiguity, rather it occurs only in terms whose strict sense is some ‘acting or being acted on’ (*ἢ τῶ ποιεῖν ἢ τῶ πάσχειν*, B81; ‘motion’ in B80 is equivalent).⁸⁶ Now, however, the mature Aristotle argues that the ambiguity is found in all predicates *F*, not just predicates in the

⁸⁴ A line is *δυνάμει δίπους*, ‘two feet in square’, at *Statesman* 266 B 3; the good-itself exceeds *ousia* in *προσβεία καὶ δυνάμει*, ‘in rank and power’, at *Republic* 6, 509 B 8–10, but this doesn’t mean ‘potentially’.

⁸⁵ There is a very detailed study of the history of this phrase in the excellent book of D. Lefebvre, *Dynamis: Sens et genèse de la notion aristotélicienne de la puissance* (Paris, 2018), 37–180.

⁸⁶ See discussion in my ‘The Origins of Aristotle’s Concept of *energeia*: *energeia* and *dunamis*’, *Ancient Philosophy*, 14 (1994), 73–114.

categories of acting and being-acted-on (or in the single category of motion).⁸⁷ And if, as he has argued in *Δ. 7, 1017^a22–30* against Lycophron and the like, ‘is’ is said in as many ways as there are categories of predicates, ‘is’ too will have a *dunamis*-sense and an *energeia*-sense. And while this shows in the first instance that 2-*place* ‘is’ has these senses, Aristotle will argue that the same ambiguity occurs in locative or existential ‘is’.

Aristotle says:

ἔτι τὸ εἶναι σημαίνει καὶ τὸ ὄν τὸ μὲν δυνάμει [ρήτῶν], τὸ δ’ ἐντελεχεία τῶν εἰρημένων τούτων· ὄρων τε γὰρ εἶναι φαμεν καὶ τὸ δυνάμει [ρήτῶς] ὄρων καὶ τὸ ἐντελεχεία, καὶ [τῷ] ἐπίστασθαι ὡσαύτως καὶ τὸ δυνάμενον χρήσθαι τῇ ἐπιστήμῃ καὶ τὸ χρώμενον, καὶ ἡρεμοῦν καὶ ᾧ ἤδη ὑπάρχει ἡρεμία καὶ τὸ δυνάμενον ἡρεμεῖν. ὁμοίως δὲ καὶ ἐπὶ τῶν οὐσιῶν· καὶ γὰρ Ἑρμῆν ἐν τῷ λίθῳ φαμέν εἶναι, καὶ τὸ ἦμισυ τῆς γραμμῆς, καὶ σίτον τὸν μήπω ἀδρόν. πότε δὲ δυνατὸν καὶ πότε οὐπω, ἐν ἄλλοις διοριστέον. (*Δ. 7, 1017^a35–b9*)

Being also signifies what is, on the one hand potentially, on the other hand actually, [any] of these aforementioned [kinds of being]: for we say that both what sees potentially [i.e. what has the power of sight] and what sees actually *are* seeing, and likewise we say that both [what is] capable of exercising knowledge and [what is] exercising it *know*, and both that to which rest already belongs and [what is] capable of resting [are] resting. And likewise with substances: for we say that Hermes [or: a herm] *is* in the stone, and that the half of the line *is*, and that what is not yet ripe *is* grain; but when [something like this] *is dunaton*, and when it is not yet [so *dunaton*], we must determine elsewhere [= *Θ. 7*].

The burden here is to show that ‘is’, in various contexts, can have the potentiality-sense, since the actuality-sense is the default sense and does not need to be argued for. Aristotle starts from the familiar ambiguity in verbs of cognition, but he brings out that ‘is’ can be said in as many ways as these verbs can be said: if there is no difference between ‘the man cuts’ and ‘the man *is* cutting’ (1017^a27–30), then there is no difference between ‘*S is* seeing’ and ‘*S* sees’, and so in this case ‘is’ can signify either an actuality or a potentiality. Of

⁸⁷ See the same paper for motion as a category. Motion or *kinēsis* is listed among the categories at *Metaph. Z. 4, 1029^b22–5*, *Iota 2, 1054^a4–6*, and *Δ. 1, 1069^a19–22*. The category of *kinēsis* also appears at *EE 1. 8, 1217^b26–33*: but while *kinēsis* is mentioned singly at ^b33, *kineisthai* and *kinein* are a pair at ^b29. Aristotle needs to divide the category of *kinēsis* into acting and being-acted-on, or *kinein* and *kineisthai*, to make sense of the claim that not every agent or mover is *ipso facto* itself affected or moved.

course, here *einai* has a complement of a very special type, but Aristotle tries to extend the claim. In the *Protrepticus* he had described all cognitive activities as motions (B8o), and still in the *Metaphysics* (in Δ . 12 and in Θ) he says that *dunamis* primarily signifies the ability to move something, and secondarily the ability to be moved by something, but he tries to show that we can say ‘*S* is *F*’ in a *dunamis*-sense even when ‘*F*’ does not signify either moving or being moved. The first extension is, naturally enough, from moving to resting: ‘both that to which rest already belongs and what is capable of resting [are] resting’ (1017^b5–6); similarly Θ . 3 will speak of being capable of sitting or standing (1047^a22–9) alongside being capable of moving or walking. This has the effect of extending the *dunamis*-sense to verbs that do not signify acting or being acted on, or to ‘is’ when its complement is the participle of a verb signifying not in the categories of acting or being-acted-on (or the category of motion) but in the category of position. But, within the category of position, surely it is a mere grammatical accident that in ‘*S* is sitting’ the predicate is expressed by a participle while in ‘*S* is upright’ it is expressed by an adjective. If we can say ‘*S* is sitting’ in the *dunamis*-sense, we should also be able to say ‘*S* is upright’ in the *dunamis*-sense; and, if so, we should also be able to say ‘*S* is white’ or ‘*S* is *F*’ in general in the *dunamis*-sense, where *F* is in the category of quality, or indeed in any other category of accidents. But Δ . 7 skips these intermediate stages, saying immediately ‘and likewise with substances’ (1017^b6), because, for the larger purposes of the *Metaphysics*, substances rather than qualities or quantities are the most important extended cases of being in the *dunamis*-sense. (So likewise in Θ . 6, where Aristotle is describing an analogical extension of the terms *energeia* and *dunamis* from the linguistically primary senses in which *energeia* signifies a motion and *dunamis* signifies a power to move or be moved, he says of the various analogous pairs of terms ‘some are said as motion to *dunamis*, others as substance to some matter’ (τὰ μὲν γὰρ ὡς κίνησις πρὸς δύναμιν, τὰ δ’ ὡς οὐσία πρὸς τινα ὕλην, 1048^b8–9), ignoring cases where the *energeia*-term might be a quality or quantity. Here too Aristotle is describing an analogical extension across the categories, and ‘motion’ should be taken as the name of a category.)⁸⁸

⁸⁸ See again the same paper.

Aristotle gives three examples for being *dunamei* in the category of substance, the statue of Hermes, the half-line, and the grain (these are all assumed for the sake of the argument to be substances, whether they really are or not). The example of the grain is grammatically analogous to the non-substance cases, ‘*S is F*’ where in this case *F* is a predicate in the category of substance (and this is a case where we would indeed plausibly say, pointing to it, that it is grain, rather than olives or figs), whereas the example of the half-line is existential, and the example of the statue is locative, or perhaps locative-existential ‘there is in the stone a herm’. Aristotle seems not to feel that the shift from a *dunamis*-sense of predicative ‘is’ to a *dunamis*-sense of existential or locative ‘is’ is a major transition (if he did, he would surely have listed the predicative example of the grain first, where it would be continuous with seeing and knowing and resting, and only then made the transition to the existential and locative examples). Rather, the transitions where the reader might need some persuasion are from the category of motion (or acting and being-acted-on) to other accidental categories and then to substance; once the point has been made that ‘is’ can have the *dunamis*-sense even in the category of substance, Aristotle seems unworried about passing back and forth between sentences of different grammatical forms. The example of the half-line could easily have been locative (‘the half is present in the line’), and the example of the statue could have been purely existential (‘the statue is said to exist, because it is potentially present in the stone’). The grain example too could have been locative-existential or locative (‘on the stalk there is grain’, ‘grain is on the stalk’) or even purely existential (‘there is grain’, with an implied locative restriction ‘in these fields’). Indeed, the non-substance examples too could have been put in existential or locative forms (‘there is knowledge in this soul’ etc.). In all of these cases the implicit inference is between ‘*S is F*’ (or paronymously ‘*S is F**’) and ‘*F* exists’ or ‘*F* is in *S*’ (or ‘*F* belongs to *S*’ etc.)—never between ‘*S is F*’ and ‘*S* exists’. We have seen this equivalence already in discussing the senses of being corresponding to the categories, but it has a particular implication for being *dunamei*. Bucephalus *is* moving, in the *dunamis*-sense, because he has a power to move; we could also say that Bucephalus’ motion exists (or that motion *is* in Bucephalus), in the power-sense, again because Bucephalus has a power to move—not because Bucephalus’ motion possesses some power, but

because *he* does. Likewise, we can say that the line *is* bisected, in the *dunamis*-sense, because the line has a passive power to be so divided, or that what is not yet ripe *is* grain, in the *dunamis*-sense, because it has a nature whose natural motion will be to ripen into grain, and so we can also say that the half-line and the grain exist (or are present in the line or on the stalk) in the *dunamis*-sense, not because they themselves possess some power but because the line or the plant does. If something does not yet actually exist, then it does not possess any power, whether a power for existing or for anything else; rather, on Aristotle's analysis, if *F* does not yet actually exist, then it 'exists', in the weak sense in which it does exist, only because something has a passive power to become *F* (or to become the paronymous *F**, e.g. to become white, not to become whiteness) and because something has the active power to produce *F* or make something *F* (or make something *F**, e.g. make something white).⁸⁹ (Presumably the not-yet-actually-existing *F* also has being-as-truth, but this is much less interesting for the causal investigation.) To put it another way, if *F* is not-yet-actually-existing, statements apparently about *F*, including '*F* can exist', need to be reanalysed so that *F* is no longer in subject position ('*S* can become *F*, *T* can produce *F*'); which is what Aristotle does in *Physics* 1. 7–8,

⁸⁹ Thomas is thus un-Aristotelian when he says that the essence of *F* is related to the existence of *F* as potency to act. Later scholastics correctly restate the Aristotelian position against Thomas, in scholastic terminology, by saying that a non-existing *F* has not a *subjective* potency but an *objective* potency to exist: where a subjective potency of *F* is a power (either active or passive) that *F* has for something, and an objective potency is a power that something else has to produce or become *F*, such a potency denominating *F* extrinsically (i.e. the verb *potest* holds of *F* because of a *potentia* inhering in something else, as 'healthy' holds of a diet because of a health inhering in something else, the animal for which the diet is healthy). This difference between Thomas and Aristotle is connected with a difference about the causality of the first principle (call it God): Aristotle and Thomas agree that God is pure *ἐνέργεια/actus*, and is the cause to many or all other things of their (1-place) being-as-*ἐνέργεια/actus*. But for Aristotle God causes *F* to exist by actualizing the potentiality which the matter of *F* has to become *F*, while for Thomas God actualizes the potentiality which the essence of *F* has to exist. Thomas finds the authentic Aristotelian position unacceptable because it cannot explain how God would cause the existence of the subordinate heavenly movers, of the heavenly spheres themselves, or of the prime matter of sublunar things, none of which have a further matter prior to them; and indeed Aristotle seems not to believe that God does cause the existence of these things. Note also that for Aristotle God causes the existence of sublunar things only indirectly, by causing the motions of the heavenly bodies which in turn cause regular sublunar changes and the perpetuation of sublunar species, while Thomas thinks that God must be an *immediate* cause of the existence of each thing other than himself.

where '*F* comes-to-be' is rewritten as '*S* comes-to-be *F*' in order to answer Eleatic *aporiai* and to analyse the preconditions of coming-to-be (and so to discover the principles of natural things). In reanalysing statements about a not-yet-actually-existing *F* so that *F* is no longer in subject position, Aristotle contrasts most clearly with the Fifth Hypothesis of the *Parmenides*, where a one which is not can be the subject of a whole series of predicates, sufficient to distinguish it from other non-existent things, and can even be the subject of one kind of motion, namely coming-to-be; a view which Aristotle attacks as a mistaken 'giving in' to Parmenides' argument that if anything comes-to-be, it comes-to-be from not-being.⁹⁰

So we can say that for Aristotle, by contrast with Plato in the Fifth Hypothesis of the *Parmenides*, the 'existence' of not-yet-actually-existing things is parasitic on the existence of actual things, namely actually existing passive and active powers and the actually existing substances which are their bearers. But it may be more illuminating, and more Aristotelian, to put the point in terms of causality. If something *is* in the *dunamis*-sense, then what causes it to *be* in this sense is a power or the bearer of a power—and equally so whether the effect is 2-place being (*S is F*, in the *dunamis*-sense) or 1-place being (*F is*, in the *dunamis*-sense). Thus *Physics* 2. 3, which as we have seen distinguishes powers and their bearers (δυνάμεινα causes, 195^b4–5) from acting (ἐνεργούοντα) causes, says that for each effect we must assign a cause of the appropriate kind, 'powers for possible things, and acting [causes] for things-being-actually-produced things' (τὰς μὲν δυνάμεις τῶν δυνατῶν, τὰ δ' ἐνεργούοντα πρὸς τὰ ἐνεργούμενα, 195^b27–8): the causes of a possible house are an active power for producing a house, i.e. the art of housebuilding, present in some housebuilder, and a passive power for becoming a house, present in some materials on which the art of housebuilding can act. And this helps to solve a puzzle that we had raised before about *Metaphysics* Θ: given that Θ starts by announcing a study of being in the actuality and potentiality senses, why does it then immediately switch to an extended discussion of powers as (in a broad sense) principles, taking up the latter

⁹⁰ On giving in to Parmenides, see *Phys.* 1. 9, 191^b36–^a2; Aristotle apparently refers to the Fifth Hypothesis on what can and cannot be attributed to not-beings at *Metaph.* Θ. 3, 1047^a32–^b1.

part of Θ . 1, and all of Θ . 2 and Θ . 5, and how is this discussion related to what he does eventually say about being as potentiality and as actuality? The connection is that the causes of being-*dunamei* are *dunameis*. And, conversely, Aristotle maintains that powers are sufficient to explain only why something is possible: to explain why *F* actually exists (why some matter has the form of *F*, why some body has the motion *F*, etc.) we need to cite an activity or its bearer, an acting cause.

This connection between *dunameis* and being *dunamei* has important implications, worked out in Θ . 8 and then *A*. 6, for the investigation of the first principle. If we conclude, say, with Anaxagoras, that the first causes of all things, existing prior to the cosmos, are a *Nous* which potentially produces circular motion and thus cosmic order but is actually doing nothing, and a collection of material principles which potentially function as parts of animals and the like but are actually doing nothing, then there will be no sufficient reason for there to be an actual circular motion, actual cosmic order, actual animals and so on. If there is to be a sufficient reason for these things' actually existing, there must be an *acting* cause prior to the potential causes, in order to make them actual causes, and so the potential causes will not really be the first causes. As *A*. 6 says, if *dunamis* is prior to *energeia*, i.e. if the first principles are powers or the power-bearers which are potential causes (see 1071^b22–4), 'then none of the things-that-are will be: for it is possible [for something] to be able to be but not yet to be' (*οὐθὲν ἔσται τῶν ὄντων ἐνδέχεται γὰρ δύνασθαι μὲν εἶναι μήπω δ' εἶναι*, 1071^b25–6). This passage makes it clear that powers or potential causes explain why things are *possible*, why they are 'able to be' (*δύνασθαι εἶναι*), but are not sufficient to explain why they are actually existent rather than not-yet-existent or never-to-be-existent; and it also makes clear that a thing 'is able to be', not on account of any power that *it* has, but on account of the powers that its causes have.⁹¹ Aristotle does not really mean that if the principles were powers or power-bearers, 'none of the things-that-are will be', since the principles themselves will exist (he is not refuting the view that the principles are merely potentially *existing*, a view no

⁹¹ Similarly a few lines above, 1071^b17–19: 'nor [will it be sufficient] even if [the *archē*] acts, but its *ousia* is *dunamis*, for motion will not be eternal: for it is possible for what is in potentiality not to be' (*ἔτι οὐδ' εἰ ἐνεργήσῃ, ἢ δ' οὐσία αὐτῆς δύναμις· οὐ γὰρ ἔσται κίνησις αἰδίου· ἐνδέχεται γὰρ τὸ δυνάμει ὄν μὴ εἶναι*).

one had held, but rather the view that they are merely potentially *acting* and so merely potential *causes*): but the claim is that such principles would contain no sufficient reason for anything beyond the principles themselves to exist, and therefore that nothing beyond the principles themselves will in fact exist. If Anaxagoras or other pre-Socratics (or the Plato of the *Timaeus*) argue that the principles, as whatever existed before the ordered world came to be, cannot already have been actual causes, since if they were they would already have produced a world, Aristotle will simply accept the conclusion that the principles have always been acting in such a way as to produce a world, and therefore that the world has existed from eternity, and that the principles are not *temporally* prior to the world, but prior only in some more abstract causal sense.

This strategy of argument (which I am presenting in the most barebones form, disregarding the objections and distinctions and supporting arguments developed especially in *Θ*. 8)⁹² is by now all too familiar. My main point, however, is that no one before Aristotle had drawn a connection between *dunamis* and being *dunamēi*, or said that powers and their bearers are insufficient to explain the actual existence of their effects. The only extended discussion of the status of not-yet-existent objects that we know of before Aristotle, the Fifth Hypothesis of the *Parmenides*, does not use the concept of *dunamis*, and does not analyse the causes of the quasi-existence of such objects, or how they differ from the causes which are sufficient for actual existence. Certainly Parmenides supported his claim that what is cannot have come-to-be from what is not by arguing that there would not be a sufficient cause ('what need would stir it up to arise later or sooner, if it started from nothing?' (τί δ' ἄν μιν καὶ χρέος ᾤρσεν ὑστερον ἢ πρόσθεν, τοῦ μηδενὸς ἀρξάμενον, φῶν; B 8. 9–10 DK), and it is likely that Leucippus and Democritus had extended this strategy to refute Anaxagoras by arguing that there would be no sufficient reason for *Nous* to begin the vortical motion at one time rather than another. But it is a long way from this sort of starting-point to the general concepts of potential and actual causes and the senses of being that they explain, and thus to Aristotle's conclusions about the priority

⁹² On which see my 'Aporiai 13–14', in M. Crubellier and A. Laks (eds.), *Aristotle's Metaphysics Beta* (Oxford, 2009), 211–65, and at much greater length Part III of *The Aim and the Argument*.

of *energeia*. What Aristotle does here is an illustration of a basic claim that he is making in the *Metaphysics*, namely that reflection on different senses of being will help us in resolving disputes about the principles—not because we are looking for what *is* in the most paradigmatic sense, but because we are looking for the principles as causes of being. Different senses of being will lead us in different directions to discover their appropriate causes: being *per accidens* and being as truth lead nowhere; being as *ousia* leads to the ‘cause of being’ to *F* (ἀττιον τοῦ εἶναι, Δ. 8, 1017^b15, discussed above) or ‘cause of *ousia*’ to *F* (τῆς οὐσίας ἀττιον, A. 6, 987^b24–5, A. 7, 988^b12–13) which is the *ousia* of *F*, the answer to ‘what is *F*?’; being as potentiality and actuality leads to potential or actual material and efficient causes, active and passive powers and their bearers and their exercises.

This, it seems to me, is the sense in which Δ. 7 is distinguishing four main senses of being, rather than, say, a matrix of 10×2 senses of being, or the absurd $10 \times 2 \times 1$ to include being as truth. Δ. 7’s four main senses of being are distinct because they lead to different causal investigations, and it is only in that perspective that the division makes sense. By contrast, 1-place and 2-place being do *not* lead to different causal investigations, since we can investigate the cause of 1-place being only by reformulating it as 2-place being, and so each statement of 1-place being, if it can be causally investigated at all, will fall under the same sense of being as the equivalent statement of 2-place being. Δ. 7 does not thematize the equivalence of 1-place and 2-place being: it takes it for granted, mainly giving 2-place examples but moving unproblematically to 1-place formulations (the not-white, or the white, at 1017^a18–19 and the half-line at 1017^b7–8) and also a locative formulation (the herm in the stone at 1017^b7). From *I*. 2 we might have thought that the main distinction in the senses of being that would raise an issue for the science of being *qua* being would be a distinction among 1-place senses of being, and also that it would be mainly the distinction among different senses corresponding to the different categories, and also that it would not cause much trouble, since the causes of being as substance will be automatically causes of all beings. But on examination there turn out to be different effects, all ‘being’ in some sense, whose causes we could investigate. Admittedly, some of those investigations lead nowhere. Both being *per accidens* and being as truth are distinguished from being *per se*

in *Δ. 7*, precisely because there is no science of their causes: separating them out helps show more clearly what we need to investigate in investigating the causes of being *per se*. If we followed the simple *Γ. 2* view that non-substantial being is derivative from substantial being, because if *F* is a non-substance then *F* exists only because it is predicated of (or is *in*) some substance *S*, so that it would be enough to look for the cause of *S*'s existing, then this would apply equally if *F* is a being *per accidens*. *Δ. 7* explains that (even setting aside 'the white is musical' or 'the musical is a man', where the grammatical subject is not the subject *in re* of the predicate) a sentence of the form '*S* is *F*' or '*F* exists' expresses being *per accidens* when it expresses that 'it [accidentally] belongs to what *is*' (ὄτι τῷ ὄντι συμβέβηκε, 1017^a16) or 'what it [accidentally] belongs to *is*' (ὄτι ᾧ συμβέβηκεν, ἐκείνο ἔστιν, 1017^a18–19): assuming that the standard reading is right at 1017^a18,⁹³ Aristotle makes the point there that this would hold even if *F* is a negation. Being as truth is also expressed equally by affirmative and negative sentences. By contrast, '*S* is *F*' or '*F* exists' can only express being *per se* if *F* falls under one of the figures of predication, which negations and beings *per accidens* do not: and to look for the cause of being in this sense is to investigate what it is for *S* to be *F*, where there is no what-it-is-to-be-*F* if *F* is a negation or a being *per accidens*, and there is no what-it-is-for-*S*-to-be-*F* unless *S* is the *per se* subject of *F*.

These are, of course, the kinds of causes of being that *Metaphysics Z* will focus on. After *Metaphysics E* concludes that being *per accidens* and being as truth do not lead to causes which are the objects of any science, *Z* investigates causes of being in the categorial senses, and above all of being as *ousia*, and concludes that while this investigation leads to real causes which are the objects of real sciences, real essences expressed by scientific definitions, these causes are not the eternal principles which are objects of wisdom. Fortunately, *Δ. 7* also gives us being in potentiality and in actuality, and these lead to the investigations of their causes, *dunamis* and *energeiai*. *Θ* concludes, negatively, that the causes of being as potentiality are not the first principles, but also, positively, that *energeia* is prior to *dunamis*, so that the principles are *energeia* and might be found as causes of being in actuality, and *Λ. 6–10* elaborates how

⁹³ For the issue between τὸ μὴ λευκόν and τὸ λευκόν at 1017^a18, see n. 13 above.

this is supposed to work. The result is supposed to be that the path to something like Platonic Forms, as formal causes of being-as-*ousia*, does not lead to the desired principles, but that the path to something like the *Nous* of Anaxagoras, the Love and Strife of Empedocles, or the demiurge of the *Timaeus*, does succeed if refined and reanalysed as a path to efficient causes of being-as-actuality. But this refinement has important revisionist consequences not just for the nature of the principle itself as pure *energeia*, but for its mode of acting on the world: there can be only one of it and not a pair of contraries, and it must be acting always and in the same way for all eternity, so that the ordered cosmos must also be eternal; and because it has no *dunamis* and so cannot be moved, it can act to produce the motion of the heavens and so cosmic order only in the very peculiar way analysed in *A.* 6–10.⁹⁴

Appendix: Arguments that Aristotle did not intend
 Δ as part of the *Metaphysics*

Most people who write about the *Metaphysics* seem to think it has been established (by someone else) that Δ was not originally part of the *Metaphysics*. If you ask them who established this and where, you might get sent to Ross or Jaeger, but these authors will mostly send you back to Bonitz, who does not say that much either. The only attempts at systematic argument I have found are Bonitz *Metaphysica*, ii. 18–20, and Jaeger *Entstehungsgeschichte*, 118–21; Ross has some very quick remarks at i. xxv. In *The Aim and the Argument* Iγ1b I collect these arguments and reply to each of them. Here is a checklist, in case anyone wants either to pursue one of these arguments or to add a new one.

From Bonitz:

- (i) Against Alexander, *T.* 2, 1004^a28–31 isn't promising Δ , which merely distinguishes uses of terms and does not talk about the concepts themselves or bring out 'what is the

⁹⁴ I would like to thank Jan Szaif for his comments at the Princeton Classical Philosophy Conference in December 2008, Victor Caston both for his comments on a draft before that conference and for his comments and assistance twelve years later at *Oxford Studies in Ancient Philosophy*, an anonymous referee, and audiences at Princeton in 2008 and Oxford in 2015.

- proper and primary concept of each of the terms'. Answer: as I have argued above, Alexander is right about *Γ*. 2, 1004^a28–31, and Bonitz is wrong about what Δ does not do.
- (ii) This sort of preliminary discussion of the uses of terms should have been prefixed to the whole *Metaphysics*, rather than interrupting the argument in the middle. Answer: Δ does not interrupt the argument of the *Metaphysics*. *ABΓ* are preliminaries; *Γ* says that we need to investigate the causes, principles, and elements of being and of its *per se* attributes, and that to do this we must distinguish the many senses of each of these terms. Δ does so, and then Aristotle investigates the causes of being (*EZHΘ*) and of its *per se* attributes (*Iota*), using the distinctions drawn in Δ .
- (iii) There is no parallel to Δ in *K*, which contains parallels to *BΓE* in sequence. Answer: true but unsurprising. Δ has a different status from the other books of the *Metaphysics*, in that it was always a written reference-text like the *Selection of Contraries* or the *Historia Animalium*, whereas the other books, like most of Aristotle's preserved work, began as lectures or as texts for lecture-presentation. The status of *K* is at least as controversial as the status of Δ , but in my view *K*. 1–*K*. 8, 1065^a26 are a student's reworking (for his own lectures) of his notes from lectures Aristotle gave corresponding to *BΓE*; there is no section corresponding to Δ because there were no lectures corresponding to Δ . None of this implies that Aristotle did not intend Δ as part of the *Metaphysics*: the *Metaphysics*, like other Aristotelian treatises, was always intended to be a written text as well as a lecture-course, and Δ was intended to be part of that written text.
- (iv) Δ leaves out some important metaphysical terms (Bonitz mentions *εἶδος*, *ὑλη*, *ὄρος*, *τί ἐστι*, *ἐνέργεια*) and includes other terms of no great metaphysical interest (he mentions *κολοβός*, *διάθεσις*, *ἔχειν*). Answer: certainly not all chapters of Δ are necessary, and some additional chapters would have been welcome. But while the terms on Bonitz' first list are all conceptually important, and in some cases have important ambiguities (most obviously it would have been nice if Aristotle had explained how *εἶδος* as form and *εἶδος* as species are related), these are not distinctions that he will

explicitly draw later in the *Metaphysics*, e.g. in resolving some difficulty which arises from not distinguishing them, and which he would want to have prepared in Δ . (An exception is the distinction between sensible and intelligible matter, which he does in fact draw under Δ . 24, $\xi\kappa$ *τινος*.) Some terms seem to have been included because they are closely connected with some other term of greater interest, or are parts of series of terms that Aristotle wants to treat together. It is obvious from reading Δ . 19–20 together that *διάθεσις* is there as part of a package with $\xi\xi\iota\varsigma$ (the chapter division here is misleading); if we read these chapters with Δ . 21 too it seems that Aristotle wants to go through all the main species of quality, as in the *Categories* (he seems also to be interested in the relation between dispositional qualities and their *ἐνέργειαι*). Δ . 27 on *κολοβόν* is an overgrown appendix to Δ . 26 on *ὄλον* (note the $\delta\acute{\epsilon}$ -connection at 1024^a11). Δ . 23 on $\xi\chi\epsilon\iota\omega$ and the correlative concept of $\xi\nu$ *τινι* may have been included because Aristotle wants to distinguish the ways in which the bronze *has* the form of the statue (1023^a12–13), the whole *has* the parts (^a16–17), and the *συνέχον* *has* the things it *συνέχει* (^a22); this connects with Δ . 24, where the statue is $\xi\kappa$ the bronze and the parts are $\xi\kappa$ the whole. For those who like such things, note Aristotle *Symposium* Fr. 2 Ross, ‘we do not offer anything *κολοβόν* to the gods, but rather things that are complete and whole (*οὐδὲν κολοβόν προσφέρομεν πρὸς τοὺς θεοὺς ἀλλὰ τέλεια καὶ ὅλα*)’.

- (v) There is no ‘determinate law’ (*certa lex*) either of the selection or of the ordering of terms in Δ , and Aristotle has more subtle accounts of particular terms in the *Metaphysics* and *Physics*. Answer: true. At least through Δ . 12 there are very good reasons for Aristotle to discuss all of these terms, and tolerable reasons for the order; it becomes less clear after that, and there is certainly no overall scheme that generates the whole list, although several of the terms Aristotle discusses in these later chapters will be very important for the later argument of the *Metaphysics*, and there are clearly some clusters of terms that go together, sometimes in a determinate logical order (thus Δ . 27 presupposes Δ . 26 which presupposes Δ . 25). If you are looking for Hegel’s *Logic*, you will be disappointed. Of course what Aristotle

says about *ousia* in *Z* is more subtle than what he says in *Δ*. 8, but that is a much longer discussion, and it builds on *Δ*. 8.

Jaeger adds:

- (vi) *Δ* interrupts what would otherwise be the connected resolution of the first four *aporiai* of *B* in *ΓΕ*. Looking back to *Entstehungsgeschichte*, 91–2 shows that what Jaeger means is that the third *aporia* of *B* (is there a single science of all substances?) is resolved in *E*. 1, which says that physics treats changeable substances, first philosophy unchangeable substances. Answer: there is no such continuity between *Γ* and *E*. The distinction between the different domains of substance treated by different philosophical sciences was drawn already at *Γ*. 2, 1004^a2–9 (and see also *Γ*. 3, 1005^a33–b₂). If *E*. 1 addresses any *aporia* from *B*, it is the fifth, whether there are substances beyond the sensibles, such as Forms or mathematical. But *E* is not by itself sufficient to answer the *aporia*: to find the answer, we must start with sensible substances and investigate their different causes, to see if some causal chain leads up to separately existing unchanging things. (We may also have to investigate e.g. whether the truth of mathematical theorems requires the separate existence of their objects.) To give a full, well-grounded answer will take the rest of the *Metaphysics* (and the other *aporiai* from *B* beyond the first four—in my view also the first—will be answered en route), and it requires that we first distinguish the different senses of cause, being, unity and so on. That is why *Δ* is there before *E*. Jaeger expects Aristotle to give answers without doing the hard work needed to justify them.
- (vii) The ancient catalogues of Aristotle's works report an *On Things Said in How Many Ways or By Addition, one book* (*Περὶ τῶν ποσαχῶς λεγομένων ἢ κατὰ πρόσθεσιν Α*) which is presumably *Metaphysics Δ* (with *On Things Said in How Many Ways, Περὶ τῶν ποσαχῶς λεγομένων*, arising from a jumbling of *On Things Said in Many Ways, Περὶ τῶν πολλαχῶς λεγομένων* with *On How Many Ways [something is said], Περὶ τοῦ ποσαχῶς*). So *Δ* was an independent work. Answer: the catalogues also give us e.g. an *On the Choice-*

worthy and *On Accident*, one book (Περὶ αἰρετοῦ καὶ συμβαίνοντος *A*) which is presumably *Topics* 2–3 or just 3, and an *On Not Generating*, one book (Περὶ τοῦ μὴ γεννᾶν *A*) which is presumably *Historia Animalium* 10. Nobody is going to conclude that these were not intended as part of the larger collections. Some Peripatetics chopped the Aristotelian corpus into larger and others into smaller units (and Aristotle himself, in his references to his own work, cheerfully does both), without affecting the logical sequence of the texts. (E.g. is it an 8-book *Physics* followed by a 4-book *De Caelo*, a 2-book *Generation and Corruption* etc., or a 4-book *Physics*, a 3-book *On Motion* [with *Physics* 7 as a related 1-book *On Motion*], a 4-book *De Caelo* etc.; or a single gigantic *Physics* going up through the *Meteorology* or even through the zoological works?) The most we can infer from the catalogues is that people sometimes copied Δ separately, and it is hardly surprising that someone would do so.

- (viii) Aristotle in later books of the *Metaphysics* refers to Δ with phrases like εἴρηται ἐν ἄλλοις, although also with εἴρηται πρότερον. This suggests a tension about whether Δ is part of the same treatise as these later books or not, but Jaeger argues that ἐν ἄλλοις trumps πρότερον, that πρότερον does not imply earlier in the *same* treatise: he assembles a number of places where one physical treatise refers back to a physical treatise earlier in the series by the phrase εἴρηται ἐν ἑτέροις πρότερον. Answer: again, Aristotle in his self-references can chop up his own work as finely or crudely as is convenient on any given occasion; ἐν ἄλλοις or ἐν τοῖς περὶ *X* is a reference to a unit of text contrasting with the present unit, but the units can be of any scale. *Metaphysics* Θ refers back to *Z* as ἐν τοῖς περὶ τῆς οὐσίας λόγους (1049^b27–8); *H*, being itself part of the discussion of *ousia*, cannot refer back to *Z* by this formula and so says simply ἐν ἄλλοις (1043^b16), but all of these texts could be referred to from outside as parts of a larger unit, e.g. ‘On Being’ or ‘On First Philosophy’ (Iota cites something from *Z* as ἐν τοῖς περὶ οὐσίας καὶ περὶ τοῦ ὄντος εἴρηται λόγους, 1053^b17–18, a form of reference which would have been impossible in Θ). *Sophistical Refutations* 2 refers to things in the *Topics* as ἐν ἑτέροις or ἐν ἄλλοις, although the

Sophistical Refutations begins with a δέ connecting back to the *Topics*, and although the last chapter of the *Sophistical Refutations* summarizes Aristotle's achievement in discovering a method for drawing inferences about any given subject from plausible premisses (183^a37–^b2), i.e. in the project of the *Topics* as a whole, with a very close echo of the first sentence of the *Topics*. *De Anima* 3. 3, 427^a22–5 says 'Empedocles says [B106 DK] and ἐν ἄλλοις [B108 DK]', and this is not evidence that B106 and B108 come from different poems; likewise when *Politics* 8. 3, 1338^a25–30 cites a version of *Odyssey* 17. 382–5 and then says that Odysseus ἐν ἄλλοις says what he says at *Odyssey* 9. 7–8. All of Jaeger's examples of εἴρηται ἐν ἑτέροις πρότερον are cross-references between different parts of Aristotle's *Περὶ φύσεως*, whether we think of this as a single treatise or as an ordered series of treatises.

Added by Ross:

- (ix) While Δ is 'a useful preliminary to the *Metaphysics*... it is not preliminary to it in particular' (*Metaphysics*, i. xxv). Δ is cited not only in later books of the *Metaphysics* but also at *Physics* 191^b29 and *Generation and Corruption* 336^b29 (i. xiv). 'Some of the notions discussed in it (κολοβόν, ψεῦδος) are not appropriate to the *Metaphysics*, and it is apparently earlier than the physical works while the rest of the *Metaphysics*, in its present form, is later' (i. xxv). Answer: Δ contains no ethical and almost no physical terms, its account of the senses of being structures the argument of *EZHΘ*, it is very closely connected with *Iota*, and it contains a series of distinctions which will be drawn on at crucial junctures in the later argument of the *Metaphysics*. The *Generation and Corruption* reference says 'being is better than not-being (it has been said elsewhere in how many ways we speak of being)' (βέλτιον δὲ τὸ εἶναι ἢ τὸ μὴ εἶναι (τὸ δ' εἶναι ποσαχῶς λέγομεν, ἐν ἄλλοις εἴρηται), 2. 10, 336^b28–9), which could be referring to anything; the *Physics* reference says 'this is one way [of solving Parmenides' *aporia* about coming-to-be out of being or out of not-being], and another is that the same things can be said in the sense of potentiality

and in the sense of actuality; this has been determined with more precision elsewhere' (1. 8, 191^b27–9),⁹⁵ which cannot be referring to Δ . 12 and could only with great difficulty be referring to Δ . 7, 1017^a35–^b9, which are too short to determine anything with much precision and say nothing about Parmenides' *aporia*; Θ or Λ are more likely. Even if Aristotle is referring to Δ , why shouldn't he refer to a part of the *Metaphysics* to clarify a metaphysical concept? Ross' chronology is merely an inference from the fact that the *Physics* and *Generation and Corruption* passages refer to Δ (if it is Δ) in the perfect tense (see i. xiv). On *κολοβόν* see (iv) above; on *ψεῦδος* see *Metaphysics E.* 4 and Θ . 10. While Ross does not mention this here, of course *Physics* 2. 3 on the kinds of cause is very close, often verbatim identical, to Δ . 2. But it seems to me that the natural home for this text is in the *Physics*, in asking which causes the *physicist* should refer all natural changes to (so *Phys.* 2. 3, 194^b20–3); *Metaphysics A.* 3 refers back to the *Physics* for the study of the different kinds of cause (983^a33–^b1), and *A.* 7 says that no one has proposed any kind of principle and cause other than those we distinguished in the *Physics* (988^a21–2). *Metaphysics* Δ . 23 and *Physics* 4. 3, 210^a14–24 on the senses of 'in' don't seem to stand in any particularly close relationship; certainly the *Physics* text is not drawing on the *Metaphysics* text. (Oddly, the *Metaphysics* treatment is more 'physical', the *Physics* treatment more general and abstract.)

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⁹⁵ εἰς μὲν δὴ τρόποσ οὗτος, ἄλλος δ' ὅτι ἐνδέχεται ταῦτά λέγειν κατὰ τὴν δύναμιν καὶ τὴν ἐνέργειαν· τοῦτο δ' ἐν ἄλλοις διόρισται δι' ἀκριβείας μᾶλλον.

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