Iγ1: the senses of being and the causes of being

Iγ1a The aims of ΔE and the argument of E1
Iγ1b The aims of Metaphysics Δ
Iγ1c Δ7 and the many senses of being

   Iγ1a: The aims of ΔE and the argument of E1

   To summarize the state of the argument after Metaphysics ABΓ. In pursuing wisdom, we are looking for the ἀρχαί, the first of all things. We know that these must be eternal, and also that they must exist separately, in the sense described in Iβ4 above. Since such ἀρχαί are not manifest to us, we must reason to them as causes of some more manifest effect; and only this kind of reasoning will allow us to resolve the disputes among the physicists, mathematicians and dialecticians about what things are ἀρχαί. Not every causal chain leads up to separately existing eternal causes, and it was not immediately obvious what effect we should start from in order to discover such causes. But Metaphysics Γ, taking up B#2-4, argues that we should look for the ἀρχαί as causes of being quâ being and of the per se attributes of being--that is, as causes, to the things that are, of the facts that they are, that each of them is one and the same, that they are many and different and sometimes contrary to each other, and so on. (Γ also argues that the causes of substance will be causes of all beings, and that the science of being quâ being will also give knowledge of the principles of demonstration.) But much work remains to be done before we can reach the desired science. It is still not really clear how to begin: we should look for causes of being and unity (and so on), but "cause" and "being" and "one" (and so on) are each said in many ways, and we do not know which kinds of cause, of which kinds of being and unity, will lead to the desired ἀρχαί. Certainly the very first task is to distinguish the different ways in which these things are said, since if we simply start by looking for causes-without-distinction of being-without-distinction, we can only end in confusion. Once we have drawn the distinctions, there will be many paths of inquiry we might pursue, and the correct method is to pursue all of them, one at a time without confusion, testing each of them to see whether it leads to the desired ἀρχαί or not.
   Much of the Metaphysics after Γ clearly follows this plan. We are looking for the ἀρχαί, causes and στοιχεῖα of beings, quâ being and quâ one and so on, and Metaphysics Δ gives us a discussion of the different senses of ἀρχή (Δ1), cause (Δ2), στοιχεῖον (Δ3), of one (Δ6), of being (Δ7), of same and other and different (Δ9), and of many other things that will be needed for the investigation of the causes of beings. (This is not to say that absolutely every term discussed in Δ is needed for the subsequent argument of the Metaphysics, or that no other terms could usefully have been added.) In particular, Δ7 distinguishes four senses of being--not, as we might have expected, corresponding to different categories, but rather (i) being per accidens, (ii) being as said of the different categories, (iii) being as truth, and (iv) being as actuality and potentiality, of which at least (ii) and (iv) must have sub-senses. This list of senses of being generates the overall structure of the next several books. Thus E2, with a clear reference back to Δ7, takes up this list of four senses of being (1026a33-b2), in the slightly different order (i)-(iii)-(ii)-(iv), and the remainder of EZHΘ follows through this list in this same order. The remainder of E2 (with its appendix E3) discusses being per accidens, arguing that there is no science of being in this sense (and, therefore, that wisdom is not a science of being in this sense). The brief E4 likewise discusses being as truth, and concludes by dismissing both of these senses of being together: "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 ἀρχαί of being itself quâ being" (1027b33-1028a4).[1] And ZHΘ continue the program of examining (the

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[1]I have translated οὐκ ἔξω δηλοῦσιν οὖσάν τινα φύσιν τοῦ ὄντος as "do not indicate that there is any further nature of being," i.e. just drawing out the negative implication of "both of them concern the remaining kind of being"

causes of) being in these senses. The end of E4 and beginning of Z1,[2] with an even clearer reference back to Δ7 ("καθάπερ διειλόμεθα πρότερον ἐν τοῖς περὶ τοῦ ποσαχῶς", Z1 1028a10-11), pick up the sense of being as divided into different sub-senses according to the categories: Z1 argues that we need only study being-as-οὐσία, and this is what the rest of ZH are about (H1 says we are investigating the "causes and ἀρχαί and στοιχεῖα of οὐσία", 1042a4-6). Θ1 then says that having spoken about being as divided into the categories (and especially about οὐσία), we must now speak about being as potentiality and actuality (1045b27-35), and this is what Θ1-9 proceed to do; finally, the opening of Θ10 (1051a34-b2) lists all three non-accidental senses of being from Δ7, and proceeds to address being as truth, and in particular the question of how truth can be said of non-composites, a question specifically deferred for later treatment in E4 (1027b25-9). Thus Δ7, by distinguishing the senses of being, demarcates the different paths that we must pursue in examining the causes of being in EZHΘ. Similarly, Iota examines per se attributes of being such as unity, plurality, sameness, otherness, difference and contrariety (all mentioned in Γ and discussed in Δ), with a view to deciding whether these lead to such ἀρχαί as a one-itself or a pure otherness or a first contrariety, as proposed in various Academic accounts of the ἀρχαί; Δ's distinctions make it possible to critically evaluate these Academic paths to the ἀρχαί, and Iota relies on Δ throughout.[3]

    In the present section Iγ1 I will discuss Metaphysics ΔE to the extent that these books help to set up the argument of the subsequent books of the Metaphysics, and especially of ZHΘ, to be discussed in Parts II and III. But before turning to ZHΘ, in section Iγ2 I will examine Metaphysics Iota on unity and its opposites, a separate branch of the argument coming out of Metaphysics ΓΔ, independent of the investigation of the causes of being in EZHΘ. In a long appendix I will also examine Metaphysics MN, which seem to draw on Iota, although these books are investigating paths to the ἀρχαί not as causes of being, or as causes of unity and its opposites, but rather as ἀρχαί of eternally unmoved things, especially numbers. (To that extent these books fall outside the program initiated in Γ1 of investigating the causes of being and its per se attributes, pursuing a different branch of the broader program initiated in AB.) Both Iota and MN are relatively minor pathways off of the major paths of argument in ZH and Θ, and both are mainly directed negatively against the Academics (although this should not be a reason for not studying them, since, as we will see, this is true of Z as well). But it will be important to study the argument-structures of these books, and how they fit into the larger argument of the Metaphysics, rather than ignoring them, as is often done precisely because they do not fit into a conception of the whole Metaphysics as an investigation of being quâ being.[4] Further benefits of the study of IMN will be that the way Iota draws on Δ6 and Δ9-10 on unity and its opposites will give us a model for the way that ZHΘ draw

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[incidentally, where A^b omits the τοῦ, M has it, thus allowing A^b's reading to be eliminated stemmatically. M, like A^b, has τὸ ὡς ἀληθῶς ὄν for τὸ ὡς ἀληθὲς ὄν in b33-4]. Ross' commentary takes οὐκ ἔξω ... οὖσαν to mean "not existing outside the mind" rather than "not existing outside the otherwise recognized kinds of being," relying in part on the meaning of ἔξω implied by the K parallel "what is as true … is in the interweaving of thought and is an affection in this (for this reason we do not seek the ἀρχαί of what is in this way, but of what is ἔξω and separate)" (K8 1065a21-4). however, while it makes good sense to say that being as truth does not exist outside the mind, it does not seem to make sense to say that being per accidens does not exist outside the mind; precisely because K8 takes "ἔξω" in this sense, it denies existence ἔξω only to being as truth, whereas E4 denies it both to being as truth and to being per accidens. {Kirwan takes it my way, and, curiously, this is what Ross' translation also seems to presuppose}. perhaps here or elsewhere a note on the Arabic mistranslation of λοιπὸν γένος τοῦ ὄντος; see Maurer?

[2] what is transmitted in the manuscripts (in shorter or longer versions) as the last sentence of E, 1028a4-6, bracketed by Christ and Ross and Jaeger (following Bonitz' comment ad locum), is a merely verbal variant on the first sentence of Z1, 1028a10-11. I will say something about this situation below, in discussing Jaeger's views, but for the time being it does not matter how we resolve this

[3] Iota has (what I take to be) references to Δ6, Δ9, Δ10, Δ15, Δ16, Δ22 and Δ28; for discussion of these references, and of the aims and argument-structure of Iota, see Iγ2 below

[4] thus Joseph Owens' The Doctrine of Being in the Aristotelian Metaphysics, still the closest thing we have to a read-through of the argument of the treatise, devotes about a page to Iota, five to M1-9α, and three to N (although nine pages to M9β-10, on the individuality or universality of the ἀρχαί)

on Δ7 on being (and Δ8 on οὐσία, Δ12 on δύναμις, and so on), and that Λ will draw on negative results of both Iota and N, as well as on ZHΘ.[5]

   E, too short to be a book in its own right, can never have been anything but a programmatic introduction to ZHΘ, and that is how I will treat it here; and so my treatment of E will also be an introduction to my treatment of ZHΘ. I will go back and forth between E and Δ, following Aristotle's lead when he refers us back to Δ7 in E2 and again in E4. I will start with E1, the first place in the <u>Metaphysics</u> where Aristotle specifies wisdom as "first philosophy" as opposed to physics and mathematics, as a science of separate eternally unchanging things;[6] this chapter is especially important because, for the first time, Aristotle raises the possibility that some ways of pursuing the causes of being or its attributes might <u>fail</u> to lead to the desired ἀρχαί, either because they lead to no scientifically knowable causes at all, or because they lead to causes which are known by some science, but which are not the ἀρχαί in the strict sense, the first of all things, so that the science that knows these causes will not be wisdom. This sets an important part of the agenda of the remaining books, which examine various paths to see whether they lead to separate eternally unchanging causes, often with negative results. E2-4 already investigate two such blind paths, but before treating them I will need to examine <u>Metaphysics</u> Δ. While my immediate concern for the purposes of this section will be with Δ7 on the senses of being--an extremely difficult and remarkably little studied chapter which I will discuss in detail--in order to get clear about the method and function of this chapter it will be important first to say some things about the method and function of Δ as a whole. This is particularly important because most scholars since the time of Brandis and Bonitz have thought that Δ was originally not part of the <u>Metaphysics</u> at all, but an independent Aristotelian treatise arbitrarily inserted by later editors within the great unfinished treatise consisting of, on the most common view, ΑΒΓΕΖΗΘΙΜΝ. (A few scholars have also had qualms about the status of E.) But I will avoid a detailed discussion of each of the chapters of Δ, which would risk losing the thread of the main argument of the <u>Metaphysics</u> that I am trying to bring out. (I will briefly discuss a number of chapters of Δ later on, in the places where Aristotle uses them in later books of the <u>Metaphysics</u>.) I will then return to Δ7 and, in discussing its accounts of being <u>per accidens</u> and being as truth, I will also discuss the brief arguments of E2-4 that these senses of being do not have causes which lead to the ἀρχαί, and I will also say something about the more positive account of the truth of non-composites in Θ10.

<div align="center">The aims of E1</div>

   E1 carries on the process, begun in A1-2 and continued through ΑΒΓ, of specifying wisdom more precisely (see Iα2 above). In particular, E1 argues for the first time in the <u>Metaphysics</u>, except purely aporetically in B or A8-9, that physics and mathematics are <u>not</u> wisdom. This sets the task, in the subsequent investigation of the causes of being in its various senses, of determining whether the various causal chains do or do not lead to some cause which exists beyond the sensible and mathematical things, and which is free from the deficiencies that disqualify sensible and mathematical things from being the first ἀρχαί.

   E1 begins by saying, "we are seeking the ἀρχαί and causes of beings, and it is clear that this is [of them] <u>quâ</u> beings" (1025b3-4). This is intended to place the present discussion within the inquiry announced in Γ1, and to recall Γ1's arguments about what wisdom must investigate. From this starting-point, E proceeds quite differently from Γ. E says almost nothing about the <u>per se</u> attributes of being, which are prominent in Γ but are the topic of Iota rather than of ΕΖΗΘ (the last sentence of E1, 1026a32-3, briefly mentions that the science of being <u>quâ</u> being will also deal with its <u>per se</u> attributes). Also, E has none of Γ's worries about how a single science can deal with different senses of being, or in particular with beings in different categories: this is an aporia that has already been solved, and does not need to be discussed again. However, E1 does take up one of

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[5]on the order of the books, with MN before Λ, see Iα5 above, as well as the discussions of the individual books (make sure Iα5 has the point about the phantom manuscript order MNKΛ, as in the Zeller paper)
[6]caveat about the mentions of first philosophy in Γ2-3

Γ1's theses beyond its identification of wisdom as a science of being quâ being, namely its distinction of this science from "particular" sciences such as the mathematical disciplines: as Γ1 puts it, the science we are seeking "is not identical with any of the 'particular' sciences [αἰ ἐν μέρει λεγόμεναι {ἐπιστῆμαι}], since none of these investigates being universally quâ being, but rather they cut off some part of it [some one genus of being] and consider its attribute, as the mathematical sciences do" (1003a22-6, cited above Iβ2b). E1 takes this up, but it pushes much further its analysis of the failure of the particular sciences to give causes of being quâ being-- causes, to the beings they study, of the fact that they are. To do this, E1 relies on the analysis in the Posterior Analytics of the different kinds of principles that the sciences must assume without demonstration. E1 speaks of "every science which is διανοητική or participates in διάνοια" (1025b6), all of which deal with some sort of causes and ἀρχαί, and all of which deal with some genus of being, but not with the causes of being quâ being: the paradigmatic διανοητικαὶ ἐπιστῆμαι are the mathematical disciplines, and the other group are perhaps practical sciences (pseudo-Alexander) or empirical sciences (Bonitz-Ross). All of these sciences

> circumscribe some being[7] and some genus, and treat of it, but not of being simpliciter or quâ being, nor do they produce any λόγος of the τί ἐστι, but beginning from the τί ἐστι, some making it manifest to sensation and others taking it as a hypothesis, they demonstrate, more strictly or more loosely, the per se attributes of the genus they are about: so it is clear from this kind of survey [ἐπαγωγή, sc. of the different sciences] that there is no demonstration of the οὐσία or the τί ἐστι,[8] but rather some other mode of making it manifest. Likewise they say nothing about whether the genus they treat exists or not, since it belongs to the same reasoning [διάνοια] to make manifest what a thing is and whether it is. (1025b8-18)

   Now at first sight it seems unduly harsh to say that the other sciences "produce no λόγος of the τί ἐστι": surely it belongs to meteorology to produce a definition of thunder, and while the meteorologist cannot demonstrate the definition of thunder, the metaphysician cannot be expected to demonstrate it either. But I take Aristotle's point to be that the scientist does not give a scientific definition of the genus that the science is about, nor of the simples within that genus, although he may give a scientific definition of complex things such as thunder. (This may be supported by the last sentence of the passage: the sciences "say nothing about whether the genus they treat exists or not," but hypothesize it or take it as obvious to sensation, although they do prove the existence of complexes, e.g. geometry proves the existence of a square equal to a given rectangle; and, as Aristotle says, manifesting the existence of a thing and manifesting its essence go together.) On the analysis of the Posterior Analytics, each science assumes as undemonstrated principles both the existence [εἰ ἔστι] and the essence [τί ἐστι] of the simples with which it deals (for geometry, this might include points and straight lines and circles, perhaps also the simple operations such as drawing a straight line between two given points; for arithmetic, indivisible units and the operation of adding). In a sense, the science also assumes without demonstration the essences of its complex objects, but proves the existence of those objects. Thus Euclid's Elements explicitly assumes as

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[7]reading ὄν τι with A^bM rather than ἔν τι with EJ

[8]ps-Alexander construes this instead as "it is clear that there is no demonstration of the οὐσία or the τί ἐστι from this kind of ἐπαγωγή"--whereas there might be a demonstration of a definition from some other procedure. ἐπαγωγή would then be not a survey of the different sciences, but a procedure of induction within each science that leads non-demonstratively to a universal definition. but Aristotle has been saying, not that the sciences get their definitions by induction, but that they hypothesize them or make them manifest to sensation. I take Aristotle to have suggested an enumeration of the sciences (he has in the previous sentence, mentioned mathematics and medicine in support of an inductive claim that every science which is διανοητική or participates in διάνοια deals with some kind of causes and ἀρχαί); he says "this kind of ἐπαγωγή" rather than "this ἐπαγωγή" because he has merely sketched such an enumeration and not carried it out in detail. the K parallel, K7 1064a8-10, unambiguously implies this interpretation. Kirwan follows ps-Alexander's interpretation; Ross, with some misgivings, follows the interpretation I have adopted (check 3 versions of Ross; check Bonitz, medievals). see Ross' commentary for discussion

undemonstrated principles definitions both of simples (such as point, straight line, circle) and of complexes (which as triangle, equilateral triangle, square, parallel lines), and also postulates, which can be taken as asserting the availability of some simple operations, or the existence of the simple objects they construct; Euclid then demonstrates, alongside many non-existential propositions, the existence of many of the complexes he has defined (e.g. equilateral triangle I,1, parallel lines I,31, square I,46).[9] However, in Posterior Analytics II,10 Aristotle distinguishes between two kinds of definitions of complexes, what are traditionally called nominal and real definitions: the science presupposes the nominal definitions of the complex objects it treats, perhaps simply borrowing these definitions from ordinary unscientific usage ("thunder is noise in the clouds"), but in demonstrating the existence of an object meeting the nominal definition, using the appropriate cause as a middle term (noise belongs to extinction of fire, extinction of fire belongs to clouds, therefore noise belongs to clouds), the science also manifests the properly scientific definition ("thunder is noise due to the extinction of fire in the clouds"), although it cannot demonstrate this definition.[10] This is clearly what Aristotle is referring to here when he says that it belongs to the same reasoning [διάνοια] to make manifest what a thing is and whether it is. Each particular science produces such a reasoning to demonstrate the existence, and non-demonstratively manifest the essence, of the complex objects that it treats. But the science does not produce any reasoning to manifest either the existence or the essence of its simples: either it just takes them as manifest from sensation, or, where they cannot be ostended, it hypothesizes, as arithmetic hypothesizes indivisible units and geometry hypothesizes perfectly straight lines.[11] The result is that, while the particular science does indeed give the causes of being, both as existence and as essence, to the beings within its genus, it is giving the causes of being only to the complexes within its genus, but not to the simples within the genus, and so not to the genus as a whole: it traces the cause of the being of the complexes back to the simples, but leaves the being of the simples unexplained.

However, given that all of this seems to follow from the general account of science in the Posterior Analytics, it would seem to be true of all sciences; whereas Aristotle in E1 seems to be distinguishing between lower sciences, which have this deficiency, and wisdom, which does not. How can wisdom break the general rule, and deliver the causes of being to all beings universally?

I think to some extent the answer is that it cannot, and that the search for "the science we are seeking" will be disappointed. Certainly if we expect that metaphysics will produce scientific definitions of the things hypothesized as simples in the other sciences, and will demonstrate the existence of all of these objects, we will be disappointed.[12] But this is an unduly pessimistic way of putting the point. What Aristotle thinks is that we cannot discover the causes of being quâ being

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[9]I am deliberately avoiding many difficulties (including the anomalous fourth postulate). the assertions of existence are all framed as problems rather than theorems, i.e. they show how to construct an object of a given type having prescribed relations to given objects (e.g. an equilateral triangle on a given base). more powerful problems, such as constructing a square equal to a given rectilineal figure (II,14), are also of this logical form and are also in a sense existential propositions (they could also be taken as asserting the existence--i.e. the availability, expressible by ἔστι potential--of an operation such as squaring a rectilineal figure). I am bringing Euclid in merely for sake of illustration, and without commitment to how close an Elements of Geometry in Aristotle's time would have been to Euclid, whether Euclid is responding to Aristotle or other Academic theories of science, etc.

[10]likewise the nominal definition of squaring a rectangle is "constructing a square equal to the rectangle"; closer to the real definition is "finding a mean proportional between the sides of the rectangle [and constructing a square on that base]" (Aristotle's example, n shorthand form, in B#1 996b18-22--note that he puts this as a definition of the operation rather than of the resulting object); the full real definition would be given by the construction-procedure for finding a mean proportional

[11]Ross misses the point in his note ad locum; he says that knowing εἰ ἔστι and τί ἐστι do not happen simultaneously, but that "the mode of knowledge" (my emphasis) is "of the same type in both cases"; "It is in fact in both cases immediate apprehension, not demonstration, and this is what Aristotle means by τῆς αὐτῆς διανοίας". (as Ross says, the Posterior Analytics says that we ask what X is only once we know that X is; but at this stage we do not have demonstrative knowledge that X is, and when we find this we will also find out scientifically what it is [we must have had at least a nominal definition all along, or we could not have recognized the ostended thing as an X]).

[12]a number of medieval philosophers, starting from things in Alexander, do think that metaphysics will demonstrate the principles of the particular sciences (this may be innocent if they just mean the principle of noncontradiction and the like): this is, I think, in both Fârâbî and Avicenna

unless we first distinguish the senses of being (and of cause). Some of the causal chains that we can distinguish will not lead beyond the particular sciences, or not very far beyond--some chains might lead up from a particular branch of mathematics to a higher branch or to "universal mathematics," or from a particular physical investigation to general physics. In particular, Aristotle seems to think that none of the causes that would be included in the definition of a thing, on the model of the Posterior Analytics, will lead to the highest ἀρχαί. But at the present stage of the argument these distinctions have not yet been introduced. And, without these distinctions, Aristotle has available to him a plausible model, which will need critical examination, for how a universal science of all beings might demonstrate the existence (and thus also manifest the essence) of the things assumed as simples by the other sciences.

    That model is, of course, Platonic dialectic. Already in Metaphysics Γ Aristotle had taken up the Republic's promise of an ἀνυπόθετος ἀρχή, although the ἀρχή of Γ3-8 was a principle of demonstration rather than a first being. Now in E1 Aristotle is ostentatiously drawing on the Republic's contrast between the mathematical disciplines, which depend on hypotheses that they cannot demonstrate, and the higher discipline--dialectic, according to the Republic--which alone grasps the highest ἀρχή, which alone is able to give the λόγος of what each thing is, and which alone gives unhypothetical knowledge (so Republic VI 510b2-511d5, VII 533a8-e2, 534b3-6). When E1 describes (especially) the mathematical sciences as διανοητικαί, this might be opposed to practices that involve action or sensation rather than reasoning, but it is also opposed to an unhypothetical intellectual grasp of ἀρχαί: at Republic VI 511c3-d5 and VII 533b6-e2 the mathematicians, because they are dependent on hypotheses of which they can give no further λόγος, fall short of knowledge in the full sense (called νοῦς in Republic VI, ἐπιστήμη in Republic VII) and have only διάνοια, which is intermediate between true knowledge and mere opinion. Aristotle is saying, like Plato, that the διανοητικαί sciences must hypothesize their subject-matters, or else rely on sensation to make them manifest--thus wisdom, not being subject to these deficiencies, must be something higher than διάνοια. For Plato, as for Aristotle, the hypotheses of the sciences include the existence of their subject-genera or of their simples (at Republic VI 510c2-5, arithmeticians and geometers hypothesize the even and the odd and the figures and the three kinds of angles [sc. right, acute and obtuse]; at Republic VII 524d9-526a7, indivisible and equal units cannot be found in sensible things, with the apparent implication that the arithmetician must hypothesize their existence). For Plato, dialectic examines the hypotheses of the sciences with a view to proving them or disproving them on the basis of some higher hypothesis, or ultimately of the ἀνυπόθετος ἀρχή. Presumably a higher science could thus prove the existence of the objects which mist be hypothesized as simples by the lower sciences. And we have an example of how Plato hoped this might work in the second hypothesis of the Parmenides, where starting from hypothesizing unity and being and the participation of unity in being, Plato sketches a deduction of the existence of infinitely many units, of two and three, twice and thrice, and the various kinds of numbers (142c7-144a9), and, even more sketchily, of the different kinds of shapes (145a4-b5); presumably the various accounts of the generation of numbers and shapes from the One and the indefinite dyad would have had a similar intention. Of course Aristotle does not believe that any of this works, but it is an example of the kind of possibility he is considering in our passage of E1, where a higher science would give a cause of being to everything in the genus treated by the lower science, not just to its "complexes," but also to its "simples," which are no longer simple and primitive from the point of view of the higher science, Aristotle will return in Z17 to the kind of cause of existence described in Posterior Analytics II, which in Aristotle's judgment will not lead to the desired ἀρχαί. But before we can pass any judgment, we need to distinguish the different senses of being, which will have different kinds of causes, and will lead to different proposals for what the highest science will be.

First philosophy, physics, mathematics, dialectic

Aristotle continues to add to the specification of wisdom by talking about the sciences that fail to be wisdom; some of the ways of pursuing the causes of being will turn out not to lead beyond these sciences.

Already in Metaphysics A and B, Aristotle was dealing with several competing disciplines that claim to be wisdom, and that claim that their ἀρχαί are the ἀρχαί absolutely. The physicists thought that physics was wisdom, and that the first material and efficient causes of natural things are the ἀρχαί of all things; the Pythagoreans and sometimes the Academics claim that mathematics is wisdom, and that the generating principles of numbers (the One and the dyad or the like) are the ἀρχαί of all things; sometimes the Academics claim that dialectic is wisdom, and that the most universal things (perhaps being and the One) are the ἀρχαί of all things. Aristotle has raised difficulties for all these claims in B, and he has done so in order to motivate his own claim that wisdom is none of these three, but a new discipline of "first philosophy." E1, for the first time in the Metaphysics, makes something like this claim; but, as we will see, only with a series of conditions which will be removed only in the subsequent argument of the Metaphysics.

Wisdom is a theoretical rather than a practical or productive science, as we know already from A1-2 (recalled E1 1026a22-3: "the theoretical sciences are more choiceworthy than the other sciences, and this [is the most choiceworthy] of the theoretical sciences"). So in narrowing it down further Aristotle tries to distinguish it from other theoretical sciences. Aristotle, like Plato, takes the mathematical disciplines to be paradigmatically theoretical; he also makes the more controversial claim that physics is theoretical. His official argument is by exclusion: physics cannot be a practical or productive science because the objects of practical and productive knowledge have their ἀρχαὶ κινήσεως in the agent, whereas natural things have their ἀρχαὶ κινήσεως in themselves, So "if all reasoning [διάνοια] is either practical or productive or theoretical, physics would be a kind of theoretical [science] [θεωρητική τις], but theoretical about this kind of being which is capable of being moved, and about a substance-in-the-sense-of-the λόγος which is for the most part inseparable only" (1025b25-8).[13] Physics is "a kind of theoretical science, but …." This comes against the background of the Platonic assumption that physics is not a theoretical science at all. This is connected with the Platonic assumption that only dialectic gives definitions or says τί ἐστι (mathematics presumably takes over definitions hypothetically), and therefore that only dialectic is in a position to give demonstrations (mathematics gives demonstrations hypothetically), while physics is merely narrative, concerned with how things come-to-be rather than with what they are, and therefore unable to demonstrate.[14] By contrast, Aristotle asserts and argues (1025b28-1026a6, cited and discussed in Iβ2c above) that it belongs to physics, not to dialectic, to give scientific definitions of natural things.[15] This means rejecting the division of labor according to which physics deals with matter and dialectic with form: it belongs to physics, not to dialectic, to grasp the forms of natural things, which are the objects of their definitions. Dialectical definitions would describe the form without reference to the matter, but Aristotle argues that the form of a natural thing cannot be known without the matter and its natural motions, and therefore that dialectical definitions cannot be scientific. "Of things-defined and τί-ἐστι-s, some are like the snub and some are like the concave," the snub being "taken-together with the matter [i.e. nose]" (1025b30-33); natural things are "said like the snub" (1025b34-1026a1) and can be defined only in the way that the snub can be defined. As Aristotle will argue in detail in Z5 (discussed below IIγ1b), this kind of

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[13]cited from Iβ2c above, note there textual issue at 1025b28, make sure translation in both places consistent with your choice

[14]besides the Timaeus on physics as a μῦθος and at best εἰκώς, Republic VI 533b3-6 says of all the arts except dialectic and the mathematical disciplines that ἢ πρὸς δόξας ἀνθρώπων καὶ ἐπιθυμίας εἰσὶν ἢ πρὸς γενέσεις καὶ συνθέσεις, ἢ πρὸς θεραπείαν τῶν φυομένων τε καὶ συντιθεμένων ἅπασαι τετράφαται. this must include physics, presumably as being concerned with γένεσις; the context suggests that arts concerned with γένεσις are productive, and that may well be how Plato thinks of physics--the world is a divine artifact. cp. the text of PA I,1 contrasting physics with the theoretical arts and apparently implying that it is productive, which I cite in "Physics as a Virtue" and doubtless somewhere in here too; and see "Physics as a Virtue" for the Stoic view, apparently that physics is simultaneously theoretical and practical and productive

[15]the contrast with dialectic is not made explicit here, but it is in the De Anima I,1 parallel discussed in Iβ2c

definition is logically non-ideal: we cannot say what it is to be snub in general (if we define "snub" ether as "concave" or as "concave nose" we are subject to refutation); we must rather say what it is <u>for a nose</u> to be snub, and so give a definition of the form that presupposes and is inseparable from its matter. This explains the sense in which physics is "a kind of theoretical knowledge, but …", giving "definitions "but …", of forms "but …"; but these are the only kinds of science, definition, and forms that natural things can have.[16]

Having argued that physics as well as mathematics is a theoretical science, Aristotle argues--with conditions--that wisdom is neither physics nor mathematics. As we saw in Iα3, Aristotle takes it as uncontroversial that the first ἀρχαί will be both eternal and separate, where "separate" means not "separately from matter," but "separately existing" in the sense discussed in Iβ4. It is <u>not</u> uncontroversial that the ἀρχαί are <u>unchangingly</u> eternal--they might, for instance, be Democritean atoms or Empedoclean "roots," which are subject to local motion. Mathematics will be disqualified from being the science of the ἀρχαί, <u>if</u> its objects do not exist separately. And physics will also be disqualified, on the ground that its objects are changeable, <u>if</u> there are also separate unchangingly eternal things. (This conclusion needs the premises that any separately eternal unchanging things would be prior to all changeable things, but perhaps Aristotle thinks this is obvious, or perhaps he assumes that the only way we could establish the existence of separate unchangingly eternal things is if they are causes of changeable things, and therefore prior to them.)

Aristotle says:

> So that physics is theoretical[17] is manifest from these [considerations already given]. But mathematics too is theoretical; however, at the moment it is unclear whether it is about unmoved and separate things, but it is clear that it considers [θεωρεῖ] some objects [μαθήματα] <u>quâ</u> unmoved and <u>quâ</u> separate.[18] If there is something eternal and unmoved and separate, it is manifest that it belongs to a theoretical [science] to know it, but not to physics, since physics is about movable things,[19] nor to mathematics, but to [a science] prior to them both. For physics is about things which are separate but not unmoved [περὶ χωριστὰ μὲν ἀλλ᾽ οὐκ ἀκίνητα],[20] and some

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[16]for fuller discussions see both Iβ2c (on indefinability of form apart from matter) and IIγ1b (on logical difficulties of defining the snub--the application in Z5, discussed there, has nothing special to do with physics)

[17]A^{b}M θεωρητική τις might be right; the τις might be either alienating or not … two more minor issues, the ordering of the three adjectives at a11-12, and the γε and ἑτέρας in a13: M agrees with A^b on both

[18]I am taking ἔνια μαθήματα as objects of θεωρεῖ, ἡ μαθηματική as its subject; it would also be possible to take μαθήματα as the disciplines rather than their objects, and subject rather than object of θεωρεῖ (so Ross, and note the parallels he cites on μαθήματα), thus "some mathematical disciplines consider [their objects?] <u>quâ</u> unmoved and <u>quâ</u> separate," but the lack of an object for θεωρεῖ is odd. [NB the θεωρεῖται in Jaeger's report of J is a figment of Jaeger's imagination.] in any case, "some" must mean "except astronomy/astronomicals, which studies/are things in motion and <u>quâ</u> in motion"--unless Schwegler is right, see next note. perhaps note some other textual issues: a9 μέντοι/μὲν οὖν, a8 ἐστι, νῦν/ἔτι νῦν (here Jaeger's report is right against Ross); but both of these seem decidable on stemmatic grounds. also somewhere note the 1026a3 ἀεί issue, before this passage

[19]there seems no sufficient reason for bracketing this phrase with Jaeger, not that it adds anything. also note Schwegler's turning the second ἤ into μή--I don't think this is justified. however, it does help to explain 1026a14-15: it would be odd to say we don't yet know whether math is about separables, and a few lines later, without further argument, to say it isn't. what would the ἔνια be? maybe universal mathematics, which clearly isn't about separate universal mathematicals; although it's not obviously right to say that it's about things in <u>matter</u>. there's a question whether at a14-15 the ἔνια explains that at least some are about unmoved things, or that at least some are about inseparable things

[20]Reading ἡ μὲν γὰρ φυσικὴ περὶ χωριστὰ μὲν ἀλλ᾽ οὐκ ἀκίνητα, with Christ and Ross and Jaeger, for the manuscripts' (and Bekker's and Bonitz') ἡ μὲν γὰρ φυσικὴ περὶ ἀχώριστα μὲν ἀλλ᾽ οὐκ ἀκίνητα. This emendation--the most famous textual issue in the <u>Metaphysics</u>--is usually credited to Albert Schwegler, who at <u>Die Metaphysik des Aristoteles</u> (Tübingen, 1847-8), v.4 p.16 proposes to replace the transmitted ἀχώριστα with either χωριστά or τὰ χωριστά; however, one of these emendations is evidently presupposed already at Ch.L. Michelet, <u>Examen critique de l'Ouvrage d'Aristote intitulé Métaphysique</u> (Paris, 1836), p.162 {see my discussion in the Zeller volume}. (With the transmitted reading, ἀχώριστα would have to mean "inseparable <u>from matter</u>"; with the emendation, χωριστά means "existing καθ᾽ αὑτά".) The emendation is accepted by the large majority of Anglophone and German scholars, but rejected by some Francophone and Italian scholars (Aubenque initially accepted the emendation, then reversed himself, see Iα5 above);

parts of mathematics are about things which are unmoved, but perhaps [ἴσως] not separate but rather [existing] as in matter; but the first [science] is about things which are both separate and unmoved. (1026a6-16)

Aristotle is here strongly insinuating that mathematics will not be wisdom (he often uses ἴσως in a way that expresses no doubt), but he knows that he has not <u>proved</u> it. We will have proved that mathematics is not first philosophy only when we have examined the status of mathematical objects and shown that they do not exist separately, which Aristotle does (taking up lines of inquiry from B#5 and #12) only in M2-3; and perhaps, beyond examining the status of mathematical objects themselves, we must also examine the status of the ἀρχαί of mathematical objects, as Aristotle does in other parts of MN. Likewise, Aristotle strongly insinuates, and at the end of this passage actually asserts, that physics will not be wisdom, but once again he recognizes that he has not proved this. "<u>If</u> there is something eternal and unmoved and separate" (and if, as Aristotle assumes, such things will be prior to all changeable things), then the science of this object will be more intrinsically worth having, and will have a stronger claim to be wisdom, than physics. So, as Aristotle says below, "<u>if</u> there is some unmoved οὐσία, [the knowledge of] this is prior and first philosophy" (1026a29-30, my emphasis); but "if there is no other substance beyond those constituted by nature, physics would be the first science" (1026a27-9). Thus in order to prove that some causal chain does not lead from natural things to ἀρχαί that are objects of wisdom, it would be sufficient to show that it does not lead to anything separately existing and <u>eternal</u>, but showing that it does not lead to anything separately existing and <u>unchanging</u> is <u>not</u> sufficient, unless we also show that some other chain <u>does</u> lead to a separately existing unchanging cause. If there were no separate eternally unchanging things, the first science might be (say) the study of the heavenly bodies, and this possibility is not excluded until <u>Metaphysics</u> Λ.

   Two things should be stressed about our passage 1026a6-16. The first is that it is not just a neutral classification of the theoretical sciences, although it was often used this way by later philosophers: it has the specific function of excluding physics and mathematics from being wisdom, against real opponents who did think one of these sciences was wisdom. The second is that physics and mathematics are being excluded on different grounds, not on two degrees of the same ground.[21] On the transmitted and traditionally accepted reading, physics would be about things that are moved and inseparable, mathematics about things that are unmoved but inseparable, first philosophy about things that are unmoved and separate. "Separate" would then have to mean "separate <u>from matter</u>," and the different sciences would be characterized by different degrees of

the best defense of the transmitted reading is Vianney Décarie, "La physique porte-t-elle sur des 'non-séparés' (ἀχώριστα)?", <u>Revue des Sciences philosophiques et théologiques</u> v.38 (1954), pp.466-8. The objections to the transmitted text are, fundamentally (1) that it is very hard to make sense of the contrast "ἀχώριστα <u>but</u> not unmoved," since we would <u>expect</u> things inseparable from matter to be moved, and furthermore (2) that, as we saw in Iβ4, "χωριστόν" in Aristotle normally means "existing καθ ᾽ αὐτό", unless the context specifies separate-from-what. Décarie replies to the first objection by pointing out that mathematical things are on Aristotle's view be inseparable from matter and yet unmoved, so it would be worth saying that natural things, although inseparable from matter, are moved, unlike the mathematicals. But clearly it is mathematicals which are the exceptional case, which deserve, and get, an adversative particle when Aristotle introduces them in the next line [ἀκίνητα μέν, οὐ χωριστὰ δέ, 1026a15]; 1025b34-1026a3 have stressed, in the same breath, that natural things cannot be defined without motion, or without matter, and so if we are reminded that they are inseparable from matter it will be all-but-automatic that they are not unmoved.
[21]these claims are directed, not just against much traditional interpretation of E1, but also against Philip Merlan, <u>From Platonism to Neoplatonism</u>, esp. pp.59-62 (but also through p.73), who says that the threefold classification here comes from a Platonic tripartition of sensible things, mathematical things, and Forms, with corresponding sciences, and that Aristotle has no legitimate grounds within his own philosophy to reassert this tripartition … it's not esp. close to Plato, a tripartition of physics, mathematics and dialectic would be closer to Plato, but Aristotle's first philosophy is none of these (if you say it's about separate unchanging things and Plato believes, albeit falsely, that the Forms are such, well, Plato also believes, falsely, that the mathematicals are such) … Merlan, who rightly accepts the emendation and the consequent reconception of "separation," sees that Aristotle is using a 2x2 classification, but thinks this is illegitimate because one dimension is based on a <u>ratio essendi</u>, the other on a <u>ratio cognoscendi</u>; even if this were true it wouldn't make the classification illegitimate (although note Merlan's more particular challenge p.72), but it's not, Merlan misinterprets abstraction, mathematicals are distinct objects with their distinct <u>ratio essendi</u>, they're just not separate

separation of their objects from matter, mathematics abstracting from matter in such a way that these abstractions are eternally unmoved without having a real existence apart from matter, and first philosophy dealing with things really existing apart from matter. In fact, however, only mathematics that falls short of wisdom on the ground that its objects are inseparate, while physics falls short on the different ground that its objects are moved, as in K1 1059b12-14, "but the science we are now seeking is not about the mathematicals, since none of them is separate; nor is it about sensible οὐσίαι, since they are corruptible" (cited in Ια3 above). The difference from K1 is that E1 does not say (falsely on Aristotle's own grounds, though he says the same thing at B#8 999b4-5) that all sensible οὐσίαι are corruptible, but only that they are all movable; but then the inference that they are not objects of wisdom is no longer automatic.

　　Aristotle's preferred causal chain for reaching eternally unmoved ἀρχαί is, of course, from sublunar things to the heavenly regulators of sublunar cycles, and then from the heavenly bodies to their incorporeal movers. This preferred chain comes through in his description in E1 of the "separate and unmoved things" that first philosophy is about: "all causes must be eternal, but especially these, for these are causes to the manifest divine things [i.e. to the heavenly bodies]. So there would be three theoretical philosophies, μαθηματική, φυσική, θεολογική: for it is not unclear that if the divine exists anywhere, it is in this kind of nature, and the most valuable [science] must be about the most valuable genus" (1026a16-22).[22] The movers of the heavens will themselves surely be divine, but here what Aristotle seems to be saying is that this science has the best right to be called θεολογική because it is about the <u>causes</u> of the only genus of divine things whose divinity is manifest to us. There is an implicit contrast with Academic programs of finding the ἀρχαί as the causes of <u>numbers</u>--Xenocrates claimed that the numbers were divine and even that they were the true meaning of the mythical gods (Zeus is the monad and the Mother of the Gods is the dyad, Fr.213 Isnardi-Parente), but this is a dubious piece of speculation and far from manifest to us (Aristotle counter-claims that the heavenly bodies are the true meaning of the mythical gods, <u>Metaphysics</u> Λ8 1074a38-b14).[23] Perhaps there is also a contrast with Platonic dialectic, since Plato repeatedly contrasts the Forms to their sensible imitations as divine to human things (<u>Republic</u> X 597b5-14, <u>Parmenides</u> 134d9-e8, <u>Philebus</u> 62a7-11), and once again Aristotle rejects such dubious divine posits ("[the Platonists] say that there is a man-himself and horse-itself and health-itself, and nothing else, doing something close to those who said that there were gods, but in human form: for neither did those people [the poets] make [the gods] anything other than eternal men, nor do these people [the Platonists] make the Forms anything other than eternal sensibles" B#5 997b8-12, cited in Ια4 above). Whether for Plato or Xenocrates or Aristotle, the language of divinity is used to claim a privileged status for the favored science, and to challenge the claims of the poets; this description is not constitutive of the science, and "θεολογική" is an attribute rather than the proper name of Aristotle's first philosophy. Aristotle is nonetheless perfectly serious. He is not saying that his discipline is θεολογία--the θεολόγοι are the mythologizing poets, θεολογία is what they do, and it is far from being a science[24]--but in calling his discipline θεολογική and contrasting it with φυσική, he is inevitably recalling the ancient quarrel between θεολόγοι and φυσικοί. Like Plato in <u>Laws</u> XII (966d6-968a1), Aristotle is saying that while the beginnings of physics tended to banish the divine from the world and specifically from the heavens, the progress of physics and the realization that the heavenly motions are governed by precise mathematical laws leads us to a restoration of the divine, understood in a higher way than the poets had understood it, and to knowledge of a realm superior to the physical. As far as we could tell from <u>Metaphysics</u> E1, "divine" might be understood in quite a loose sense ("sharing some traditional attributes of the gods, e.g. eternity and perfection"). In fact Λ7 will argue, delivering on a promise from A2, that the

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[22]text-notes: esp. the oddity of the reported alternative reading αἰσθητῶν at 1026a18. M agrees with A[b] throughout this passage
[23]in all fairness, Xenocrates too identified the heavenly bodies, and various other parts of the cosmos or things present in them, with gods (see subsequent fragments in Isnardi-Parente). the numbers still have the priority
[24]see Bodéüs for a survey of the evidence

first ἀρχή falls under a precise concept of a god,[25] but this goes beyond the promises of E1, which speaks only of the divine and not of gods.

   Although E1 1026a16-22 thus suggests Aristotle's preferred causal path to the ἀρχαί, at the current stage of the argument he cannot yet establish precisely the nature of wisdom. In particular, nothing he says in E1 rules out the possibility that if there is a third science superior to mathematics and physics, that science will be Platonic dialectic. We have seen that much of his description of the desired science at the beginning of E1 echoed things Plato says about dialectic in the Republic. And, if Plato were right about the status of dialectic, dialectic would be first philosophy. When Theophrastus says that Plato "concerned himself mostly with first philosophy, [but] also applied himself to the phenomena and touched on περὶ φύσεως ἱστορία" (Fr.230 FHS&G), it was presumably dialectic (perhaps also mathematical speculation) that Plato was mainly pursuing. Aristotle, of course, denies that dialectic is any science, let alone the most valuable science. But we should not conclude that Plato and Aristotle are using "dialectic" to refer to two different disciplines. The Republic and the Topics are describing the same practice of attempting definitions and attempting to refute them by questioning; both Plato and Aristotle had participated in this practice in the Academy, but they disagree about its status. For Plato it produces a scientific grasp of the eternal separately existing οὐσίαι of things, the Forms. For Aristotle, there are no such Forms, and so there can be no science of them. There are indeed forms which are οὐσίαι of sensible things (individual forms which are not eternal, and species-forms which are eternal but do not exist separately from the individuals), and there can be a science of these forms, although that science falls short of being first philosophy. But, as we saw above, Aristotle thinks that dialectic is not that science, and does not produce a scientific grasp of these forms; rather, the scientific definition of the form of a natural thing will be one that grasps it as inseparable from its matter, and will be the work of physics rather than of dialectic. Aristotle has quickly sketched an argument at E1 1025b28-1026a6 that natural things need physical definitions, but that passage, and E1 generally, never even use the word "dialectic." The conclusion that dialectic is not first philosophy will rest, not on E1's brief description of the different disciplines, but on Z's careful examination of the causal routes that are supposed to lead from natural things to separate eternal Forms as their οὐσίαι, and its arguments that these routes do not succeed.

   What E1 does, then, is to raise aporiai suggesting that physics, mathematics and dialectic are not first philosophy, and to suggest the pursuit of a new causal route that will lead from the manifest things to separate unchanging causes. Proof that one route succeeds and that others do not must wait for later books of the Metaphysics. In a sense, E1 is just restating the aporia from B#5. The parallel is perhaps clearest from the shorter formulation of the aporia in K, asking "whether the science we are now seeking is about the sensible οὐσίαι or about some others; if it is about others, it would be either about the Forms or about the mathematicals. But it is clear that there are no Forms …. But the science we are now seeking is not about the mathematicals, since none of them is separate; nor is it about sensible οὐσίαι, since they are corruptible" (K1 1059a39-b3, b12-14, cited in Iα3, and in part above). To say that the science we are seeking is not about sensible οὐσίαι, mathematicals or Forms is to say that wisdom is not physics, mathematics or dialectic, the only disciplines that had been proposed. Of course K1 is just raising an aporia, and neither proposes a solution (a new discipline of first philosophy, with new non-sensible οὐσίαι as its objects) nor gives anything like a conclusive argument that the old disciplines cannot be sciences of separate eternal things.[26] We might also wonder why we could not just say that there are no separate eternal things, and thus no ἀρχαί in the strict sense at all (presumably the answer is that "if there is nothing eternal and separate and abiding" there would be no stable cosmic order, so K2 1060a26-7 [in the K parallel to B#8], closely echoed at Λ10 1075b24-7). But for all these limitations the aporia is pointing the way to a new science. E1 is taking up the aporia, in something more like the K than

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[25]see IIIγ2

[26]this passage simply asserts without argument that there are no Forms, and its argument against mathematicals, parallel to the argument in B#5, is far from decisive; and, as noted above, it is not true on Aristotle's own account that all sensibles are corruptible. for discussion of these issues in K, see Iα5 above and its appendix on K

like the B formulation, and proposing to solve it by developing a new science of first philosophy that will avoid the difficulties against the old disciplines, and proposing to get to this new science by studying the causes of being, in its various senses, and seeing which of them lead to separately existing unchanging substances. The positive answer to the aporia is not completed until Λ, so in a sense Metaphysics E-Λ are all devoted to B#5; but they deal with many other aporiai en route, and are guided by other aporiai in working toward solving B#5.

Universal because first

The term "first philosophy" seems to get its meaning mostly by contrast with the other parts of philosophy, and especially with physics. If there were no separately existing unchanging substances, then in theory there would still be a first philosophy, but it would simply be physics-- "if there is no other substance beyond the ones constituted by nature, physics would be [the] first science" (E1 1026a26-8)--and there would be no need for the special title "first philosophy." Except in this passage, Aristotle uses "first philosophy" (or equivalents such as "first science") only for a science of separate unchanging οὐσίαι. The present passage, E1 1026a23-32, is the first place in the Metaphysics where "first philosophy" (or the equivalent) is thematized, although there are two more incidental mentions in Γ (see below), as well as the references outside the Metaphysics collected in the appendix to Iα1 above. It is clear from E1 1026a22-3 ("the theoretical [sciences] are more choiceworthy than the other sciences, and this [sc. θεολογική, as about the most valuable genus] than the theoretical [sciences]") that the description of first philosophy is intended as a stage in the process begun in A1-2 of progressively defining wisdom more and more precisely; and in any case we know from ethical texts that wisdom is about the most valuable or divine genus (thus "wisdom is ἐπιστήμη and νοῦς of the things which are most valuable [τιμιώτατα] by nature," NE VI,7 = EE V,7 1141b2-3, cited in the appendix to Iα1). Thus "first philosophy" and "wisdom" are coextensive; in general, Aristotle calls it "wisdom" in ethical contexts, where he is contrasting it with intrinsically less valuable ἕξεις, and "first philosophy" in physical contexts, where he is contrasting it with physics as two sciences with different subject-matters (again, see the Iα1 appendix).

What is perhaps less immediately clear is that first philosophy will also be identical with the "science of being quâ being" from Γ.[27] Although E1 starts by referring back to this science, and goes on to talk about first philosophy, it is at first sight not obvious that the universal science will be identical with first philosophy--it might instead "divide" into physics and mathematics and first philosophy, as mathematics "divides" into arithmetic and geometry and so on. This view of the relationship of the disciplines might be supported by a passage from Γ: "there are as many parts of philosophy as there are [kinds of] οὐσίαι, so that there must be first and a second among them. For being immediately has [i.e., divides into] genera; for this reason the sciences too will follow these. For the philosopher is like the so-called mathematician: for it [sc. mathematics] too has parts, and there is a first and a second science and the others in sequence among the mathematical [disciplines]" (Γ2 1004a2-9, cited in Iβ2b).[28] However, a later passage in Γ suggests that wisdom will be identical with the universal science of Γ1-2. Aristotle is saying that it belongs to the person who studies being quâ being to consider universal truths such as the principle of noncontradiction; "for which reason none of the particular investigators tries to say anything about them, or whether they are true or not, neither a geometer nor an arithmetician, but some of the physicists did, and it was reasonable for them to do this: for only these [sc. the physicists] thought they were investigating about all of nature and of being. But since there is someone even above the physicist

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[27] see discussion in earlier sections (where exactly?) of how many sciences are named by "wisdom." "first philosophy," and "science of being quâ being," against Aubenque, Stevens (and Leszl), and Dorion, who, while they say different things about "wisdom," agree that first philosophy is not the same as the science of being quâ being. if my interpretation of Γ1, given in Iβ2 above, is correct, then the science treating being quâ being, introduced in that chapter, must be the same as the wisdom or science of the ἀρχαί from AB, so if first philosophy is identical with one of these, it must be identical with the other

[28] see the discussion of issues about this passage (its text, its place in the sequence of Γ2, its interpretation) in Iβ2b

(for nature is some <u>one</u> genus of being), the investigation of these things too would belong to the person who considers universally and about the first [kind of] οὐσία; for physics too is <u>a</u> wisdom [σοφία τις], but not the <u>first</u>" (Γ3 1005a29-b2, cited in Iβ2b).[29] Is the person above the physicist someone who studies a <u>more universal</u> genus than nature, or someone who studies a <u>nobler</u> genus than nature? Apparently both, since he investigates both "universally" and "about the first [kind of] οὐσία." Presumably the way this would work is that the person who studies unchanging οὐσίαι will also know the universal truths about all beings which they somehow cause, and will come to know the causes just through studying these effects, e.g. he will first know the law of noncontradiction, will recognize that this law depends on an eternally unmoved cause, and will infer that there is such a cause; the end of Γ8 (1012b22-31) sketches such an argument, but it leaves the details vague.[30]

   In any case, whatever we might have thought about the object of first philosophy from Γ, E1 explicitly raises the question, and answers it:

> Someone might raise the aporia whether first philosophy is universal or about some one genus and nature--for [it does not always work] the same way even in mathematics: geometry and astronomy are about some [particular] nature, but universal [mathematics] is common to them all. So if there is no other οὐσία beyond the ones constituted by nature, physics would be [the] first science, but if there is some unmoved οὐσία, [the knowledge of] this is prior and first philosophy, and universal in this way, by being first [καθόλου οὕτως ὅτι πρώτη]: and it would belong to this to consider being <u>quâ</u> being, both what it is and what belongs to it <u>quâ</u> being. (E1 1026a23-32)[31]

Just before this passage Aristotle has said that the most valuable science will be about the most valuable and divine genus: on this description the first philosophy will be about a different genus from physics, as among the mathematical disciplines arithmetic is about a different genus from geometry. But, an objector points out, even in mathematics this is not the only way that a prior and a posterior discipline can relate. Geometry is prior to astronomy and explains the truth of some propositions about astronomical things, by being about prior geometrical things: a theorem about spherical triangles (say) will apply in the first instance to unmoved geometrical spherical triangles, and only for that reason to moving astronomical spherical triangles. But universal mathematics is also prior to geometry and astronomy, and explains the truth of some propositions about geometrical and astronomical things, not by having its own domain of objects, but simply by demonstrating universal propositions (about proportions and the like, as in Euclid <u>Elements</u> V) which apply equally to lengths, speeds, and all other species of quantity. So, if we are seeking a science of being <u>quâ</u> being, might this be analogous to universal mathematics, being prior to all the particular sciences without having its own particular object-genus?[32] Indeed, this would be the most natural view to take out of Γ2 1004a2-9. But here Aristotle's answer is that first philosophy is indeed universal, but "in this way, by being first" (οὕτως looks forward and is picked up by ὅτι πρώτη): that is, because it is concerned with the ἀρχαί, the first things, and because the ἀρχαί are causes, to all things, of the fact that they are and of the attributes that belong to them because they

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[29]again see discussion in Iβ2b

[30]for discussion of the person above the physicist, and how he relates to principles such as the law of non-contradiction, see Iβ2b

[31]text-notes, nothing major: maybe the main issue is ἡ vs. ἐκείνη in a27 (and perhaps τινα should be omitted in a25). M agrees with A[b] throughout this passage

[32]Aristotle is clearly considering two possible mathematical models for first philosophy: it is either a science of some particular genus, like geometry and astronomy, or it is universal, like universal mathematics. each model would be connected with a way of thinking about the priority-relations of first philosophy to other philosophical disciplines. it is less clear whether the text is explicitly mentioning these different kinds of priority-relations: when he says "geometry and astronomy are about some particular nature," does he mean "first philosophy might be to physics as geometry is to astronomy," or just "first philosophy might be like geometry and astronomy"? the passage is usually taken the second way, but Michel Crubellier and Pierre Pellegrin, in <u>Aristote: le philosophe et les savoirs</u> (Paris, 2002), pp.388-9, take it the first way, and they may well be right

are, the first philosopher will also have scientific knowledge of being and its universal attributes. Of course the first philosopher will start from the effects, being and its attributes, but he will have scientific knowledge of them (or, anyway, his knowledge of them will be first philosophy) only when he has traced them back to the ἀρχαί as their causes.

The aporia that Aristotle is addressing here might be seen as a version of B#3, "is there one or are there many sciences of all the [kinds of] οὐσίαι? if there is not just one, what kind of οὐσία should we say that this science is about?" (997a15-17). In Iβ2b I noted that there is some ambiguity in this aporia, and in the connected B#4, asking whether this science is only about οὐσίαι or also about their συμβεβηκότα: "an οὐσία" here is some kind of domain of being, but it is unclear whether the different οὐσίαι are the different categories (whose συμβεβηκότα might be unity and plurality and the like), or whether the different οὐσίαι are different genera within the category of substance (and their συμβεβηκότα are in the nine categories of accidents). I argued in Iβ2b that B#3-4 do not introduce the theory of categories and so leave this issue indeterminate, but that Γ1-2 bring the theory of categories to bear on the aporiai. If we take the different οὐσίαι of B#3-4 to be the different categories, then Γ1-2 say that there is a single science of all of them and also of the per se attributes of being, because being is said πρὸς ἕν, so that accidents exist derivatively from substances, and so in studying the causes of substances we will also at the same time be studying the causes of all beings and of their common attributes; whereas, if we take the different οὐσίαι to be the different genera of substance, Γ2 1004a2-9 seems to answer that there will be different sciences of the different οὐσίαι, a first and subsequent philosophies, and that "philosophy" as what treats them all will be only generically one science. E1 does not worry about whether wisdom can treat all the categories, but we might take it as answering B#3, with "οὐσίαι" construed as "genera of substance," by saying that wisdom is about the first unmoved substances, and is therefore also about all kinds of substance:
this answer would contrast with Γ2's answer to the present question, how many sciences there are of different genera of substance, but would resemble Γ2's answer to how many sciences there are of things in different categories, but unlike. (But there is no suggestion, in Γ2 or E1 or elsewhere, that "οὐσία" is said anything but univocally of the different genera of substance: equivocity plays no role in generating the aporia, and πρὸς ἕν predication plays no role in solving it.)

However, there is an important difference between the aporia that Aristotle is answering here and the aporia he raised in B#3. As I noted in Iβ2, when Aristotle presents the aporiai continuously in B1, B#2 asks "does it belong to the science to consider only the ἀρχαί of οὐσία or also the ἀρχαί from which everyone demonstrates?" (995b6-8), and B#3 picks up the first half of the antithesis by asking "if it is about οὐσία, then is there one [science] of all [kinds of οὐσία] or are there several, and, if there are several, are they all of a kind, or are some of them to be called σοφίαι and the others something else?" (995b10-13). This seems to imply that B#3's question "what kind of οὐσία is wisdom about?" means "what kind of οὐσία does wisdom know the ἀρχαί of?". Aristotle is not answering this question by saying "wisdom is the science of eternally unmoved οὐσίαι", unless eternally unmoved οὐσίαι themselves have ἀρχαί and causes: Aristotle's Academic rivals believe this, but he does not, and he is not calling for an investigation of such ἀρχαί in E1.[33] Rather, he is saying that eternally unmoved οὐσίαι will themselves be ἀρχαί of all other οὐσίαι (and thus of non-οὐσίαι as well). For this reason it is better to take E1 as addressing B#5, in something like the K version (cited above), where it is a "methodological" aporia, asking what objects wisdom will be about, natural things or mathematicals or Forms: here the question "what οὐσίαι will the science we are seeking be about?" means "what kind of οὐσίαι will the ἀρχαί themselves be?", and E1 is proposing programmatically that they will be neither natural or mathematical things, nor Forms, but some other kind of eternally unmoved οὐσία. However, to the question "what kind of οὐσία does wisdom know the ἀρχαί of?", the answer is that the desired ἀρχαί will be ἀρχαί of all οὐσίαι,

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[33]there is a weak sense in which the mover of the daily motion is the ἀρχή of, i.e. is prior to, the movers of the other celestial motions, but it does not seem to be in any sense a cause of them, whether material or formal or efficient or final, despite attempts that have been made (e.g. by Fârâbî and Avicenna and Thomas) to make it an efficient cause; see discussion in Part III. anyway Aristotle is certainly not suggesting any such relation in E1

both moved and unmoved, or rather that they ἀρχαί will <u>be</u> unmoved οὐσίαι and will be ἀρχαί <u>of</u> moved οὐσίαι. The suggestion of Γ2 1004a2-9, that philosophy immediately divides according to the genera of οὐσία, that each genus falls under its own science and no two under the same science, would be correct if the ἀρχαί of each genus fell within that same genus, and so no two genera could share ἀρχαί (except that they might have ἀρχαί which are <u>analogically</u> the same, which might be treated by a universal philosophy without its own distinctive domain, as theorems of proportion theory which hold analogically of discrete and continuous quantity can be treated by a universal mathematics without its own distinctive domain). This is what Speusippus thought, and he was right against Plato that formal and material causes cannot cross domains, especially not between moved and unmoved οὐσίαι, but Aristotle will argue in Λ (anticipated here with the talk of "causes to the manifest divine things") that efficient and final causes do cross domains, and give us a way up from natural things to the first unmoved ἀρχαί. As he will say in Λ1, "these οὐσίαι belong to physics (since they have motion), and this [sc. unmoved οὐσία, claimed by some philosophers] to a different [science], <u>if there is no common ἀρχή</u> to [both kinds of οὐσία]" (1069a36-b2): but since there is a common ἀρχή, or since an ἀρχή which <u>is</u> one kind of οὐσία can be an ἀρχή <u>of</u> the other kind of οὐσία, natural things, besides falling under physics, can also fall under first philosophy just to the extent that there is some causal chain leading up from them to an unmoved ἀρχή.[34] E2-4, and the subsequent books of the <u>Metaphysics</u>, will have to investigate whether there is such a causal chain and what it might be.

<center>On some objections to <u>Metaphysics</u> E</center>

   I have put off until now considering some objections to <u>Metaphysics</u> E or to its present place in the <u>Metaphysics</u>, because I think that these objections do not have much force once we have seen how E is supposed to work. A few scholars, following Natorp, continue to think either that E is spurious or else that crucial parts of E (some or all of E1 1026a23-32) are spurious interpolations.[35] They are motivated chiefly by objections either to E1's description of first philosophy as a science of separate immaterial substances, or, if they are willing to accept that, then to its identification of such a first philosophy with the science of being <u>quâ</u> being from Γ or (implicit in E1 1026a22-3) with the "wisdom," the most intrinsically valuable of the theoretical sciences, from A1-2. (Jaeger 1923 {ref} agrees with Natorp that the identification of θεολογική with the science of being <u>quâ</u> being is philosophically indefensible, but he nonetheless thinks that Aristotle himself made this identification in a hopeless attempt to paper over the differences between the conceptions of wisdom in ΑΒΓ and in ΖΗΘ.) However, there is nothing objectionable in what E1 says (namely that first philosophy is about separate unchanging οὐσίαι which are causes of being <u>quâ</u> being), and it would also do no good to get rid of E1, since Aristotle consistently maintains that "wisdom" (in ethical contexts) or "first philosophy" (in physical contexts) is about the most valuable and divine things, and since Γ1 and other texts say that wisdom, i.e. the science of the first ἀρχαί announced in A1-2, will be a science of (the causes or ἀρχαί of) all beings or of all οὐσίαι.[36]

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[34]see discussion of this sentence in IIIβ1; its interpretation has been disputed

[35]references: the original Natorp articles (should be cited in Iα1), Annick Stevens' book, also Leszl in <u>Aristotle's Conception of Ontology</u>, also Emmanuel Martineau, "De l'inauthenticité du livre E de la <u>Métaphysique</u> d'Aristote," <u>Conférence</u>, vol.5, automne 1997, pp. 445-509. note that Natorp (and some of the others?) held a double version: he thought both that E was spurious and that the crucial passages in E1 were interpolations anyway. one also sometimes hears that E (or E1) is a doublet of Γ1-2, but for reasons noted above this is wrong. E has no concern with the question whether a single science can treat beings in different categories; Γ has no concern with distinguishing the science we are seeking from sciences of changeable or inseparable things. [Jaeger 1912 pp.164-88 notes that E begins without a connecting particle, and says that it is independent of Γ and covers the same ground; this seems to contradict things he says elsewhere, or am I missing something?]

[36]see discussions above, starting in Iα. texts on wisdom or first philosophy as about the most valuable or divine kind of substance are collected in the appendix to Iα1, and see the discussion of Γ1-2 as answering B#3-4 in Iβ2b. also ZH say that their inquiry is about οὐσία, or about its causes and ἀρχαί (so H1), and Z11 1037a13-17 and Z17 1041a6-9 make it clear that that inquiry is first philosophy or a search for οὐσίαι separate from the sensible ones

A larger group of scholars accept the authenticity of E but deny that Aristotle intended it for the role it clearly plays in the Metaphysics as we now have it, as an introduction to the study of substance in ZH and of potentiality and actuality in Θ. For the most part, this objection is not really directed at E, but is a byproduct of Jaeger's view (upheld more recently by Frede-Patzig) that ZHΘ were not originally intended to be part of the Metaphysics (that is, of the projected treatise beginning with AB), but were inserted later in their present place. I will discuss (and explode) this view later in talking about ZH in Part II and about Θ in Part III. For now, it is enough to recall from Iα5 some of the main points at issue. Against Brandis and Bonitz, who thought that ABΓEZHΘ were the "main series" [Hauptreihe] of the Metaphysics, and that the other books were originally independent treatises, Jaeger in the Studien zur Entstehungsgeschichte der Metaphysik des Aristoteles of 1912 argued that ABΓE and also the "fragments" Iota and MN belonged to a "main lecture course" [Hauptvorlesung] united by a pursuit of wisdom as a science of suprasensible reality and also by the aporiai of B, and that ZHΘ are not part of this project, but pursue a conception of wisdom as a universal science of being. (We will see in Parts II and III that ZHΘ are pursuing the same conception of wisdom as the other books, and continue to be guided by the aporiai of B). Now if ZHΘ were originally written for another purpose, and were later inserted into the Metaphysics, this might have been done either by Peripatetic editors (as Jaeger thought in 1912) or by Aristotle himself (as Jaeger thought in his Aristoteles of 1923). If it was Aristotle himself who inserted ZHΘ into the Metaphysics, then there would be no need to deny that E was originally written for its present purpose as an introduction to ZHΘ within the ongoing argument of the Metaphysics: Aristotle could have written E as to bridge the transition from the earlier books of the Metaphysics to the newly inserted ZHΘ. On the other hand, if we think that post-Aristotelian editors inserted ZHΘ into the Metaphysics, then we must either credit them with writing E, or hold that Aristotle intended E as something other than an introduction to ZHΘ. The latter hopeless position, held by Jaeger in 1912 but recanted by him in 1923, is indeed maintained by Frede-Patzig in their introduction to Metaphysics Z (FP I,28). The main grounds they give for connecting E with ABΓ rather than with ZHΘ (namely, that E1 seems to build on the results of Γ1-2, and that K gives a parallel to BΓE in sequence) are perfectly acceptable, but they do nothing to break the link between E and ZHΘ unless we already believe that ZHΘ are not part of the same treatise with ABΓ.[37] But it is clear enough that E could never have existed except as an introduction to something like ZHΘ: E is too short to be an independent book,[38] and it states a program for examining causes of being in four senses, and then discusses and dismisses two of them, obviously as an introduction to a detailed examination of the other two. Jaeger in 1912 suggested that although E was meant to lead into a study of substance, that was a study of supersensible substance, not the study of sensible substance now linked to it in Z;[39] but this misses the point that E is introducing a study of the causes of being, to see whether they lead to supersensible substances, and this requires that we begin with sensible substances, as in Z.

None of this means that Aristotle wrote E before he wrote ZHΘ. It would not be surprising if he had written ZHΘ first and then gone back to write the introduction.[40] For now we must even leave

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[37]Frede-Patzig also maintain that there is a contradiction between Z (especially Z11) and E1, in that E1 maintains that natural things must be defined "like the snub," with an essential reference to matter in their definition, whereas Z11 allegedly maintains the opposite; but this depends on a perverse reading of Z11, which will be dealt with in its proper place

[38]at two and a half Bekker pages it is much the shortest book of the Metaphysics after α (a little under two pages); the only other book that's comparable is H, three and a half Bekker pages, and that should be seen as a continuation (or "completion," its own term at 1042a4) of Z {I can't immediately think of any other Aristotelian books this short, except the dubious Eudemian Ethics VIII and maybe Physics VII--I guess Topics III and VII are fairly short, but again they seem like overflows from II and VI; some of the Parva Naturalia are also very short, but it depends how you count them. also very short books in the Problemata, but the book-division here is a special case, see Burnyeat on this}. (I have an updated version of this note in the Burnyeat review)

[39]hard to give a page-reference; this is strewn over pp.101-13

[40]here it is worth thinking about the transmitted last sentence of E, a merely verbal variant on the first sentence of Z. this might simply be the phenomenon of "Kustoden"--where a scribe will add onto the end of a scroll the first few words of the next scroll, so you will know which one to fish out next; see Jaeger 1912 for discussion, Ross has a

open the possibility that when Aristotle first wrote ZHΘ he did not intend them as part of the treatise on wisdom beginning ABΓ, although when we examine ZHΘ in detail we will see that there is no reason at all to believe this. What matters for now is that Aristotle's final intention, and his intention when he wrote E, was that E should be both a continuation of AB's search for a wisdom superior to physics, mathematics and dialectic (and a step in the execution of Γ's program of a science of being <u>quâ</u> being) and also an introduction to ZHΘ: in other words, that at least ABΓEZHΘ should be part of a connected treatise pursuing wisdom.[41] The role of Δ remains to be seen.

Iγ1b: The aims of <u>Metaphysics</u> Δ

As I have said above, my main concern will be with Δ7, on the meanings of being, since this plays a decisive role in structuring the subsequent argument of the <u>Metaphysics</u>; I will return to discuss a number of other chapters of Δ when and as they are used in later books of the <u>Metaphysics</u>. However, it will be helpful to set Δ7 in its context by saying something about the aims of Δ as a whole and about the methods that Aristotle applies in a typical chapter; and the consideration of Δ as a whole is particularly important because, although everyone seems to agree that Δ is authentic, it has been an extremely widespread view since Brandis and Bonitz that Δ was originally an independent treatise and was not intended as part of the <u>Metaphysics</u>.[42]

There are few positive arguments that Δ is not an original part of the <u>Metaphysics</u>, and it is generally very easy to answer them.[43] The real problem is rather that, to many readers, Δ simply

summary in his preface to the <u>Metaphysics</u>: this occurs in at least some manuscripts of the <u>Metaphysics</u> at several book-junctures, and at least sometimes occurs elsewhere (<u>Politics</u> III is linked to <u>Politics</u> VII in this way). however, here the repetition is not verbatim, and that raises questions; Jaeger 1912 says that this represents an intervention by early Peripatetic editors to link E with Z by suggesting a plausible transition of thought, more interventionist than a mere scribal Kustode, and that later editors would not have dared to tamper with Aristotle's text in this way. as of 1923, since he now thought Aristotle himself had linked E with Z, I suppose he must have given this up. (Jaeger in his 1957 OCT of 1957 says that it was added by an editor after Δ had been inserted, but he also says this about the beginning of Z). it is a curious textual situation though. perhaps, if Aristotle wrote E after ZHΘ as an introduction, he himself wrote these words to make a continuous transition to Z, intending to replace the original first sentence of Z, but the original first sentence wound up being transmitted as part of Z anyway. (you might say that the last sentence of E is just a <u>varia lectio</u> for the first sentence of Z, but that seems unlikely--"φανερὸν δ ᾽ ὅτι" would be quite unceremonious for the opening of a book). Marwan Rashed has some further examples and discussion of Kustoden in his article in Laks-Rashed on the <u>De Motu Animalium</u>.

[41]Jaeger 1923, ET pp.202-4, holds that E1 was part of an original <u>Metaphysics</u> continuous with ABΓ, and that Aristotle added E2-4 as a bridge-passage when he incorporated ZHΘ into the <u>Metaphysics</u> {bit of a complication, since a version of E2-4 are in K, which he thinks is pre-Z, but anyway they've been reworked to serve as a transition} (Jaeger also thinks that E1 1026a23-32, "universal by being first" and so on, were added at the same time, to connect the "theological" ABΓE1 with the "ontological" ZHΘ, pp.215-19, but this is hopeless). this would do no harm if true. but again, E1 is programmatic, and programmatic for a study of the causes of being, not for a study of supersensible substances ungrounded in their manifest effects; it must always have been intended to lead into something rather like ZHΘ. Jaeger's only real argument that E did not precede Z at the time Z was first written (apart from the alleged contradiction between their conceptions of wisdom) is that, if E2 had preceded, then the opening of Z, "τὸ ὂν λέγεται πολλαχῶς, καθάπερ διειλόμεθα πρότερον ἐν τοῖς περὶ τοῦ ποσαχῶς" (1028a10-11), would have "referred his readers to the full and detailed discussion of the meanings of 'being' there given [i.e. in E2--rather than to Δ7 as now], or he would not have enumerated these meanings at all, because every one would have them in mind" (p.203). this is the purest nonsense; in fact the discussion in Δ7 (half a Bekker page) is much fuller than the treatment at the beginning of E2 (7 lines), a bare list without explanation, which is merely a summary of Δ7 and in fact refers back to it (being is said in many ways, one of which <u>was</u> being <u>per accidens</u>, E2 1026a33-4)

[42]this is usually taken for granted, rather than argued for. Reale argues against the common assumption in the chapter on Δ in his <u>Concept of First Philosophy and the Unity of the Metaphysics of Aristotle</u>; Kirwan in his Clarendon ΓΔE seems to be agnostic. note also McInerny in the Owens Festschrift (<u>Graceful Reason</u>, edited by Gerson) on Thomas on Δ, building on Reale

[43]{with this note now compare appendix to Princeton paper} while most people seem to think it has been established (by someone else) that Δ was not originally part of the <u>Metaphysics</u>, if you ask them who established this and where, you may be sent to Ross or Jaeger, but they will mostly send you back to Bonitz, who does not say much either. the only attempts at systematic argument I have found are Bonitz II,18-20, and then Jaeger 1912 pp.118-21, who however mostly refers to Bonitz; Ross has some very quick remarks at AM I,xxv. checklist of arguments, all of which will be

does not <u>look</u> like part of the <u>Metaphysics</u>, but like an independent work that has accidentally been transmitted in the middle of a larger treatise. To see how far this impression is justified, we have to see how far Δ functions in the ongoing argument of the <u>Metaphysics</u>: how far earlier books demand it, how far later books use it, and how far its own internal structure and argument (so far as it has any) are determined by its function within the <u>Metaphysics</u>. External evidence does have some relevance. As is often noted, two of the ancient catalogues of Aristotle's works list a one-book treatise Περὶ τῶν ποσαχῶς λεγομένων ἢ [τῶν] κατὰ πρόσθεσιν;[44] since Aristotle in the <u>Metaphysics</u> cites what seems to be Δ as ἐν τοῖς περὶ τοῦ ποσαχῶς (Z1 1028a10-11, Iota 1 1052a15-16), this work is probably Δ.[45] But that shows only that Δ was sometimes transmitted by itself, which is interesting but hardly surprising given its content; these catalogues also list amidst the works on dialectic a Περὶ τοῦ αἱρετοῦ καὶ τοῦ συμβεβηκότος which is presumably <u>Topics</u> II-III (or just III)[46] and a Περὶ τοῦ μὴ γεννᾶν which is certainly <u>Historia Animalium</u> X,[47] and nobody takes this as evidence that Aristotle did not intend these texts as part of the larger collections.[48] It has also been pointed out since Bonitz that <u>Metaphysics</u> K contains shorter parallels to ΒΓΕ in sequence, without a parallel to Δ. But this too, on reflection, is not surprising, and helps to bring out a deeper point about the special status of Δ. Although Jaeger speaks of Δ as a separate Vorlesung distinct from the Hauptvorlesung of the <u>Metaphysics</u> {ref}, it is obvious that Δ could never have been a Vorlesung at all: it is, rather, a reference text, presumably made available in writing for the use of the school, like the <u>Selection of Contraries</u> (referred to at Γ2 1004a2 and at Iota 3 1054a30, where it is specified as <u>written</u>, or perhaps as <u>drawn</u>) or the <u>Historia Animalium</u> (one is advised to look at the written histories at GA II,7 746a15 and III,2 753b17). This special status of Δ as a reference text would make it natural for someone to copy it separately. But the <u>Metaphysics</u>, like other Aristotelian treatises, is intended as a written text too and not <u>only</u> as a lecture-course (see Iα5 on oral and written versions), and none of this shows that Aristotle did not intend Δ as part of the <u>Metaphysics</u>. The more interesting question is whether Δ was written specifically for metaphysical use (and, if so, where in the logical order of the metaphysical project it belongs), or whether it is a

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answered below: from Jaeger (i) interrupting "without motivation" the series of aporiai [this is based on a mistaken allocation of aporiai between Γ and E]; (ii) the omission of Δ from the K parallel [easy to answer as below]; (iii) independent transmission; (iv) ἐν ἑτέροις and the like [this is the only argument that needs more than a two-line answer; raise question of identity-conditions for "same work," and note the references at the beginnings of Z and Iota, note Burnyeat thinks he can handle these; also H3 1043b16 refers to Z8 as ἐν ἄλλοις, although Burnyeat and FP will just take that as evidence that Z7-9 are a later insertion; also the SE 165b6/10 refs to the <u>Topics</u>, what else?]. from Bonitz (i) "eiusmodi … descriptio, quoniam nec pertinet ad ipsam quaestionem, nec quae sit propria et primaria vocabulorum singulorum notio decernit, praemitti debet disputationi, non interponi"; (ii) against Alexander, Γ2 1004a28-31 isn't promising Δ, which is merely distinguishing words and not talking about the notiones/Begriffe themselves; (iii) the K parallel; (iv) some useless terms and some odd omissions; (v) no definite rule either of selection or of order of terms, less subtle treatment than <u>Physics</u> or <u>Metaphysics</u>. all Ross adds are (i) "not preliminary to <u>Metaphysics</u> in particular" and "some of the notions discussed in it (κολοβόν, ψεῦδος) are not appropriate to the <u>Metaphysics</u>", (ii) claim that works outside the <u>Metaphysics</u> also refer to Δ.

[44]Diogenes Laertius #36 (p.43 Düring) = Vita Hesychii (seu Menagiana) #37 (p.84 Düring; accepting, with Düring, some obviously necessary textual changes)

[45]as Jaeger 1912 (p.118ff) points out, περὶ τῶν ποσαχῶς λεγομένων comes from a conflation of περὶ τῶν πολλαχῶς λεγομένων with περὶ τοῦ ποσαχῶς (i.e. on the question "in how many ways are these things said?"). I am a bit uneasy about κατὰ πρόσθεσιν in a title for Δ: that ought to mean that a given term has one meaning by itself, another when some qualification is added, and not much in Δ seems to correspond to this description (perhaps the discussion of "perfect thief" and "good thief" in Δ16); Jaeger suggests (ibid.) that this would apply to e.g. ὄν with an added qualifier such as ὡς ἀληθές, δυνάμει, ἐνεργείᾳ; I would doubt that except in the case of a diminishing qualifier like δυνάμει, or ἔστι μὴ λευκόν or μὴ ὄν.

[46]DL #58, p.44 Düring; Περὶ αἱρετοῦ καὶ συμβαίνοντος <u>Vita Hesychii seu Menagiana</u> #56 p.84 Düring (other dialectical-topics works are cited in the vicinity)

[47]DL #107, p.47 Düring, <u>Vita Hesychii seu Menagiana</u> #90 p.85 Düring (an <u>On Animals</u> in nine books, rather than the expected ten, is cited shortly before)

[48]cross-reference to Iα5 on "titles" referring to smaller and larger units (I gave there the example of ἐν τοῖς περὶ τῆς μίξεως), perhaps add these examples there. also what I say at the end of Iγ1b about ἐν ἄλλοις is closely related to this discussion in Iα5, and should perhaps be moved there

general philosophical resource (a philosophical lexicon?) with no special relation to metaphysics. Bonitz and Ross think the latter, but they are wrong.[49]

To begin with, Δ includes no ethical terms whatever.[50] It also includes no physical terms except "nature" itself (Δ4) and, if you like, δύναμις (Δ12); the treatment of "cause" (Δ2), even though it is also found in Physics II,3, is perfectly general, with nothing specific to physical applications; the treatment of "necessary" (Δ5) is not only not specifically physical, but builds up to a discussion of the mode of necessity of "eternal and unmoved things" (1015b14-15). There is no treatment even of "motion," let alone "place," "void/empty," "mixture," or any of the other physical things that are said in many ways. Our only choices are to call it metaphysical or dialectical. Δ does have much in common with the Categories, which belongs to dialectic and (as I have argued elsewhere) is designed as a prerequisite for the Topics.[51] Δ, like the Categories, describes the many modes of substance (Δ8), quantity (Δ13), quality (Δ14), and relation (Δ15), and also distinguishes the species of quality from Categories c8 (διάθεσις and ἕξις Δ19-20, πάθος Δ21, δύναμις and ἀδυναμία Δ12-- missing is "σχῆμα and μορφή"); again like the Categories, it describes the modes of opposition (Δ10, Categories 10-11), prior and posterior (Δ11, Categories 12), and ἔχειν (Δ23, Categories 15). But where the Categories avoids all causal considerations, Δ has chapters on ἀρχή, cause, στοιχεῖον, nature and "necessary" (Δ1-5), and it uses causal and especially hylomorphic analyses in its analyses of particular notions: thus Δ8, unlike the Categories, speaks about the formal cause as substance; καθ ̓ ὅ is said either of the form or of the matter (Δ18), and there are similar analyses of ἔκ τινος (Δ24) and γένος (Δ28). The explanation of all these differences is that the Categories is written as an aid to dialectic, and Δ to metaphysics. Ross, to support his claim that Δ "is not preliminary to [the Metaphysics] in particular" (AM I,xxv), says that Aristotle cites Δ in non-metaphysical works as well as in the Metaphysics, but this is seriously misleading: the only examples Ross can find (cf. AM I,xiv) are GC II,10 336b29 (being is better than not being; "how many ways we say 'being' has been said elsewhere"), which could be referring to anything, and Physics I,8 191b27-9 (what-is comes-to-be per accidens but not per se from what-is-not, and per accidens but not per se from what-is; "this is one way [to solve the aporia about coming-to-be], and another is that the same things can be said in potentiality and in actuality: this has been determined more precisely elsewhere"), which fits much better with Λ2 or with Θ6-7 than with Δ7. The truth is rather, as Joseph Owens notes in passing in a footnote, that Δ is cited only in the Metaphysics (Doctrine of Being p.86 n17), indeed only in E and the following books, and that it is cited often and in structurally important places in those books: above all in the demarcation of the four paths of the study of causes of being, at various points where a distinction from Δ is needed to resolve some aporia from B, and with especially frequency in Iota.

There are, however, different degrees of "citation." I will give in a footnote below a list of the places where the Metaphysics draws some distinction between two or more senses of a term X which are also distinguished in Δ (or in a few cases, flagged, where it distinguishes a term X from a term Y as they are distinguished in Δ): Aristotle marks many of these with the phrase "πολλαχῶς λέγεται" or slight variations, without necessarily saying that we have determined elsewhere in how many ways X is said. Many of these passages are, nonetheless, very close echoes of Δ. This is particularly striking with the most structurally important uses of Δ, the references to the fourfold distinction of senses of being: nothing like this is found outside the Metaphysics or before Δ, where distinctions of senses of being are always either distinguishing different categorial senses, or distinguishing actual from potential being, never distinguishing these two broad "senses" of being from each other or from being as truth or being per accidens. The most explicit references to Δ are in the dubious last sentence of E4 and the first sentence of Z1, 1028a4-6 and a10-11, referring back

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[49]references in Bonitz and Ross. note, to dispose of, (i) references to a ten-book Metaphysics (we have no idea which books were excluded, or whether two of our books were counted as one); (ii) the duplication between Δ2 and Physics II,3 (Aristotle used the same passage twice, as in M4-5 and A9, and why not?--contrast Asclepius, who thinks that the original Δ2 was lost and that editors copied in Physics II,3 in place of it)

[50]although it is often interested in evaluative (though not necessarily ethical) applications of the terms it does discuss

[51]on similarities and differences between Δ and the Categories, see my "Metaphysics, Dialectic and the Categories"

to Δ7's distinction of the senses of being (E4 ἐν οἷς διορισάμεθα περὶ τοῦ ποσαχῶς λέγεται ἕκαστον, Z1 διειλόμεθα πρότερον ἐν τοῖς περὶ τοῦ ποσαχῶς),[52] and in the first sentence of Iota 1, referring back to Δ6 on the senses of unity (ἐν τοῖς περὶ τοῦ ποσαχῶς διηρημένοις εἴρηται πρότερον, 1052a15-16). But other references, mainly in Θ and Iota, are also explicit in referring back to something earlier, although without the "title" "περὶ τοῦ ποσαχῶς". Thus Θ1 1046a4-6, "that δύναμις and δύνασθαι are said in many ways, we have determined elsewhere [ἐν ἄλλοις]" refers back to Δ12, and Θ8 1049b4 "it has been determined elsewhere [ἐν ἄλλοις] how many ways 'prior' is said" refers back to Δ11; Iota 3 1055a2 "it has been determined elsewhere [ἐν ἄλλοις] what things are the same or other in genus" refers back to Δ28 on genus, especially 1024b9-16;[53] Iota 4 1055b6-7 saying that privation is said in many ways "as we have distinguished elsewhere [ἐν ἄλλοις]" refers back to Δ22, and Iota 6 1056b34-1057a1 "we have distinguished elsewhere [ἐν ἄλλοις]" that relatives are said in two ways, as contraries and as knowledge to the thing known, is apparently referring back to Δ15, especially 1020b26-32, although the terminology is different and Iota 6 is lumping together the first two of Δ15's three senses.[54] When E2 1026a33-b2 says that being is said in many ways, one of which was [ἦν, 1026a34] being per accidens and so on, the imperfect tense may well refer back to Δ7, which is being closely followed. We will see in discussing Iota in Iγ2 below that Aristotle there argues systematically from conclusions of Δ, so much so that it seems clear that some things in Δ, notably Δ16 on τέλειον, were put there specifically to support the argument of Iota. Δ7 refers forward to a determination of when X is potentially Y, or when Y potentially exists [πότε δὲ δυνατὸν καὶ πότε οὔπω, ἐν ἄλλοις διοριστέον, 1017b8-9], a task taken up in Θ7 and flagged in the first line of that chapter [πότε δὲ δυνάμει ἔστιν ἕκαστον καὶ πότε οὔ, διοριστέον, 1048b37].[55]

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[52]see discussions in Iγ1a of the textual situation here and of Jaeger's suggestions

[53]so Ross; Jaeger, following Bonitz, says Δ9 1018a4-11, but that talks only about sameness and otherness in species, not in genus--see below for positive justification for Ross' reference

[54]but I wonder whether something is wrong with the Iota 6 text: should ἐπιστήμη and ἐπιστητόν be exchanged? cp. Δ15 1021a26-30. but see Ross ad locum for a defence of the transmitted text (d figure out what Bonitz is saying)

[55]The Metaphysics draws some distinction which is also drawn in Δ, with various degrees of "reference" to Δ, at:

Δ3 στοιχεῖον Z17 1041b27-33, Λ4 1070b22-7, both drawing, to very different effects, on Δ's distinction between στοιχεῖον and ἀρχή (a στοιχεῖον must be ἐνυπάρχον whereas an ἀρχή need not). ΑΒΓ deliberately fail to draw this distinction.

Δ4 φύσις Z7 esp. 1032a22-3

Δ5 ἀναγκαῖον E2 1026b27-9, Λ7 1072b11-13

Δ6 ἕν Iota 1-2, reference to περὶ τοῦ ποσαχῶς at Iota 1 1052a15-16 [+ H2 on causes of unity (gluing etc.)]

Δ7 ὄν E2, E4, Z1, Θ1, Θ10, N2

Δ8 οὐσία Z2, Z3

Δ9 on sameness Z6 1031a19-28 (cp. Δ9 1017b27-33 on sameness per accidens), Iota 3; on διάφορα Iota 3-4, also "other" and "unlike" 1054b14

Δ10 ἀντικείμενα Iota 4 1055a17

Δ10 ἕτερον εἴδει Iota 8 {flagged by the γὰρ at 1058a17; Bonitz-Ross-Jaeger wrongly print A^b's ἄρα}

Δ10 ἐναντία Iota 1055a17-18, esp. a35-8, very closely echoing Δ10 1018a31-5

Δ11 priority Z1 (πρῶτον is said in many ways), Θ8

Δ12 δύναμις Θ1

Δ15 πρός τι Iota 6, back-reference ἐν ἄλλοις at 1056b34-1057a1

Δ16 τέλειον Iota 4 1055a10-16, not exactly drawing on a distinction among senses of τέλειον but clearly citing the formulae of Δ16 1021b12-13 and b23-5. Then Iota 4 1055a17ff says that different senses of τελείως follow on different senses of ἐναντία: for the different senses of ἐναντία see 1055a35-8, echoing Δ10 1018a31-5, and the corresponding senses of τέλειον would be those given Δ16 1022a1-3.

Δ18 καθ᾽ αὑτό Z4 1029b16-18, contrasting the way white belongs to surface καθ᾽ αὑτό with the way something's essence belongs to it καθ᾽ αὑτό, as at Δ18 1022a25-31.

Δ22 στέρησις Iota 4, back-reference ἐν ἄλλοις at 1055b6-7; also Θ1 1046a31-5

Δ25 part Z10 1034b32-1035a9

Δ28 γένος: end of Iota 3 (dispute noted above) on same and other in genus, back-reference ἐν ἄλλοις at 1055a2, pointing back to Δ28 1024b9-16 (compare esp. Iota 3 1054b27-30 and Δ28 1024b9-13, on not having the same matter/ὑποκείμενον, not admitting mutual ἀνάλυσις/γένεσις, and not having the same σχῆμα κατηγορίας). Also Iota 8 1058a23-5 may be relying on Δ28 esp. 1024b8-9 for the genus as matter (note the contrast with the Heraclids in Iota 8,

   For all of these reasons there is no real alternative to taking Δ, as we find it, as part of the Metaphysics. And by noting connections between Δ and the other books, we can help to clarify how Δ functions in the larger argument of the Metaphysics. If we understand its function, we can hope to make better sense of its internal structure and content, and can in passing give some answer to some of the other objections that Bonitz and others have raised against Δ. Bonitz complains that there is no "definite rule" guiding either the selection or the order of the terms Aristotle chooses to treat, that he includes some terms that are useless for metaphysics and leaves out others that would have been very useful, and also that "the explanation of individual terms is far inferior in subtlety of argument both to the Physics and to the Metaphysics" (II,20). I certainly do not claim that Δ could not have been improved: undoubtedly, like the rest of the Metaphysics, it was a work in progress, a "looseleaf notebook" with articles on different terms added at different times, and what is preserved is an arbitrary time-slice.[56] But Aristotle wrote it for a reason, and it plays an important part in the Metaphysics. And he is not (as Bonitz suggests) just "empirically" assembling lists of ways that some common terms are used in ordinary language or in the disciplines. Everything that Aristotle says in Δ has a philosophical point, and the point can often be brought out by reading Δ in the larger context of the Metaphysics.

   To begin with, we can see what is wrong with the option (which Bonitz suggests and then dismisses, II,19-20), of reading Δ not between Γ and E but as a prolegomenon to the whole Metaphysics. As we have noted, Δ is not used in AαBΓ but only in E and subsequent books. One major function of Δ in those books will be to resolve aporiai from B by giving some conceptual clarification or distinction in a key term (e.g. Z10's solution of B#6 turns on taking from Δ25 a distinction between two senses of "part"): not only would Δ be under-motivated before B, but much in B would seem pointless or naive if Δ had preceded. B thus helps to motivate Δ, and so does Γ, both generally by raising issues which Δ helps to clarify, and specifically by stating the need for something like Δ, and indeed for several individual chapters of Δ.[57]

   Most obviously, since Γ1 announces a study of the ἀρχαί, causes and στοιχεῖα of being quâ being and of its per se attributes (unity, plurality, etc.), and since "cause" and "being" and "one" and so on are each said in many ways, we will need to distinguish the different causal paths that we might pursue in order to reach the ἀρχαί (part of what was wrong with earlier attempts is precisely that they did not draw such distinctions clearly enough); and so we will need something like Δ to distinguish the different senses of "cause," of "being," and of each of the per se attributes of being. And indeed, Δ1-3 treat sequentially of ἀρχή, cause, and στοιχεῖον; Δ7 discusses the senses of being; Δ6 discusses "one" and also "many," and Δ9-10 discuss "same," "other," "different," "similar," "dissimilar," "opposite" and "contrary," all surely among the per se attributes of being.[58] These are among the most important chapters of Δ as regards the use of Δ in later books of the Metaphysics: numerically, the most frequent classes of uses of Δ are the explicit or implicit references to Δ7 at the beginning of the investigation of each new sense of being, and the explicit or implicit references to Δ in Iota, which goes systematically through the per se attributes of being from Δ6 and Δ9-10, and in the process also calls on Δ's accounts of relation, "complete" [τέλειον], privation, and genus.

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with the Hellenes and Ionians in Δ28, as γένη derived from the efficient rather than material cause).
   Δ29 false maybe E4/Θ10
   Δ30 accident maybe E2-3
[56]note the difference between "article" and chapter, and some arbitrariness in the chapter-division of Δ. the editors generally begin a new chapter when a new term is introduced without a connective δέ to link it with the previous term, but this is not applied consistently, as noted below Δ19-20 and Δ26-7 should each be a single chapter. there is, unsurprisingly, some manuscript divergence about these δέ's: Δ2 and Δ4 each begin with a δέ in some manuscripts
[57]note, as in appendix to Princeton paper, against Jaeger's argument that Δ interrupts, without reason, what would otherwise be the connected resolution of the first four aporiai in ΓE. E is better treated as addressing B#5 rather than B#3, and that aporia cannot be resolved--as it is in EZHΘΛ--without the distinctions made in Δ.
[58]note lists from B and Γ of such attributes, or things we will need to discuss further: B1 995b20-22, Γ2 1003b33-1004a2, 1004a10-20, 1005a11-17. some overlap here with the first two paragraphs of Iγ1a?

   Thus Γ's program of finding the ἀρχαί as causes of X, where X is being or something coextensive with it, requires a study of the different senses of X, and Δ carries out this task. But two qualifications are needed. First, Δ does not always distinguish the senses of X in order to help in looking for the causes of X. Obviously, this is not the reason when X is "cause" itself (Δ2). Again, we need to distinguish the senses of "prior" and "posterior" (Δ11), not because we are looking for causes of priority and posteriority, but because to be an ἀρχή is to be prior to everything else, and so to test whether something is an ἀρχή we need a determinate sense of priority. Also, if X is an attribute of being such as "one" or "other" or "contrary," the issue about the ἀρχαί is not simply about the causes of X, but about whether there is a separate first X existing παρὰ τὰ πράγματα--e.g. a One-itself as in the Parmenides, Forms of Sameness and Otherness as in the Sophist or an underlying nature of the others as in the Parmenides,[59] or a first contrariety, perhaps between the great and the small or between the equal and the unequal. (This will still be connected with causality, if the separate X is the cause to the other X's of their being X). Thus Iota does not say much explicitly about causality, but is very concerned with whether the one exists καθ᾽ αὑτό or parasitically on some other underlying nature (B#11, taken up in Iota 2), and with whether there is a contrariety παρὰ τὰ γένη or whether every contrariety is genus-bound. As we will see in Iγ2,[60] the treatment of "other," "different" and "opposite" in Δ9-10 serves largely as a means to the treatment of contraries in Δ10, and this is because it is a first contrariety that has the most serious claim to be (a pair of) ἀρχαί, a claim that will be assessed in Iota on the basis of Δ. The second qualification is that Aristotle's treatment of X in Δ may be intended, not just to distinguish different meanings of X, but also (or instead) to distinguish the meaning of X from the meaning of Y: here X and Y might be two coordinate species of something, or (as often) X might be a more specific notion which risks being confused with the more general notion Y. This is the case with the more general "other" and the more specific "different" in Δ9 (being other just means existing and not being the same; two things differ only if they are the same in genus), and while Δ10 could be read just as distinguishing the senses of "opposite," its main concern is to distinguish the more specific "contraries" from other kinds of opposites. So too, at greater length, Δ3's account of στοιχεῖον is not mainly intended to distinguish different senses of στοιχεῖον (in fact, the emphasis falls rather on the claim that all the things that have been called στοιχεῖα fall under a single formula, "it is common to them all that a στοιχεῖον of each thing is the first ἐνυπάρχον in each thing," 1014b14-15): the point is rather to distinguish the more specific notion of στοιχεῖον from the more general notion of ἀρχή in its broadest sense, since, as Δ1 says, "it is common to all ἀρχαί to be the first thing whence [a given thing] either is or comes-to-be or is known; some of these are ἐνυπάρχουσαι and some are external" (1013a17-20). The function of Δ3, together with Δ1, is to allow Aristotle in later books of the Metaphysics to assume a precise concept of στοιχεῖα as ἐνυπάρχουσαι ἀρχαί, so that he can solve aporiai by distinguishing "στοιχεῖον" from "ἀρχή" or "cause" (as he does in Z17 and in another way in Λ4), and so that he can accuse his opponents of creating the difficulty by "making every ἀρχή a στοιχεῖον" (N4 1092a6-7, said of the Academics, and cp. H3 1043b10-14); by contrast, Metaphysics ΑΒΓ had used "ἀρχή" and "στοιχεῖον" as if they were equivalent.[61] Similar things can be said about Δ9's treatment of "other" and "different," and about other contrasting pairs of terms in Δ.

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[59]the word is ἕτερον in the Sophist, ἄλλα in the relevant passage of Parmenides H3. Aristotle generally says ἕτερον, but seems to intend no distinction from ἄλλο--he interchanges them freely in what should be a technical discussion at Iota 3 1054b13-22, see discussion in Iγ2. (the usual grammar-book thing to say is that "ἕτερον" means the other of two, "ἄλλο" another out of more than two; but this is almost unfalsifiable, since whenever X is an F, and Y is ἕτερον F, you can always say that it's being considered as part of a pair X and Y without regard to the other F's. note Physics III,6 206a27-9 switching from ἄλλο καὶ ἄλλο to ἕτερον καὶ ἕτερον in the same sentence, with no apparent change of meaning) English translations often say "Different" for ἕτερον in the Sophist, but given Aristotle's technical distinction between ἕτερον and διάφορον, this should be avoided {d check whether I've been consistent--probably not}. Aristotle On the Philosophy of Archytas Fr.2 Ross says that Pythagoras called matter "ἄλλο"

[60]check that this promise is fulfilled

[61]this is not quite true. A9 had pointed to the impossibility of common στοιχεῖα of beings in different categories, while Γ1-2 had said that beings in different categories have the same ἀρχαί; Γ1 carefully describes earlier philosophers as looking for the στοιχεῖα of beings, while we ourselves are said to be looking for their ἀρχαί and causes. but this just

   We have thus seen some ways in which the program of Γ, and the larger program of solving the aporiai of B, implicitly call for something like Δ; and Δ is in fact used by later books of the Metaphysics to further these programs. But Γ also seems to have an explicit reference ahead to Δ: "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 [ἔχειν] it, others through making/doing [ποιεῖν] it, and others through other such figures [τρόποι]" (Γ2 1004a28-31, cited in Iβ2b above). Here Aristotle says that we must carry out this investigation for X = "one," "same," "other," and "contrary" (1004a25-8); a similar passage at the end of Γ2 (1005a2-18) gives a fuller list of terms to investigate, "contrary or perfect/complete [τέλειον] or one or being or same or other" (1005a12) and "prior and posterior, genus and species, whole and part and others of this kind" (1005a16-18).[62] This seems to be referring ahead, not only to Δ6-10 as usual, but also to Δ11 (prior and posterior), Δ16 (τέλειον), Δ25-6 (whole and part), and Δ28 (genus), and these are clearly not meant as exhaustive. And indeed at least some of these chapters of Δ do seem to systematically carry out the program indicated, finding a first X and showing how other X's are related to this first X by ἔχειν, ποιεῖν, and so on. Thus "most things are called one through doing/making or having or suffering [ποιεῖν, ἔχειν, πάσχειν] something other [than themselves] or through being one πρός τι, but the things that are primarily called one are those whose οὐσία is one, one either by continuity or in species or in λόγος" (Δ6 1016b6-9); after describing some things that are called contraries, "the other things are called contraries through having these, or through being receptive of these, or through being such as to do or suffer [ποιητικά, παθητικά] these, or through [actually] doing or suffering these, or through being losses or acquisitions or possessions or privations of these" (Δ10 1018a31-5); after describing some things that are called perfect/complete [τέλειον], "the other things are called [perfect/complete] according to these, through either doing or having [ποιεῖν, ἔχειν] one of these, or fitting with one of these, or being said somehow or other in relation to the things that are primarily called perfect/complete" (Δ16 1022a1-3).[63]

means that Aristotle himself knows that "ἀρχή" and "στοιχεῖον" will not wind up being equivalent: he has not warned the reader about this, and certainly has not done the work even to decree, let alone to justify, a clear conceptual distinction between them. this is what Δ is for

[62]cite the whole passage. here's some of it: various things must be treated by the science which also treats being, esp. the pairs of contraries which can be traced back to unity and plurality; each of these applies universally, and even if it is not said in only one way, it can nonetheless be traced back to a primary sense, and falls under a single science (1005a2-11). "For this reason it does not belong to the geometer to consider what is the contrary or the perfect/complete [τέλειον] or one or being or same or other, except ex hypothesi. So it is clear that it belongs to one science to consider being quâ being and its attributes [ὑπάρχοντα] quâ being, and that it considers not only οὐσίαι but also attributes, both the aforesaid and prior and posterior, genus and species, whole and part and others of this kind" (1005a11-18). It is implied that each of these is said in many ways and that these ways must be distinguished and connected in order to make each of these metaphysically tractable. also NB note that the way Aristotle uses the language of οὐσίαι and ὑπάρχοντα here implies that he is interpreting B#4 in such a way that "οὐσίαι" means beings in any category, and ὑπάρχοντα/συμβεβηκότα are not accidents as opposed to the first category, but what the scholastics will call transcendental attributes of being. NB incorporate in your discussion of the two possible intepretations of B#3-4. note in particular the verbal closeness of this passage to the statement of B#4 in B1 995b18-27, which gives a list similar to Γ2 1005a11-18 (however, the version of B#3 immediately above in B1 supports the directly opposite interpretation of the aporiai, and is picked up by Γ on first and second wisdoms; it's a puzzle)

[63]similarly, but with an added complication, at the end of Δ12 (the chapter on δύναμις, ἀδυναμία, δυνατόν and ἀδύνατον): "these δυνατά are not [so called] according to a δύναμις; the [δυνατά] that are said according to a δύναμις are all said in relation to the one first {retaining μίαν} [kind of δύναμις], which is, an ἀρχή of change in another or [in the thing itself] quâ another. For the other things are called δυνατά through something else having this kind of δύναμις of them, or through [something else] not having [such a δύναμις], or through [something else] having [such a δύναμις] in this particular way. Likewise for ἀδύνατα. So the principal definition of the primary δύναμις would be: ἀρχή of change in another or [in the thing itself] quâ another" (1019b34-1020a6; lots of small textual difficulties: b34 τὰ δυνατὰ EJ Ross, δυνατὰ A^b Jaeger; at a1 Ross brackets μίαν claiming support from the commentators, Jaeger keeps the text; at a2 and again a6 ἢ ἦ the manuscripts generally have only one η but the restoration is clearly right) {note the standardized use of τοιοῦτον (which my translations have obscured), common to the Δ10, Δ12 and Δ16 passages (not Δ6) {sometimes there are MSS variations, typically A^b having τουτ- where EJ have τοιουτ-}}. this is complicated by

Alexander of Aphrodisias apparently took Γ2 1004a28-31 as stating the program to be executed in Δ,[64] but this interpretation seems to be rejected by most recent scholars; both Bonitz and Jaeger, in arguing that Δ was not intended by Aristotle as part of the Metaphysics, deny that this passage has any connection with Δ, except perhaps inasmuch as it may have inspired some later Peripatetic to insert Δ in its present place. Thus Jaeger says that Γ2 1004a28-31 "contains nothing but a general methodological maxim" and not an announcement of Δ (Entstehungsgeschichte p.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. But Jaeger is able to make this sound plausible only by leaving out of his citation the last clause of Γ2 1004a28-31, "some things will be called [X] through having [ἔχειν] [this first X], others through making/doing [ποιεῖν] it, and others through other such τρόποι": for if Aristotle has a "general methodological maxim" to cite these relations of ἔχειν and ποιεῖν and so on, he observes it only in Δ (and at Iota 4 1055a35-8, which recapitulates Δ10 1018a31-5 almost verbatim). While Jaeger suggests that Γ2 1004a28-31 gives a general maxim that Aristotle follows not only in Δ but also elsewhere, Bonitz implies on the contrary that Δ does not follow the maxim given here. because Δ is concerned only with terms, and does not "determine what is the proper and primary concept of each of the terms" (II,19): Aristotle here "justifies why discussion of unity, otherness, contrariety and other such concepts, although they are said in many ways, nonetheless belongs to the knowledge of being; but he is far from saying that [we] must first enumerate the various uses of terms--which is what he does in this book [Δ]--and [only] then discuss the concepts themselves, what they mean [or amount to] and how they are related to each other" (II,19-20). But Bonitz is not being fair to Δ in saying that it does not "determine what is the proper and primary concept of each of the terms." It partly depends on which chapters of Δ we are talking about, but certainly the passages we have seen from Δ6, Δ10 and Δ16, distinguishing primary from non-primary X's and describing the ways in which non-primary X's are called X, through ἔχειν, ποιεῖν, or standing in some other such relation to the primary X's, are ostentatiously claiming to have fulfilled the program put forth in Γ2 1004a28-31. But in order to assess all of Bonitz' objections against Δ,[65] we need a closer examination is needed, both of Δ's methods in treating each individual term, and of its reasons (or lack of reasons) for treating the terms it does, and in the order it does.

Δ's methods in individual chapters

Bonitz suggests that Aristotle is, without any philosophical agenda of his own, empirically collecting lists of the different ways that these terms are being used, in ordinary language or in different technical contexts, presumably as a way of warning his readers (or himself) against taking a word in one sense where a writer means it in another. It is certainly true that Aristotle often begins with an ordinary-language sense of the term (or with a sense that can be argued to be implicit in the ordinary-language use), and that he then considers uses in different technical

the fact that here the many senses of δυνατόν are said through different relations to a first sense of δύναμις, but Aristotle is passing freely back and forth between senses of δύναμις and senses of δυνατόν = possessors of δυνάμεις in these senses; what he says here is equivalent to reducing the many senses of δυνατόν (or rather, those that are said according to δυνάμεις) to a single first sense of δυνατόν, or to reducing the many senses of δύναμις to a single first sense of δύναμις.

[64]344,20-24, interpreting with Bonitz. Alexander says that Aristotle says this ἐν τῷ δευτέρῳ, by which he means B; but there is nothing much like this in B, and Alexander's "διελόμενον ποσαχῶς ἕκαστος αὐτῶν λέγεται" is an almost verbatim reproduction of the present passage's "διελόμενον ποσαχῶς λέγεται ἕκαστος". the only thing that seems at all like this in B is B1 995b20-25, asking whether the present discipline will investigate "same and other and like and unlike and contrariety and prior and posterior, and all other such things which the dialecticians investigate, investigating on the basis of plausible premises alone," but this says nothing about investigating in how many ways these things are said. the context in Alexander shows that "ἐν τῷ δευτέρῳ" is not a slip of the pen or a copyist's mistake for "ἐν τῷ τρίτῳ"; but Alexander seems to have simply misremembered the passage from Γ2 as coming from B, perhaps through confusing it with the B1 passage. Alexander's comments on these passages in their proper places do not seem to shed any further light

[65]listed above

contexts, often showing how they have arisen as extensions of the ordinary-language use. But these observations are not random, and they may all be aiming to "determine what is the proper and primary concept of each of the terms." Thus Δ3 is a sustained and highly tendentious argument for a single philosophical thesis, that, despite the wide variety of things that grammarians and geometers and physicists and dialecticians have called στοιχεῖα, "it is common to them all that a στοιχεῖον of each thing is the first ἐνυπάρχον in each thing" (1014b14-15). We can say that Aristotle is "collecting" uses of "στοιχεῖον", but in a Platonic sense of "collecting": he is trying to find a single concept and to show that the different examples of (real or alleged) στοιχεῖα that can be brought forth will all fall under it. And that attempt to bring the many instances under a single concept is motivated not by disinterested love of tidiness, but by the positive and also the polemical aims of the Metaphysics, which require Aristotle to distinguish sharply between the generic concept of ἀρχή-in-the-broadest-sense and the specific concept of στοιχεῖον (in Z17 and Λ4, noted above), and to accuse his opponents of having confused the two concepts or of having wrongly made every ἀρχή a στοιχεῖον (in N4 and H3, cited above). (It is indeed likely, not that an Academic or Democritean would utter the sentence "all ἀρχαί are στοιχεῖα", but that he would call all of the ἀρχαί he recognizes στοιχεῖα, or that, treating "στοιχεῖον" as still metaphorical from the letters of the alphabet, he would say "the ἀρχαί are as-it-were the στοιχεῖα in which the syllables of beings are written." But Aristotle can show that this is a mistake only if he can show, as he argues in Δ3, that the concept of στοιχεῖον in every context involves being an ἐνυπάρχουσα ἀρχή, and not merely being an ἀρχή.)

It may be said that Δ3 is anomalous within Δ, since Aristotle does not say that στοιχεῖον is said in many ways (λέγεται πολλαχῶς, or πολλοὺς τρόπους) but rather that a single definition applies to all στοιχεῖα--in other words, Δ3 is concerned only with the external distinctions between στοιχεῖα and ἀρχαί or causes, and not with internal distinctions within "στοιχεῖον". It is true that Δ3 is in some ways unusual. But I think it is wrong to distinguish too sharply between most other terms in Δ as πολλαχῶς λεγόμενα and στοιχεῖον as a μοναχῶς λεγόμενον.[66] Δ3 begins in the usual way, by saying "this-and-that are called στοιχεῖα, such-and-such are called στοιχεῖα, thus-and-so are called στοιχεῖα"; it ends by producing a formula that will apply to all of them, although surely not to all of them in the same way ("ἐνυπάρχον" will apply in different ways to water as a constituent in a natural body and to an elementary proof as a constituent in proofs of more complicated theorems). Other articles too, after collecting different things that are ordinarily or technically called X, will try by various strategies to reduce them to a smaller number of ways of being X or reasons for being called X. For instance, Δ1, although it says or implies that ἀρχή is said in many ways,[67] also says that "it is common to all ἀρχαί to be the first thing whence [a given thing] either is or comes-to-be or is known; some of these are ἐνυπάρχουσαι and some are external" (1013a17-20). Aristotle has started in this chapter with ordinary "ἀρχαί" such as the beginning of a road, and has steadily broadened the notion to philosophically more interesting cases, representing each step as a plausible extension of the previous ones, so that he can conclude that they are all called ἀρχαί because they are in some sense "the first thing whence": in the process, he moves from examples of the beginning part of a thing to ἀρχαί that are not ἐνυπάρχουσαι. His common formula allows him to "collect" a notion of ἀρχή that he can use in examining the claims of different things to be the ἀρχαί; at the same time, it allows him to argue that it is not essential to ἀρχαί to be ἐνυπάρχουσαι, and he will make crucial use of this, together with Δ3's contrasting "collection" of στοιχεῖον, in the subsequent argument of the Metaphysics.

A similar "collection" is found in Δ11 on "prior" and "posterior," which is closely connected with Δ1. If an ἀρχή is "the first thing whence," then to test the claims of different things to be ἀρχαί we need to clarify the meaning of "prior" [πρότερον] and thus of its superlative "first" [πρῶτον = πρώτιστον]; and these are said in many ways, which Δ11 duly distinguishes (indeed, when Δ1 says

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[66]Kirwan says that only Δ27, "κολοβόν" ["incomplete" or "mutilated"] "does not distinguish more than one sense"--so he takes it that Δ3 does distinguish different senses of στοιχεῖον. it depends on how you individuate senses
[67]after enumerating several kinds of things that are called ἀρχαί, it says "ἰσαχῶς δὲ καὶ τὰ αἴτια λέγεται· πάντα γὰρ τὰ αἴτια ἀρχαί" (1013a16-17)

that the ἀρχή is the first thing whence something "either is or comes-to-be or is known," it implies Δ11's distinction between priority in οὐσία, in time and in knowledge). But, besides listing various ordinary and technical uses of "prior," Δ11 also singles out one special sense--"things are [also called] prior and posterior by nature and οὐσία, [namely] those things which can be without others, but those others cannot be without them: Plato used this division" (1019a1-4)[68]--and it argues that "all things which are called prior and posterior are in some way said according to this sense" (1019a11-12). Thus whenever X can be said to be prior to Y, the ultimate ground for this description is that in some sense X can exist without Y and not vice versa; and this concept of priority, though it still needs further determination, is a further step in being able to test claims of ἀρχαί. There is a telling contrast with Categories c12, which enumerates many of the same τρόποι of "prior," including Plato's test, but makes no attempt to find a single fundamental sense or to reduce derivative senses to prior ones. Indeed, the Categories never tries to distinguish primary and derivative meanings of any term (except for primary and secondary οὐσία), whereas Δ, even in chapters that otherwise parallel discussions in the Categories, generally does try to. In this and similar cases where Δ "collects" the primary meaning of a term X, it begins with things that ordinary people, or specialists of some kind, or earlier philosophers, say to be X, and then brings out their implicit grounds for calling these things X: the things that other people call X may turn out not to be X in the highest degree, indeed they may turn out not to be X at all, but (Aristotle will argue) these people will have to admit that, on their own grounds, the things that Aristotle calls X have the best title to be called X. Aristotle's strategy in Δ thus has much in common with his strategy for persuading someone that his good-itself is better by their own standards than what they call good, or that his wisdom is more wisdom by their own standards than what they call wisdom. Not that such a strategy is original to Aristotle: it was surely Plato who had argued that people who say that something is prior because it is prior in time or in λόγος are implicitly assuming Plato's test for priority, so that Plato's test can decide between the conflicting claims and show what things are truly prior, just as he had argued in the Sophist that people who make different claims about what is being are implicitly assuming that being is what can act or be acted on, so that this test can show what things are truly being.

Most articles in Δ do not claim that there is one fundamental sense of X that applies to everything that can be called X. They may still, however, "determine what is the proper and primary concept of each of the terms" by various techniques for eliminating derivative senses of a term or reducing them to more primary senses, without saying that they fall under the primary sense. Thus three important and closely related articles (Δ6 "one," Δ7 "being," Δ9 "same") begin by describing the things that are called X per accidens, before coming to the things that are called X per se; three other articles (Δ2 "cause," Δ13 "ποσόν", Δ15 "πρός τι") also distinguish the things that are called X per accidens, although they do not start from these.[69] In each case the main purpose is, by eliminating the things that are X merely per accidens, to help us reach a clearer concept of what is involved in being X for the things that are X per se. This procedure is one way of eliminating a posterior sense by deriving it from a prior sense, since whatever is X per accidens will be so only through something prior which is X per se; but the per accidens sense will not "fall under" the per se sense. But Aristotle also has other techniques for showing that a sense of X is essentially dependent on some prior sense of X, even where he does not dismiss the derivative sense of X as merely per accidens. Thus, as we have seen, Δ6 on one, Δ10 on contraries, and Δ16 on τέλειον, describe some things as being X primarily, and others as being X because they stand in

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[68]one interesting text issue: EJ have the imperfect ἐχρῆτο, A^bM the aorist ἐχρήσατο. Bekker and Bonitz and Ross print the aorist, Christ and Jaeger the imperfect, which seems more likely

[69]note that while Aristotle's procedure is very often to start "from the bottom," with an ordinary-language sense or senses that he intends to subsume under a higher sense or derive from a higher sense, he also sometimes starts "from the top," e.g. in Δ14 ποιόν, discussed in the next note. perhaps he simply has not had the time or patience to rework these into a pretended sequence of discovery. it should also be said in general that some chapters in Δ are better worked out than others, in particular showing more clearly the connections between the different uses of the terms: this may simply be a sign that some chapters have reached a later stage of drafting than others

some relation of ἔχειν, ποιεῖν or πάσχειν to the things that are X primarily.[70] In all of these cases, we can say that Aristotle is "reducing" [ἀνάγειν] derivative senses of X to more primary senses, and in all of these cases he is arguing for a philosophical thesis about what sorts of things are X primarily, e.g. he is supporting the claim that the primary contraries are things that maximally differ (within some genus or ὑποκείμενον) by considering possible counterexamples of other sorts of contraries, and showing that they are all derivative from contraries of this sort.

   It is important to distinguish what I am saying about Aristotle's method in these chapters from a more extreme statement sometimes made about Δ, which can go with a quite different picture of Δ's role in the Metaphysics. Alexander says (345,8-11) that Δ is about some πρὸς ἓν λεγόμενα, namely those which are attributes of being quâ being and which are said in many ways because being is said in many ways. And it is sometimes said nowadays, both that the reason Δ would belong to metaphysics and not merely to lexicography is that it is about πρὸς ἕν equivocals, and that Δ serves the larger enterprise of metaphysics precisely by showing that each of the fundamental metaphysical concepts is said πρὸς ἕν rather than purely equivocally, and thus defending the science of metaphysics against the threat of fragmentation, just as, according to Owens and Owen and Frede, Γ2 defends metaphysics by showing that being is not purely equivocal but is said πρὸς ἕν in relation to οὐσία. However, it is simply not true that all the terms discussed in Δ are πρὸς ἕν equivocals:[71] most obviously, "cause" has four irreducible primary senses, and similarly with terms such as καθ ᾽ ὅ, ἔκ τινος, and "part," which are said according to matter and form or to all of the kinds of cause. (And Δ3 στοιχεῖον and Δ17 κολοβόν do not note any equivocity at all.) It remains that Aristotle is working hard to reduce the many apparently different things that are called X to a few primary senses--thus he argues that "all the causes which have now been mentioned fall under the four most manifest τρόποι" (Δ2 1013b16-17), by such dubious procedures as claiming that the premisses are the material causes of the conclusion. But this is what Aristotle's project in the Metaphysics requires. He does not want to reduce the causes of being that we must pursue to one single sense of "cause," of one single sense of "being"; he wants to have a small number of different causal chains, demarcated as clearly as possible from one another, so that he can show which of these succeed in reaching the ἀρχαί and which of them fail, and this is indeed what results from Δ2 on "cause" and from Δ7 on "being." (By contrast, Joseph Owens, Doctrine of Being pp.176-9, pp.223-6, tries to defend the unity of metaphysics by arguing that "cause" too is said πρὸς ἕν, primarily of the formal cause and derivatively of the other causes.) And even in cases where Aristotle does say that X is said πρὸς ἕν, he is not doing this to save the unity of the science of X, or to show that the knowledge of X belongs to the science of being because the many senses of X track the many senses of being across the categories. (Aristotle does say that something can be X by ποιεῖν or πάσχειν what is primarily X, but also by losing [Δ10 1018a34] or fitting with [Δ16 1022a2] what is primarily X, and losing and fitting are not categories. There seems to be only one passage in Δ where the equivocity of some other term is connected with the equivocity of being, Δ10 1018a35-8 on same and other and contrary.)[72] Aristotle's concern is not so much to unify as to reduce and eliminate all but a few primary senses of X, by showing that each given thing that is called X either falls under one of these primary

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[70]another interesting reduction is Δ14 ποιόν. one might expect this to be exclusively or chiefly about quality in the categorial sense, but it is not. ποιόν is said in two τρόποι, one of which is most principal, namely the differentia of a substance (the sense in which e.g. a circle is said to be ποιόν τι σχῆμα, a certain sort of figure); qualities in the ordinary categorial sense are described, derivatively from this, as πάθη τῶν κινουμένων ᾗ κινούμενα, καὶ [= i.e.] αἱ τῶν κινήσεων διαφοραί (it is rather nicely argued that virtues and vices fall under this description as being the differentiae of virtuous and vicious ἐνέργειαι/κινήσεις). one purpose of this is apparently to support the argument in Δ28 that the genus is the ὑποκείμενον of which the differentiae are the qualities (geometrical examples again); there may also be a connection with Δ21 πάθος.

[71]here as in Iβ2b (see note), I'm using "equivocal" as equivalent to πολλαχῶς λεγόμενον, and within the domain of πολλαχῶς λεγόμενα contrasting merely chance equivocals with things said πρὸς ἕν (or, also, with things said by πρόσθεσις and ἀφαίρεσις). but sometimes Aristotle uses "homonym" = "equivocal" more narrowly than πολλαχῶς λεγόμενον, and perhaps I should too

[72]but note that some of these kinds of reduction are also used to illustrate how being is said πρὸς ἕν at Γ2 1003b5-10. think about how important this is; the point stands that the reduction is not always categorial

senses, or is X only improperly, or is dependent on some other more primary X. And, as we say in Iβ2b, Γ2 was not trying to unify the study of substances with the study of accidents in a grand theory of being, but rather to argue that in studying the causes of being, we can restrict ourselves to the causes of substances, since the other beings are dependent on substances and the causes of substances will thereby be causes of all beings; and he does in fact restrict himself to the study of substances, with a few specially motivated exceptions, for the rest of the Metaphysics.

Why these terms in this order?

These points about Δ's service in the larger metaphysical project bring us back to Bonitz' objection that Δ is a random assembly of articles, with no reason for selecting just these terms, or for presenting them in this order. And Bonitz is certainly right that there is no one overall scheme which will explain why precisely these terms, still less why precisely this order.[73] As said above, Δ must have been "loose-leaf," with chapters added at different times, for different reasons, to a core that must always have been conceived as essential to the book. Undoubtedly, yet other terms could usefully have been added but never were. But this does not mean the book was put together at random, and in many cases we can say something about why a given chapter is there; and we can reply to some complaints against particular chapters.[74] In general, there are four (mutually compatible) kind of explanation for the presence of a particular article in Δ, some of which may also help to explain why an article is in its particular position.

(i) As we have seen, in some cases the article on X in Δ directly fulfills a promise in Γ to distinguish the primary and derivative senses of X, or, at least, picks up on a promise in Γ that wisdom will study X, which, since X in fact has many senses, requires that we start by distinguishing those senses; since the lists of terms X about which Γ makes either the more specific or the more general promise are clearly illustrative rather than exhaustive, it may be that many articles of Δ which do not explicitly pick up on promises from Γ should nonetheless be seen as fulfilling the same program.

(ii) The article on X may collect a single primary concept (or a few equally primary concepts) of X, eliminate derivative or improper senses of X, or draw a crucial distinction between two senses of X or between X and Y, in order to be used later in the Metaphysics: most typically in demarcating the senses of being to be investigated in the different branches coming out of E1 (E2-3, E4/Θ10, ZH, Θ1-9), in resolving aporiai from B, and in various uses in Iota. Iota has a much higher density of references to Δ than any other part of the Metaphysics, whether because it is following a program from (Γ and) Δ more closely than other parts of the Metaphysics, or simply because Aristotle has worked up the text of Iota with explicit back-references more fully than he has with other parts of the Metaphysics (this last explanation is certainly at least part of the truth, and it might be the whole truth). As this last point reminds us, the article on X might be there because Aristotle intends to use it later in the Metaphysics, even in cases where the later text does not explicitly refer to Δ (i.e. does not say ὥσπερ εἴρηται ἐν ἄλλοις or ἐν τοῖς περὶ τοῦ ποσαχῶς) but merely repeats the same definition or distinction; indeed, even in cases where it seems that no text of the Metaphysics as we have it would have benefited from citing Δ's article on X, Aristotle may still written that article with the intention of using it later.

(iii) Even apart from any metaphysical interest that X may have in itself, Aristotle may include an article on X because it forms part of a coherent series of articles which he wants to include: he might include X and Y in sequence because he wants to make reference to X in defining Y (or in defining particular senses of Y), or he may want to distinguish X from Y, either where X and Y are coordinate species of the same genus, or where X is a more general concept and Y is a more specific concept and the two are in danger of being confused (as with Δ1 ἀρχή and Δ3 στοιχεῖον, and within Δ9 with "other" and "different," and within Δ10 with "opposite" and "contrary"). These

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[73]for an attempt, see Thomas, discussed by McInerny cited above

[74]I will not give in-depth discussions of any of these chapters here; I will discuss Δ7 (being) in detail in Iγ1c, and several of the other chapters when I discuss later passages of the Metaphysics that draw on them.

articles might be printed by the editors as separate chapters, or within a single chapter. There are some obvious and perhaps trivial cases of such sequences, for instance when after an article on X there is a brief note on the contrary of X (e.g. from "one" to "many" within Δ6), but there are also longer coherent series, which I will note below.

   (iv) More speculatively, it is also possible that Aristotle includes an article on X, not because he plans to say anything in particular about X in pursuit of his grand argument about ἀρχαί, but simply because he wants to show that the terms standardly discussed by dialecticians and sophists (very roughly, the terms that turn up in the second part of the Parmenides) are also treated in a properly scientific and causal way in first philosophy.[75] Γ2 does make this claim, and while the Metaphysics does not do much to follow up on it beside Γ3-8 on the principles of noncontradiction and excluded middle and some chapters of Iota (which are more concerned with the grand question about the ἀρχαί, but do also address e.g. whether one thing can have two contraries), the claim may have helped to broaden the scope of Δ beyond what was strictly necessary for the project of the Metaphysics.[76] This may help to explain, in particular, the often-noted overlaps between the lists of terms covered in Δ and in the Categories (not only category-names like οὐσία, ποσόν, ποιόν, πρός τι, but also the "postpredicamental" concepts of "opposite," "prior" and ἔχειν); even where Δ parallels the Categories, its approach is distinctively causal (as noted above), and this may have been deliberately intended to make a point about the differences between the metaphysician and the dialectician. In any case, this reason for including an article on X is not fully distinct from the first reason, since it too can be seen as fulfilling a promise from Γ.

   The reasons for both the inclusion and (in some cases) the order of the terms are clearest for Δ1-10. To begin at the beginning, Δ1-3 are there because Γ1 has announced an investigation of the ἀρχαί and causes and στοιχεῖα of beings. More specifically, Δ2 is necessary in order to distinguish different causal paths (the study of the material, formal, efficient and final causes), and Δ1 and Δ3 are there to distinguish constituent from non-constituent ἀρχαί, allowing him in later books to solve aporiai by distinguishing στοιχεῖα from ἀρχαί (in Z17 and in Λ4), and to make the claim (central especially to Λ) that searching for στοιχεῖα, i.e. for constituent causes, will not lead to ἀρχαί that are genuinely first. Whatever Aristotle's reasons for adding Δ4-5, his reason for adding them where he did is that they continue this discussion of causal concepts, as none of the other chapters of Δ do. And the reasons for adding Δ5, "necessary," are obvious enough: Aristotle will refer to the distinctions between different senses of necessity at E2 1026b27-30, in explaining the non-necessary and non-uniform happenings that are the causes of being per accidens, but also and more importantly at Λ7 1072b10-13 in describing the mode of necessity of the first ἀρχή, the first unmoved mover. Since Δ5 concludes that "the first and principally necessary" is "the simple" (1015b11-12), which is eternally constant and cannot be otherwise, "so if there are eternal and unchanging things, nothing in them is violent or contrary to nature" (1015b14-15), it seems clear that Δ5 was written specifically to support the argument of Λ7 or something like it.[77] The reasons

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[75]note on the list of predicates in the Parmenides, one/many, part/whole (also τέλειον), same/other, equal/unequal, similar/dissimilar, contrary, "in" (correlative to ἔχειν), limit … Aristotle doesn't include all the Parmenides' predicates, e.g. motion or rest or coming-to-be or infinite or contact, presumably because, unlike Plato, he thinks these are proper to physics

[76]maybe note Γ mentions of the question whether one thing can have more than one contrary, as a sample of the sort of issue addressed in dialectic {the principle that a single thing can have only one contrary is used in the Protagoras to show the identity of two virtues, and Aristotle comments on this dialectical strategy in the Topics} and maybe also in first philosophy. this is taken up here in Iota 5 (the answer, no, is derived from the definition of contrariety as the greatest difference within a genus), and it seems that the only reason Aristotle raises the issue is to shoot down Academic views on which the equal is contrary to the great and small [what is going on at NE X 1073a5-13? the issue is anyway raised there]

[77]see discussion of Δ5 and Λ7 in IIIγ1; I translate the passage from Δ5 there, and discuss the textual issues at 1015b14-15. Δ5 is another example of "reduction" as discussed above. Aristotle starts with various ordinary-language examples of things that are called necessary (including what is violently imposed and therefore painful), then says that "what is not capable of being otherwise" is so necessarily, and argues that all other necessary things are in some way said according to this kind of necessity. then he adds a further reduction: what is demonstrated is necessary, so the first premises of demonstrative syllogisms must also be necessary, and are the cause of other things' being necessary; so

for the inclusion of Δ4, "nature," are not quite so clear: the text is, in content although not verbally, close to Physics II,1, and it might have been sufficient for the Metaphysics to rely on Physics II,1 (but it might also have been sufficient for the Metaphysics to rely on Physics II,3 on causes, and there Aristotle decided to give the same discussion almost verbatim in Δ2). But whether in Physics II,1 or in Metaphysics Δ4, the main lesson is that the form of a natural thing has as good a right, indeed a better right, to be called a nature (as an internal principle of motion) than the matter does: this distinction between two senses of φύσις is explicitly invoked at Z7 1032a15-25, but, more importantly, it implicitly underlies the arguments in E1 and at Z11 1037a13-17 that the physicist deals with the form as well as the matter of natural things, and therefore that the metaphysician does not deal with the forms of natural things, except as a means to further ἀρχαί (see Iβ2c above). (The definition of nature may also help to establish that an unmoved mover, not present within what it moves, falls outside the scope of physics, so Physics II,7 198a27-31 and cp. Metaphysics Λ1 1069a36-b2; it is also presupposed in the contrasting definition of δύναμις in Δ12, explicitly juxtaposed with the definition of nature at Θ8 1049b5-10.)

   Δ6-8, on one (and many), being and οὐσία, and Δ9-10, on same, other, different (and similar and dissimilar), opposites and contraries, are also clearly dictated by the Γ1-2 program of investigating the causes of being and its per se attributes. Besides clarifying the senses of being, we must also clarify the senses of οὐσία, since (as Γ2 says) we will investigate the causes of being in general by investigating the causes of οὐσία alone. Also, to resolve B#5, and to establish first philosophy as described in E1, we need to determine whether there are οὐσίαι existing beyond the sensible οὐσίαι, and so we will need to clarify the concept of οὐσία, not just to delimit the effect we are studying, but also to test whether the causes fall under this concept; the two reasons come together inasmuch as the causes are likely to be shown to be οὐσίαι precisely by being the οὐσίαι of the sensible οὐσίαι (the sensible οὐσίαι are what we get by pointing and asking τί ἐστι, and we might reach further οὐσίαι and causes if we keep on asking τί ἐστι). For both of these reasons Metaphysics Z needs to clarify the concept of οὐσία and distinguish its senses, and as we will see it relies implicitly on Δ8, although it does not explicitly cite this chapter and Z3 1028b33-6 cites a somewhat different division (see IIα3 below). Γ2 also clearly mandates a treatment of unity, the most obvious attribute coextensive with being; and, "since it belongs to one [science] to consider opposites, and plurality is opposite to unity" (Γ2 1004a9-10), also plurality; and the Δ6 account of unity will be taken up in Iota 1-2, in order to resolve B#11, proving that unity does not exist separately, and therefore is not an ἀρχή. The placing of unity (Δ6) before being (Δ7) is surprising, but Aristotle wants to use analyses of different senses of "X and Y are one" as models for different senses of "X is Y": most clearly, the account of unity per accidens which opens Δ6 is the model for the account of being per accidens which opens Δ7, and also the account of sameness per accidens which opens Δ9.

   The Δ9-10 accounts of sameness and otherness and so on are also explicitly mandated by Γ2:[78] the science should treat not only the "species of being" (presumably the categories) but also the "species of unity" such as "same and similar" and equal (1003b34-6), and also "their opposites, other and dissimilar and unequal, and whatever else is said under sameness or plurality or unity ... including contrariety, since contrariety is a kind of difference, and difference is an otherness" (1004a17-22); and since each of these terms is said in many ways, in each case we must start by distinguishing the primary sense and show how the other senses are reduced to it (1004a25-31, cited above). But Aristotle's specific reason for including Δ9's treatment of sameness per accidens

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"the first and principally necessary" is "the simple," and so "if there are eternal and unchanging things, nothing in them is violent or contrary to nature." thus the kinds of necessity that people ordinarily talk about and use in explanations, whether physical constraint (the physicists are notoriously always asking "by what necessities" things come about) or deductive validity, are shown to be dependent on a higher and better kind of necessity. this is almost the only example in Aristotle of what should according to Owens and Patzig and Frede be a common pattern, of showing that some term X is said primarily of God and only derivatively, perhaps by a series of derivations, of other things

[78]there is no objective ground for the chapter-division between Δ9 and Δ10 (and the editors have in any case given up here on having one chapter per term): Δ9-10 are a single continuous discussion, and indeed, Δ6 and 9-10 might well have been a single continuous discussion, had Δ6 not been preposed to give a model for Δ7

(which, surprisingly, takes up two thirds of the treatment of sameness) is to provide the prerequisites for the argument at Z6 1031a19-28 (verbally strikingly close). Z6 does not explicitly refer back to Δ9, but this is a symptom of the general fact that Z6 (like much of Z) is compressed and cryptically written and has not yet been decked out with explanations and references.

    After sameness Aristotle gives an automatic one-sentence account of its opposite otherness (Δ9 1018a9-11), paralleling the one-sentence account of plurality at the end of the chapter on unity (Δ6 1017a3-6); he also has a brief discussion of similar and dissimilar, as called for in Γ2. But the main interest in Δ9-10 (after the account of sameness) is in difference and especially in contrariety. "Other," "different," "opposite" and "contrary" are a connected series of terms building up to a clarification of contrariety: Aristotle calls for their study in Γ2, distinguishes them here, and investigates them in Iota (Iota 3-4 call on the Δ9-10 accounts of sameness, likeness, otherness, difference, contrariety and the other modes of opposition; for all these arguments in Iota see Iγ2b-c). In all these texts the main interest is in contraries, because it is contraries that are the most plausible ἀρχαί ("everyone makes everything out of contraries," Λ10 1075a28, "everyone makes the contraries ἀρχαί", Physics I,5 188a19; Iota does in fact call the contraries ἀρχαί, Iota 7 1057b22-3, although they are not ἀρχαί in the strict sense, because they cannot exist apart from their genus). The Parmenides does seem to take otherness as an ἀρχή (cf. 158b5-d8), presumably without the benefit of Aristotle's distinction between otherness and difference: with this distinction, otherness as a mere negation[79] can be neither a cause nor an independent nature; difference (an otherness that presupposes a sameness, e.g. two things can differ in species only if they are the same in genus) does imply a positive nature, and a thing's differentiae are causes of it, but Iota will argue that the lesser differentiae are not ἀρχαί but rather derive from the maximal differentiae in each genus, the contraries. So one reason for distinguishing otherness from difference is to show that otherness cannot exist separately; the other reason is to prepare for the definition of contrariety as maximal or complete difference, which depends on distinguishing difference from otherness, and which will in turn be used to prove that even contraries, the most plausible ἀρχαί, cannot exist separately from a particular genus. Again, the account of the different senses of "opposite" (Δ10 1018a20-25) is mainly intended to distinguish contrariety, the subject of the bulk of Δ10 (1018a25-35), from the other kinds of opposition: this helps to delimit more precisely the kinds of opposites that might be ἀρχαί, and to eliminate those that cannot (thus great and small are not contraries but correlatives, and no relative can be an ἀρχή, N1 1088a21-35; the equal is not the contrary of the great and small, but rather their privation, Iota 5, against any Academics who might want the equal as a positive formal ἀρχή contrary to the great and small).[80]

    It is clear that the necessity both of the inclusion of the terms and of their sequence drops off after Δ10. Still, we can often see that a term is there for one or more of the kinds of reasons noted above. As we have seen, the end of Γ2--"it does not belong to the geometer to consider what is the contrary or the perfect/complete [τέλειον] or one or being or same or other, except ex hypothesi. So it is clear that it belongs to one science to consider being quâ being and its attributes [ὑπάρχοντα] quâ being, and that it considers not only οὐσίαι but also attributes, both the aforesaid and prior and posterior, genus and species, whole and part and others of this kind" (1005a11-18)--seems to be giving a program not only for Δ6-10, but also for at least Δ11 (prior and posterior), Δ16 (τέλειον), Δ25-6 (whole and part), and Δ28 (genus).

    Δ11, on prior and posterior, begins the sequence, and seems to be intended as the most important chapter of Δ11-30 (at B1 995b20-22 it is the only term flagged beyond those of Δ6-10): by distinguishing the relevant senses of priority (priority in time, favored by the physicists, priority in λόγος, favored by Platonists), and arguing that the principal sense of priority is priority in οὐσία as

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[79]a slight oversimplification, see Iota 3 1054b18-22, but this doesn't affect the point
[80]options for Δ10 1018a38-b8 or more broadly a35-b8: (i) transpose as Jaeger suggests to Δ9, (ii) take as an appendix to Δ9-10 as a whole, or (iii) take as commenting specifically on contrariety, difference in species within a genus as depending on the characteristic contrariety of that genus. see Iγ2b for a detailed discussion of the use of Δ10 1018a38-b8 in Iota 8; since Iota follows the order of Δ9-10 fairly closely, with digressions such as Iota 5-6, it seems clear that Aristotle did intend Δ10 1018a38-b8 to stand here at the end after the discussion of contraries, corresponding to Iota 8-9, and separate from the Δ3 discussion of otherness and difference, corresponding to Iota 3

determined by Plato's test (appropriately filled out),[81] it will allow us to settle the disputes from B about what things are ἀρχαί. Θ8 clearly refers back to Δ11 (1049b4-5), and its application of the different senses of priority to ἐνέργεια and δύναμις is crucial to the overall argument of the Metaphysics.[82] Many other chapters of Δ11-30 seem to be there to be drawn on especially in Θ, Iota, and Z. Notably, Δ12 (δύναμις, ἀδυναμία, δυνατόν, ἀδύνατον) is crucial for Θ, and is cited explicitly in Θ1 (1046a4-11: διώρισται ἡμῖν ἐν ἄλλοις, a5-6), which dismisses the senses of δύναμις marked as metaphorical or merely homonymous in Δ12 (1019b33-1020a2, e.g. "square root"), and follows Δ12 in reducing the others, each a kind of ἀρχή, to the primary sense, an ἀρχή of change in something else or in the thing itself quâ something else. (Δ12 also connects with earlier chapters of Δ, in that its primary sense of δύναμις is modelled on the definition of nature in Δ4, its clarifications of δύναμις and δυνατόν are key to resolving the question when something is δυνατόν, explicitly left open at Δ7 1017b8-9, and its notions of δυνατόν and ἀδύνατον at 1019b22-33 are interdefining with the primary sense of ἀναγκαῖον from Δ5; all of these connections will be exploited in Θ.) Likewise Δ15 on πρός τι, Δ16 on τέλειον (the most surprising of the terms signalled at the end of Γ2), and Δ22 on privation are there chiefly for uses in Iota: distinctions in the senses of opposition, of contrariety and of privation are all invoked together in Iota 4, Iota 4 also draws on Δ16's notion of τέλειον in explaining contrariety as τελεία διαφορά (and cp. τελεία στέρησις, Iota 4 1055a33-5), and Iota 6 explicitly cites Δ15's distinction among senses of πρός τι to show how the one is opposed to the many. In Δ18 the distinction between the two main senses of καθ᾽ ὅ (1022a14-24; in one way, he is white κατά dilating the visual ray, in another way κατά his surface) is instrumental to the corresponding distinction in senses of καθ᾽ αὑτό (1022a24-b36), and this is included because it is in turn instrumental in the account of the essence of X as what X is καθ᾽ αὑτό in Z4 1029b13-22 (the texts are verbally close, sharing the talk of τὸ τί ἦν εἶναι even of an individual subject, and the example of the surface being white καθ᾽ αὑτό). Likewise the account of the senses of "part" in Δ25 is used in Z10 1034b32-1035a22 to resolve the aporia from B#6 about whether the parts of a thing should be mentioned in its λόγος ("part is said in many ways," 1034b32: crucial is the distinction between parts of the matter and of the form, but the sense of quantitative part is also taken from Δ25); this is presumably why Δ25 was included. Δ28 on genus, fulfilling a promise from the end of Γ2, traces different senses of genus back to different senses of cause, especially matter and form, and seems mainly intended to argue for the thesis of later books that genus is matter (1024a36-b9); Iota 3 1055a2 has a clear reference back to Δ28 1024b9-16.[83] And the final chapters, Δ29 on falsehood and Δ30 on accident, must have been appended to help in the treatment of the two "minor" senses of being from Δ7, being as the true (E4 and Θ10) and being per accidens (E2-3; on both of these, see Iγ1c below).

However, some of the articles in Δ seem to be motivated neither by the program of Γ nor by uses later in the Metaphysics (at least as we have it), but simply because they belong to series of terms that Aristotle wants to keep together; some of these series have parallels in the Categories, which suggests that Aristotle may present them here in order to show that the first philosopher can treat scientifically the same terms that the dialectician treats unscientifically. In any case, these series (as well as the series we have noted within Δ6-10, and δύναμις-ἀδυναμία-δυνατόν-ἀδύνατον within Δ12) help to explain the order of the articles in Δ. Thus Δ13-15 on quantity, quality, and πρός τι take up the same three categories as Categories cc6-8 (the Categories puts πρός τι immediately after quantity, perhaps because the first kind of relations are quantitative relations, i.e. proportions); these chapters can also be seen as picking up from ὄν in Δ7 and its first subtype, οὐσία, in Δ8, after Aristotle has dealt with more urgent concepts. Likewise Δ19 on διάθεσις and Δ20 on ἕξις (which

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[81]cross-reference to discussion elsewhere, problem of exactly how Plato's test is to be filled out so with an appropriate notion of εἶναι so as not to imply the priority of universals to individuals, genera to species, or parts to wholes
[82]cross-references, esp. IIIα3. also note Z1, but some discrepancies there
[83]see a note above for the point that the reference is to Δ28 rather than to Δ9. Iota 3 1054b27-30 makes the Δ28 connection especially clear. also note use of Δ28 at the end of Iota 8. note in Δ28 trying to show how the technical meaning falls under one of the ordinary meanings. curious insistence here and elsewhere in Δ on genus as ὑποκείμενον-matter and διαφορά as ποιότης. (transition via Pyrrha: choosing example of plane figures, same genus = same intelligible matter, to reduce the dialectical sense to the third physical sense)

should by the editors' usual rule be a single chapter, since they are connected by a δέ, and the discussion of ἕξις refers repeatedly to διάθεσις), and then Δ21 on πάθος, take up the first and third kinds of qualities from Categories c8 (ἕξεις and διαθέσεις 8b26-9a13, πάθη and παθητικαὶ ποιότητες, corresponding to Δ21's two main senses of πάθος, 9a28-10a10; the Categories' second kind of quality, δυνάμεις and ἀδυναμίαι, were covered in Δ12, and its remaining kind, σχήματα and μορφαί, are omitted). Δ16, τέλειον and τέλος, and Δ17, πέρας, also form a series (compare Δ16 1021b12-13 with Δ17 1022a4-5). Finally, there is a more elaborate series connecting Δ24 ἔκ τινος with Δ25 "part" (one of the senses of ἐκ is "as the parts are ἐκ the whole," Δ24 1023a32, and the two chapters share the distinction between parts of the matter and parts of the form or form-possessor), and then with Δ26 "whole" (and "all") and Δ27 "mutilated [κολοβόν]" (something is mutilated if it fails to be whole, i.e. fails to contain all its appropriate parts): all of these articles take up the topic of whole and part announced at Γ2 1005a17.[84] Indeed, Δ26 "whole" and Δ27 "mutilated" are not merely parts of a connected series of articles, but are connected by δέ and should thus be printed as a single chapter; these considerations help to address the complaint of Bonitz and Ross that Δ contains some terms not appropriate to metaphysics, since they both take "mutilated" as their star example (cp. Aristotle Symposium Fr. 2 Ross, οὐδὲν κολοβὸν προσφέρομεν πρὸς τοὺς θεοὺς ἀλλὰ τέλεια καὶ ὅλα).

Jaeger's problem about references back to Δ

I have now responded at least in passing to almost all the objections brought by Bonitz and Jaeger and Ross against taking Δ as an originally intended part of the Metaphysics. But one objection of Jaeger remains to be answered. Jaeger notes that, although later books of the Metaphysics sometimes cite Δ with phrases like διειλόμεθα πρότερον ἐν τοῖς περὶ τοῦ ποσαχῶς (Z1 1028a10-11, Iota 1 1052a15-16), suggesting an earlier part of the same work, they also sometimes use phrases like διήρηται ἡμῖν ἐν ἄλλοις (Θ1 1046a4-6, Iota 4 1055b6-7, Iota 6 1056b34-35), suggesting reference to a different work. Jaeger argues that we should regard the "ἐν ἄλλοις" references as decisive, that "πρότερον" does not imply earlier in the same work; in support of this claim he assembles a number of passages where one physical work refers back to a different physical work, earlier in an idealized order of learning, with εἴρηται ἐν ἑτέροις πρότερον, and he argues that the Metaphysics references to Δ are likewise references to an "earlier" work (Entstehungsgeschichte pp.118-120). But Jaeger's argument depends on uncritical notions of "the same work" and "different works." As we saw in Iα5, Aristotle's cross-references are to earlier and later places within the same idealized series of lectures which an idealized learner would attend, or within a series of texts putting in written form the content of that idealized lecture-series, and that series can be divided up as finely or as crudely as is convenient on any given occasion. Jaeger's examples of "εἴρηται ἐν ἑτέροις πρότερον" are all cross-references between different parts of Aristotle's Περὶ φύσεως (from the Physics through Meteorology), which can be regarded as a single treatise in eighteen books, or as the Physics and then the De Caelo and so on, or as the Physics (= Physics I-IV) and then the On Motion (= Physics V-VIII, or V-VI and VIII) and then the De Caelo, or however we wish to divide it.[85] The Metaphysics too is such a series of texts, earlier and later in the ideal order of learning, teaching the science of first philosophy as the Περὶ φύσεως teaches the science of physics. A later part of such a series can refer back to an earlier part as "ἐν τοῖς περὶ X" or "ἐν ἄλλοις", and these are references to a unit of text contrasting with the present unit, but the units can be of any scale, and no inference can be drawn as to whether the

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[84]Δ23 ἔχειν (and ἔν τινι) should probably go here too: note Δ23 1023b17 on the whole ἔχειν the parts. (Ross prefers to group Δ23 with Δ22 on privation). in any case Δ23 takes up the topic of Categories c15. note that Δ26 on the distinction between ὅλον and πᾶν is taking up an issue from the Theaetetus which will be important in Z. note also that Δ26 1023b35-6 has a back-reference to Δ6, ὥσπερ καὶ ἐπὶ τοῦ ἑνὸς ἐλέγομεν, which implies some conception of Δ as a continuous discussion

[85]see Ross' introduction to the Physics for the possibilities

references are to "the same work" or "a different work." [86] Δ is cited in later books of the Metaphysics as ἐν τοῖς περὶ τοῦ ποσαχῶς, but equally Z is cited as ἐν τοῖς περὶ οὐσίας λόγοις (Θ8 1049b27-8, Iota 2 1053b17-18) and B as ἐν τοῖς [δι]απορήμασιν (Γ2 1004a33-4, Iota 2 1053b10, M10 1086b14-16), and although Jaeger thinks that B is part of Aristotle's intended Metaphysics (the "Hauptvorlesung") and that Δ and Z are not, there is no difference in the form of citation. But it is equally possible to replace the more precise ἐν τοῖς περὶ τοῦ ποσαχῶς with the vaguer ἐν ἄλλοις (this might be done especially to avoid an inelegant repetition, e.g. τὸ Χ λέγεται πολλαχῶς, ὥσπερ εἴρηται ἐν τοῖς περὶ τοῦ ποσαχῶς). Cross-references "earlier" and "later" within the Metaphysics indicate positions in the ideal order of learning, and this is roughly the order of the books as we have them; in particular, the references in later books back to Δ, the reference forward from Δ7 1017b8-9 to Θ7, and the reference forward to Δ in the promissory note Γ2 1004a25-31, confirm that Δ is in its proper place in that order.

<center>Iγ1: the senses of being and the causes of being</center>

Iγ1c Δ7 and the many senses of being

Metaphysics Δ7 is clearly important. As we saw in Iγ1a, it structures the overall argument of Metaphysics EZHΘ; and even if all the references back to Δ7 were intrusions by Peripatetic editors, Δ7 would still be the only text where Aristotle systematically assembles and distinguishes all the meanings of being. And yet remarkably little has been done with the chapter--there are, for instance, no systematic discussions of it in two books with promising titles, Owens' The Doctrine of Being in the Aristotelian Metaphysics and Aubenque's Le problème de l'être chez Aristote.[1] The reasons are, presumably, that the chapter seems too abbreviated, and gives too little justification or explanation for the ways that it is cutting up the senses of being. But it is important to try to tease out the reasons that Aristotle is presupposing.

The senses of being that Aristotle distinguishes in Δ7 do not seem to fit neatly either with each other or with the senses that Aristotle distinguishes elsewhere, or with the senses that we might ourselves want to distinguish. A reader who has been reading continuously through the Metaphysics, and who has thus read the account of the many senses of being in Γ2, might well expect Δ7 to be about the different senses of being corresponding to the different categories. Instead, the primary division is into four: being per accidens, being as said of the categories, being as truth and being as actuality and potentiality; the division of senses of being according to the categories would be merely a subdivision of the second main sense. It is not at all clear how these different divisions are supposed to fit together. Being per accidens is described at 1017a7-22, and contrasted with being per se (1017a7-8 and again a19-23), as if these would be the only two senses of being, and then it is said that "however many things are signified by the figures of predication are said to be per se" (1017a22-3). This seems to say that being per se is just being as said of the categories. But then "being [εἶναι] and 'is' also signify that [something is] true"

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[86]Metaphysics Θ refers back to Z as ἐν τοῖς περὶ τοῖς οὐσίας λόγοις (1049b27-8); H, being itself part of the discussion of οὐσία, cannot refer back to Z by this formula and so says simply ἐν ἄλλοις (1043b16), but all of these texts could be referred to from outside as parts of a larger unit, e.g. "on being" or "on first philosophy." (Iota cites something from Z as ἐν τοῖς περὶ οὐσίας καὶ περὶ τοῦ ὄντος εἴρηται λόγος, 1053b17-18, a form of reference that could not be used in Θ, which is part of the περὶ τοῦ ὄντος λόγοι although not of the περὶ τοῖς οὐσίας λόγοι). Sophistical Refutations c2 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 premises (183a37-b2), i.e. in the project of the Topics as a whole, with a very close echo of the first sentence of the Topics. De Anima III,3 427a23-25 says "Empedocles says [B106] and ἐν ἄλλοις [B108]," and this is not evidence that B106 and B108 come from different poems; likewise when Politics VIII,3 1338a25-30 cites a version of Odyssey XVII,382-5 and then says that Odysseus ἐν ἄλλοις says what he says at Odyssey IX,7-8.

(1017a31), and "being <u>also</u> signifies what <u>is</u>, on the one hand potentially [δυνάμει], on the other hand actually [ἐντελεχείᾳ], [any] of the aforementioned [kinds of being]" (1017a35-b2): are these further senses of being neither <u>per se</u> nor <u>per accidens</u>? (We might also find it strange that being <u>per se</u> has as many senses as there are categories, since <u>Posterior Analytics</u> I,4 says that substances have being <u>per se</u> and accidents do not.) Again, it often seems as if the same instance of being will fall under several different senses of those distinguished in Δ7. Perhaps it is innocuous enough if the being asserted by (say) "Socrates is white" falls both under being-as-

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[1]Franz Brentano in another book with a promising title, although his list of topics is taken from Δ7 (he goes through each of its four senses of being, although he's mainly interested in the categorial senses), doesn't give a connected exegesis of the chapter, and it's hard to extract his answers to some of the basic questions I'll raise about the chapter. there are more extended discussions in Suzanne Mansion's <u>Le jugement d'existence chez Aristote</u> and in two recent books, Allan Bäck's <u>Aristotle's Theory of Predication</u> (Leiden, 2000), pp.62-87 and L.M. De Rijk's <u>Aristotle: Semantics and Ontology</u> (Leiden, 2002), v.2 esp. pp.108-16 and pp.136-9. there is also a very stimulating short article by Ernst Tugendhat, "Über den Sinn der vierfachen Unterscheidung des Seins bei Aristoteles (<u>Metaphysik</u> Δ7)," collected in his <u>Philosophische Aufsätze</u> (Frankfurt, 1992), pp.136-44 {originally published in N.W. Bolz and W. Hübner, eds., <u>Spiegel und Gleichnis</u>, Würzburg, 1983, pp.49-54}. of course, much has been written on Aristotle on being, in particular on the relation between 1-place and 2-place uses of being, which makes use of or has implications for Δ7: maybe list some of the most important (Owen, various Kahn, Matthen, Lesley Brown, David Charles). there are also some very interesting medieval discussions inspired in one way or another by Δ7, of which the most important is Fârâbî's in the <u>Kitâb al-Ḥurûf</u>, on which see my article "Fârâbî's <u>Kitâb al-Ḥurûf</u> and his Analysis of the Senses of Being," <u>Arabic Sciences and Philosophy</u>, v.18, n.1, March 2008, pp.59-97; I intend to discuss this medieval history in a further monograph

quality and under being-as-actuality; the ten categories and actuality and potentiality might combine to give a 10x2 grid of senses of being. But it is more disturbing that Aristotle gives "the man is musical" to illustrate being <u>per accidens</u>, "Socrates is musical" to illustrate being as truth, and (apparently) "[a] man is healthy" to illustrate categorial being--what is the difference supposed to be? Aristotle causes similar trouble when, in describing being <u>per accidens</u>, he says that "in this way even the not-white is said to <u>be</u>, since that to which it happens [συμβέβηκε] <u>is</u>" (1017a18-19), and then later gives "Socrates is not white" to illustrate being as truth. At best the examples do not seem well-chosen; at worst, they call into question whether Aristotle had clearly distinguished the senses of being that they are supposed to illustrate.

<p style="text-align:center">1-place and 2-place being</p>

Beyond these obvious difficulties there is a deeper difficulty which must be resolved if there is to be hope of restoring order to the distinctions of Δ7. This difficulty arises from distinctions Aristotle does <u>not</u> draw in Δ7, and can most easily be introduced by contrasting Aristotle's with modern distinctions of the senses of being. Since Frege and Russell, we standardly distinguish at least three senses of being, namely existence ("F is" or "there is an F," represented in logical notation as "$\exists x\, Fx$"), predication ("c is F," represented as "Fc"), and identity ("c is d," represented as "c = d"); we might also distinguish other less fundamental senses of being such as class-inclusion ("F is G," represented as "$\forall x\, (Fx{\rightarrow}Gx)$"). Δ7 pays no attention to these distinctions, and draws others that cut across them. Is this because Aristotle is, for better or worse, not "sophisticated" enough to draw Frege's or Russell's distinctions? The answer depends on which distinctions we mean. The modern distinctions between predication, identity, and class-inclusion depend on distinguishing (in Frege's terms) concepts from objects. That is, we say that "whales are mammals" cannot have "whales" as its logical subject, because "whale" is not an object-word but a concept-word, and so we reanalyze the sentence so that both "whale" and "mammal" appear in predicate-position, "$\forall x\, ((x\text{ is a whale}){\rightarrow}(x\text{ is a mammal}))$." Likewise, we say that "Hesperus is Phosphorus" cannot have "Phosphorus" as its logical predicate, because "Phosphorus" is not a concept-word but an object-word, so we analyze the sentence instead as "Hesperus = Phosphorus," where "=" is a 2-place predicate-term and "Hesperus" and "Phosphorus" fill its two argument-slots (and where we perhaps further analyze the sentence, using second-order quantification, as "$\forall F\, ((\text{Hesperus is }F){\leftrightarrow}(\text{Phosphorus is }F))$"). This is not something that we can expect Aristotle, without the concept-object distinction, to do: he takes "whales are mammals" and "Hesperus is Phosphorus" as simple predicative sentences, perhaps peculiar predications because the predicates are in the category of substance, but predications nonetheless. For the same reason, we cannot expect Aristotle to recognize that existence is a second-order predicate, a predicate of concepts rather than of objects. However, the distinction between existence, as a 1-place kind of being, and all the others, as 2-place kinds of being, is obvious enough and does not depend on modern theories.[2] But Aristotle never flags this

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[2]I will sometimes say existential vs. predicative being, equivalently with 1-place vs. 2-place being. "predicative" here must be taken broadly, to include identity and class-inclusion (or the subsumption of a species under a genus, which we may not want to take purely extensionally as class-inclusion). Lesley Brown claims that Aristotle has no in principle uncompletable 1-place sense of being, in other words that "F is" is always completable to "F is G" for some value of G (as "Jane teaches" is always completable to "Jane teaches French," "Jane teaches biology," or the like), and therefore that translating 1-place "F is" by "F exists" is misleading, because the English verb "exist" is uncompletable. I think Brown is wrong about Aristotle's semantics for 1-place being, but nothing I have said so far is intended to decide that issue; someone who agrees with Brown should not object to my use of "existential being." existential being is just 1-place being, whatever its semantics may be

distinction in giving what we might expect to be a full account of the different senses of being in Δ7. The large majority of his examples in Δ7 are of 2-place being, plus the "locative" assertion "Hermes [or: a herm] is in the stone" (1017b7) under being-as-potentiality; but the immediately following example "the half of the line [is]" (1017b7-8) 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 [συμβέβηκε] to is" (1017a18-19). And yet Aristotle seems to call no attention at all to this difference. Some scholars have tried to deny that Aristotle is aware of a distinction between existential and predicative senses of being,[3] but this is untenable in view of Posterior Analytics II,1, which clearly distinguishes the 2-place object of investigation "ὅτι"--e.g. whether the sun [is] eclipsed or not" (89b26)--from the 1-place object of investigation "εἰ ἔστι": "e.g. whether a centaur or a god is or is not: I mean 'whether [it] is or is not' simpliciter, not whether [it] is white or not" (89b32-3). But although Aristotle draws the distinction here, he ignores it in Δ7. This is therefore a real problem, and not just an illusory problem generated by our habituation to modern logical distinctions.[4]

   Of course, the problem could be solved if some of the distinctions in Δ7 did turn out to line up with the 1-place/2-place distinction. G.E.L. Owen thought that they did: he proposed that "being per se" in Δ7 corresponds to being in the sense of existence, which would then be divided into different senses of existence when applied to beings in different categories;[5] being per accidens would then be 2-place being, or a particular kind of 2-place being.[6] By contrast, Ross and Suzanne Mansion take both being per accidens and being per se in Δ7 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. Both the Owen interpretation and the Ross-Mansion interpretation would have the pleasant result that "the man is musical," cited by Aristotle as an example of being per accidens, would not also be an example of being per se (it would still inescapably be an example of being as truth, and presumably also of being as actuality). Unfortunately, both the Owen and the Ross-Mansion interpretations are impossible. What Δ7 says about being per se is as follows:

> However many things are signified by the figures of predication [τὰ σχήματα τῆς κατηγορίας = categories] are said to be per se: for in however many ways they [= the figures of predication] are said, in so many ways does "being" [τὸ εἶναι] signify. So, since some predicates signify what [the subject] is [τί ἐστι σημαίνει], others what it is like [ποιόν], others how much, others πρός τι, others action or

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[3]who? Gilson; can Kahn be cited for this? Brown thinks something almost like this, but not quite

[44]This contrast between Δ7 and Posterior Analytics II is correctly noted by Suzanne Mansion, Le jugement d'existence chez Aristote, p.218 and p.243. Mansion apparently thinks that the senses of being distinguished in Δ7 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 II. Lesley Brown, in "The verb 'to be' in Greek philosophy: some remarks" (in Companions to Ancient Thought: 3, Language, ed. Stephen Everson, pp.212-36), pp.233-6, notes both that Aristotle draws the existential-predicative distinction in the Posterior Analytics and that he does not do so in Δ7, and also sees that the distinctions he does draw in Δ7 crosscut with the existential-predicative distinction, but she wrongly concludes that Aristotle regards the existential-predicative distinction as unimportant.

[5]"Aristotle on the Snares of Ontology," LSD pp.260-1 and pp.268-9, some doubts creeping in in the latter passage. Owen is apparently followed by Kirwan pp.140-143

[6]Owen's support would be De Interpretatione c11 21a25-33, 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 ampliated vs. non-ampliated senses of "is" rather than about 1-place vs. 2-place senses, cf. Brown pp.233-4), this interpretation as applied to Δ7 cannot make sense of the text.

passion, and others where or when,[7] "being" [τὸ εἶναι] signifies the same as each of these: for there is no difference between "[a] man is healthy [ἄνθρωπος ὑγιαίνων ἐστίν]" and "[a] man is-healthy [ἄνθρωπος ὑγιαίνει]" or between "[a] man is walking" or "cutting" and "[a] man walks" or "cuts," and likewise in the other cases. (1017a22-30)[8]

Against Owen, all of the expressions using the verb "to be" that Aristotle is considering in the second sentence ("So, since some predicates … and likewise in the other cases") are 2-place uses of "to be"; against Ross and Mansion, all of these expressions except those corresponding to the category of substance are accidental predications, in the sense that the predicate is not contained in the essence of the subject. When Aristotle says in the first sentence that "however many things are signified by the figures of predication are said to be per se," he seems to mean that substance, quality, quantity and so on are said to be per se, and so he seems to want to include some 1-place uses of "to be" under being per se. But there is no correlation between the 1-place/2-place distinction and the per se/per accidens distinction: not only does being per se cover some 2-place examples, but being per accidens covers some 1-place examples--as we have seen, Aristotle says in describing being per accidens that "in this way even the not-white is said to be, since that to which it happens [συμβέβηκε] is" (1017a18-19), and Z4 will say that substance-accident composites (like white man) do not have being per se (1029b22-9).

A further point is that neither the Owen interpretation nor the Ross-Mansion interpretation can explain why being per se is said in as many different ways as there are categories. If Ross and Mansion were right, being per se would be expressed by sentences like "the horse is an animal," "courage is a virtue," "cutting is an action"--and "is" signifies the same thing in all of these sentences, namely the τί ἐστι.[9] If Owen were right, Aristotle would be saying that "is" or "exists" is said in different ways in "Socrates exists" and "courage exists" (or perhaps "the courageous [person] exists"). Aristotle might well be saying this, since he certainly believes it, but he is also supposed to be explaining the grounds for this belief, and the explanation he gives concerns the difference in the meanings of "is" in "[a] man is healthy" and "[a] man is cutting." Since Aristotle is explaining the equivocity of being per se, he must at least inter alia be talking about the equivocity of 2-place being with a substantial subject and a not-necessarily-substantial predicate. If he is also explaining the equivocity of 1-place being as said of subjects in different categories (and I agree with Owen that he is), then he must somehow intend the equivocity of 2-place being to explain the equivocity of 1-place being as well; and it will be important for us to spell out how.

It may help to first step back from Δ7 and give a few general reflections on Aristotle's attitude to 1-place and 2-place uses of "to be."[10] Although Aristotle is perfectly capable of distinguishing these uses, he also frequently groups them together: thus when Aristotle discusses whether "it is possible for the same thing both to be and not to be" (as at Γ4 1005b35-1006a1), this "is meant to comprehend both existential and predicative states of affairs--that is, it prohibits a thing existing as well as not existing, and equally it prohibits a thing being both F and not-F for any value of

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[7]query about ποιόν, ποῖον, ὅποιον. also funny to say signifying πρός τι [ἔστι?], since a relative term (e.g. "double") doesn't signify what the thing is related to. it may be that all these expressions are frozen and that it's pointless to try to construe them more precisely, but it may be worth asking

[8]textual issues, all small:

[9]this point made effectively by Tugendhat, p.138

[10]in some of this I will follow the lead of Mohan Matthen, "Greek Ontology and the 'Is' of Truth," Phronesis v.28 (1983), pp.113-35. I have some disagreements with Matthen, but his article is a model of lucidity in a field dominated by murk

'F'" (Matthen p.113). Even in <u>Posterior Analytics</u> II, where Aristotle most consistently distinguishes 1-place and 2-place being, he still treats them as analogous: investigating τί ἐστι is seeking the cause of the state-of-affairs εἰ ἔστι, as investigating the διότι is seeking the cause of the state-of-affairs ὅτι. Indeed, it is more than an analogy. "In all of these cases,[11] it is clear that τί ἐστι and διὰ τί ἐστι are the same. What is an eclipse? The privation of light from the moon due to blocking by the earth. Why is [there] an eclipse, or why is the moon eclipsed [διὰ τί ἔστιν ἔκλειψις, ἢ διὰ τί ἐκλείπει ἡ σελήνη]? Because the light departs when the earth blocks it" (<u>Post. An.</u> II,2 90a14-18). This kind of equivalence depends on our ability to transform assertions of 1-place being into assertions of 2-place being (or into predicative assertions, like ἐκλείπει ἡ σελήνη, which can be further transformed to assert 2-place being, ἡ σελήνη ἐστὶ ἐκλείπουσα), and vice versa. We have already seen something of Aristotle's techniques of transformation in the case of non-substances. Because "walking" [βαδίζον] is not a substance and is said of some other ὑποκείμενον, "the walking [thing], being something else, is walking [τὸ βαδίζον ἕτερόν τι ὂν βαδίζον ἐστί]" (<u>Post. An.</u> I,4 73b6-7, discussed Iβ4 above). Thus for [a] walking [thing] to exist is for something else to exist and to be walking; for white to exist is for something else to exist and to be white. Likewise for abstract terms: for [a] whiteness to exist is for something else to exist and to be (not whiteness but) white ("when the man is-healthy, then health too exists," against the Platonist claim that the form exists before the composite, <u>Metaphysics</u> Λ3 1070a22-3). We can put this by saying that, at least when F is a non-substance, Aristotle (like Frege and Russell) analyzes "F exists" as "for some x, x is F"--although it might be better to avoid the word "analysis" and speak merely of a necessary equivalence.[12]

Starting from this point, further transformations are possible. If F is <u>per se</u> predicated of some ὑποκείμενον, i.e. if there is only one subject, or only one range of subjects, that can possibly be F, then in rewriting "F exists" as "for some x, x is F," we do not have to quantify without restriction over all beings x, but can restrict ourselves to the relevant range of beings, or to the relevant single being. Thus [a] walking [thing] exists iff some animal exists and is walking; an eclipse exists iff the moon exists and is eclipsed;[13] white Socrates exists iff Socrates exists and is white Socrates. And the last case obviously allows a further transformation--white Socrates exists iff Socrates exists and is white--eliminating whatever part of the predicate F may be redundant once the subject x is restricted to the relevant range of beings (or, as in this case, to the relevant single being). As Aristotle says in the <u>Metaphysics</u> Δ6 account of unity <u>per accidens</u>, "it is the same to say that Coriscus and the musical are one and that musical Coriscus [is one]"

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[11]grammatically unclear whether this means just non-substances or includes substances too. as Barnes notes, further down (90a31-4) Aristotle states the same equivalence for all cases including substances. he may mean here that the equivalence is <u>clearer</u> in non-substance cases (which would be true), athough in his own view it holds equally for both

[12]I will suggest some caveats and refinements below, but this is a first approximation. for a example of the confusions that seem to arise whenever people talk about whether a Greek philosopher had "a concept of existence," Tugendhat p.140 says that whenever Aristotle talks about being in a sense that comes close to our talk of existence, he is talking about a substance, and that whenever anything like existence is attributed to something in the other categories, it means only "daß es einem Ding zukommt, womit aber wieder die so verstandene Existenz in die Prädikation zurückgenommen wäre." but of course from a modern point of view ∃x Fx is exactly the logical form we <u>want</u> a judgment of existence to take

[13]or so <u>Posterior Analytics</u> II,2 would lead us to believe; of course there are solar eclipses too; so substitute "[a] lunar eclipse exists." it is surely not coincidental that Aristotle takes <u>lunar</u> eclipses as his example here, since the moon genuinely is the ὑποκείμενον in a lunar eclipse (the moon is objectively deprived of light, observer-independent), whereas the sun is not genuinely the ὑποκείμενον in a solar eclipse (which depends on the position of the observer). same point holds for <u>Metaphysics</u> H4 1044b8-15

(1015b18-19);[14] presumably the Δ7 account of being <u>per accidens</u> assumes a similar transformability, so that it will be the same to say that Coriscus <u>is</u> musical and that musical Coriscus <u>is</u>.[15] And we can use the same principle of transformability, instead of unpacking a 1-place assertion of being into a 2-place assertion, to pack a 2-place assertion of being (or any other predication) into a 1-place assertion of being. Thus something is white iff [a] white [thing] exists, or equivalently iff [a] whiteness exists; Socrates is white iff white Socrates exists, or equivalently iff Socrates' whiteness exists.

   Aristotle also allows himself some further transformations, not all of which are as strictly justified. To begin with (and still strictly justified), Socrates is white iff [a] whiteness belongs [ὑπάρχει] to Socrates, or iff [a] whiteness is <u>in</u> Socrates. "[A] whiteness is in Socrates" or "there is in Socrates [a] whiteness" is what is sometimes called a "locative" or "locative-existential" use of εἶναι, and cannot be simply subsumed either under the "1-place" existential use or under the "2-place" predicative/copulative use.[16] Greek authors often pass very easily between pure existential and locative or locative-existential expressions. Thus "F exists" is often taken to be equivalent to "F exists somewhere" (and someone who says that F exists may be asked where it exists). Furthermore, in a given discourse context it may be assumed that when we ask whether F exists, we are asking whether it exists <u>in some given locus L</u>.[17] Contrary to a modern scholarly myth, it would be unusual Greek for someone to say "F is" elliptically for "F is G" (except where G has been cited immediately before--"Socrates is a criminal!" "He is not!"), but common enough to say "F is" elliptically for "F is in L." Thus the <u>Dissoi Logoi</u> say "the same man lives and does not live, and the same things are and are not: for the things that <u>are</u> here, in Libya <u>are not</u>, and the things that <u>are</u> in Libya <u>are not</u> in Cyprus; and the rest on the same pattern. So the things both are and are not" (DK90, 5.5)--this would support the myth[18] only if it said something like "the things that are white are not black, therefore the same things both are and are not." (To make the <u>Dissoi Logoi</u> argument sound less silly, let the "thing" be not an individual, but a species like the silphium-plant, which exists in Libya but does not exist in Athens, or the law against sacrificing one's children, which exists in Athens but does not exist in Libya: in these cases, we might in some contexts say "F does not exist," "there is no F," "there are no F's," when

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[14]accepting, with Jaeger, Bonitz' conjecture ταὐτὸ γὰρ εἰπεῖν Κορίσκος καὶ τὸ μουσικὸν <ἕν> καὶ Κορίσκος μουσικός (supported by Alexander?); or perhaps the ἕν could simply be understood from context

[15]as noted in Iγ2b, Δ7's account of being <u>per accidens</u> is meant to be smoothed for the reader by Δ6's account of unity <u>per accidens,</u> and this seems Aristotle's reason for putting Δ6 where it is, rather than with the closely related Δ9-10 (Iota takes up Δ6 and Δ9-10 together)--we might have expected a treatment first of being and what follows on being, then of unity and what follows on unity

[16]Kahn describes the "locative copula" as "the verb be construed with an adverb or prepositional phrase of place" (<u>The Verb "Be" in Ancient Greek</u>, p.157), e.g. "Socrates is here," "Socrates is in the house"; Kahn then distinguishes between "pure" locative uses of εἶναι and "paralocative" uses, i.e. "uses which are indistinguishable in form from the locative copula but where the meaning of the sentence is not primarily or exclusively locative" (p.159), of which the most important for our purposes is the "locative-existential," e.g. "in the middle of the crag is a dark cave." this is formally indistinguishable from the pure locative copula (except that the subject is usually postposited in the locative-existential, which it might or might not be in pure locative uses--in English we might often want to say "there is" in locative-existential contexts, just "is" in pure locative contexts, but there is no such lexical distinction in Greek), but it serves to introduce a new subject into the discourse: "there is, in L, an F; now let me tell you about that F." for all this see Kahn pp.156-67 and pp.261-77

[17]David Lewis gives a modern example: someone may say "there is no beer," meaning that there is no beer in the fridge, although there is certainly beer somewhere in the world; Lewis uses this to explain how he can say that there is no god, although he believes that there are uncountably many gods, because there is no god in the actual world, although there are gods in other equally real but non-actual worlds. reference? in <u>On the Plurality of Worlds</u>?

[18]as Myles Burnyeat claims it does in "<u>Apology</u> 30b2-4: Socrates, money, and the grammar of γίγνεσθαι", in the <u>Journal of Hellenic Studies</u> for 2003

we mean "F does not exist in L.") An equivalence between "F is" and "F is in L" is logically justified only where L is the only subject that is capable of being F--thus Aristotle accepts the equivalence between "[there] is [an] eclipse" and "[an] eclipse is in the moon." But even where there is no logical equivalence, there may be an equivalence in the meaning conveyed by "F is" and "F is in L" in some discourse contexts; and this may help to explain some oddities in Δ7.

To return to Δ7. It is clear that Aristotle's distinction here between being per accidens and being per se cannot be lined up with the distinction between predicative and existential being. He feels free to transform 1-place into 2-place uses of εἶναι and back again in illustrating either of these senses of being.[19] While he is aware that εἶναι has different uses in different syntactic contexts, he is not trying to collect those different uses in Δ7. (There are some uses that he entirely fails to mention, e.g. "potential" uses such as "ἔστι V-infinitive" = "it is possible to V" or "ἔστι S-dative V-infinitive" = "it is possible for S to V.") His interest is not primarily in the verb "to be" but in the things that are. Furthermore, the reason why he is interested in the things that are is that he wants to discover the causes, to the things that are, of the fact that they are, and to do this he needs to distinguish different senses of the fact that they are, whose causes we might seek. For this purpose he does not need to distinguish between causes of the fact that X exists and causes of the fact that Y is Z; as we have seen from Posterior Analytics II, he thinks that causes of either type can be reexpressed as causes of the other type. This does not mean that the distinction between 1-place and 2-place being is simply irrelevant. In setting out the program of seeking the ἀρχαί as causes of being--as Γ1 does--it seems advantageous to describe them as causes of 1-place being (and this is certainly how Γ1 seems to be thinking of them). This would include not only causes to Socrates of the fact that he is, but causes to the whiteness of Socrates of the fact that it is, and causes to white Socrates of the fact that he is; but the ἀρχαί will be found as causes of what is primary, as causes of substances rather than of accidents or substance-accident compounds, and so in fact Aristotle will only need to consider causes to substances of the fact that they are. On the other hand, once we are seeking the cause, to X, of the fact that it is, we may well find it advantageous to transform this into a search for a cause of 2-place being. If Y is the per se ὑποκείμενον of X, we can transform the question "why does X exist" into the question "why is Y X," or, by eliminating redundancies, into a question "why is Y Z" (from "why does white Socrates exist" through "why is Socrates white Socrates" to "why is Socrates white," from "why does the snub exist" through "why is a nose snub" to "why is a nose concave," from "why is there an eclipse" through "why is the moon eclipsed" to "why is the moon deprived of light"). And indeed Metaphysics Z17, relying on Posterior Analytics II, recommends just such a transformation of a search for causes of 1-place being into a search for causes of 2-place being. But this investigation, whether framed in terms of 1-place or of 2-place being, could be carried out in different ways, corresponding to the different senses of being distinguished in Δ7. Some of these ways Aristotle mentions only because he wants to dismiss them; others are more promising.

<div align="center">Being per accidens: Δ7 and E2-3</div>

Aristotle starts with being per accidens, in conformity with his method on unity (Δ6) and sameness (Δ9). Being per accidens will not itself have any scientifically useful causes, but since

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[19]it is worth noting that many medieval readers seem to treat all four senses as if they were senses of 1-place being. the first three senses are often arranged from broadest to strictest: most broadly being as truth, which applies to even to entia rationis such as negations; then real being, including real per accidens beings like white Socrates; then real per se being (then, even more narrowly, substance)

it is always parasitic on being <u>per se</u>, it will lead us on to consider the type of being that does have scientifically useful causes.

> What <u>is</u> is said <u>per accidens</u> and <u>per se</u>: <u>per accidens</u>, in the way that we say that [3] the just [person] <u>is</u> musical and [1] the man [<u>is</u>] musical and [2] the musical [<u>is</u> a] man, speaking in close to the same way as if[20] [we were saying] that the musical [person] housebuilds because it happens [συμβέβηκε] to the housebuilder that he is musical or to the musical [person] that he is a housebuilder (for that this <u>is</u> this signifies that this happens to this). So too in the aforesaid cases: for[21] when we say [1] that the man [<u>is</u>] musical and [2] that the musical [<u>is</u> a] man, or [3] that the white [person is] musical or that the latter [<u>is</u>] white, [this is] in the one case [3] because they both happen to the same thing-that-is,[22] in another case [1] because it happens to the thing-that-is, and [2] that the musical [<u>is</u> a] man because musical happens to him (and in this way even the not-white[23] is said to <u>be</u>, since that to which[24] it happens <u>is</u>.) So the things that are said <u>per accidens</u> to be are so said, either [3] because they both belong [ὑπάρχει] to the same thing-that-is, or [1] because this belongs to a thing-that-is,[25] or [2] because this is what what it is predicated of belongs to. (1017a7-22)

While there are many difficulties in this passage, some things are clear. Aristotle starts from the <u>per accidens</u> application of verbal predicates like "housebuilds," and, by rewriting "the musician housebuilds" as "the musician is a housebuilder," infers that εἶναι, in its 2-place use, can also be applied <u>per accidens</u>. Undoubtedly he thinks it also follows, without his needing to say so, that musical housebuilder has 1-place being <u>per accidens</u>. So far this is what we would expect; what may be surprising is how broad a range of predications he is willing to describe as asserting being <u>per accidens</u>. We expect what I have marked as type [3] predications, like "the white is musical"; also the type [2] predication "the musical is [a] man" is a <u>per accidens</u> predication as described in <u>Posterior Analytics</u> I,22 ("when I say that the white is wood, I mean that that to which it happens to be white is wood, not that the ὑποκείμενον of wood is the white: for it is not the case that, being white or being some white thing, it <u>became</u> wood, so that also it <u>is</u> not wood except <u>per accidens</u>," 83a5-9). However, the type [1] predication "the man is musical" is exactly the type that <u>Posterior Analytics</u> I,22 describes as predication <u>simpliciter</u> and contrasts with being <u>per accidens</u>; and it seems that Δ7 itself will a few lines further down describe predications like "the man is musical" as asserting <u>per se</u> or categorial being (1017a27-30). So why does Aristotle describe it here as asserting being <u>per accidens</u>?

 The answer becomes clearer if we regard the distinction in senses of being as subordinated to an inquiry into the <u>causes</u> of being. We may start with a case like "the musician is a housebuilder," the type of predication that is most clearly <u>per accidens</u>. As Aristotle will argue in E2, this kind of being has no determinate cause. There is a cause of someone's being a musician,

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[20]whether ὥσπερ EJ Bonitz or ὡσπερεὶ A[b] Ross Jaeger makes no difference

[21]reading ἐπὶ τῶν εἰρημένων· τὸν γὰρ ἄνθρωπον with A[b] Ross Jaeger; but EJ Bonitz ἐπὶ τῶν εἰρημένων τὸν ἄνθρωπον is also possible

[22]reading τῷ αὐτῷ ὄντι with A[b] (<u>Translatio Media</u>? William?), against τῷ αὐτῷ EJ (Alex, Asc?) Bonitz Ross Jaeger (if William disagrees with J, this is unusual--check Vuillemin-Diem)

[23]reading τὸ μὴ λευκόν A[b] Bonitz Ross Jaeger against τὸ λευκόν EJ. Alexander clearly has the negative

[24]or "he to whom" if we read ἐκεῖνος EJ (E corrects this to ἐκεῖνο) rather than ἐκεῖνο A[b] Bonitz Ross Jaeger

[25]reading the <u>lectio difficilior</u> ὄντι ἐκεῖνο ὑπάρχει with A[b] (<u>Translatio Media</u>? William? d check) Jaeger rather than ὄντι ἐκείνῳ ὑπάρχει EJ Bonitz Ross (is this right?)

and there is a cause of someone's being a housebuilder, but there is no further cause that explains why these two chains of causality should converge to produce a musician-housebuilder. It simply happens that in this particular case they converge, and the vain search for a cause of this "happening" gives rise to the notion of chance [τύχη] as a cause "unmanifest to human thought, as being something divine and more daimonic" (Physics II,4 196b5-7), a notion which Aristotle carefully deconstructs in his treatment of chance and spontaneity in Physics II,4-6.[26] Because Aristotle thinks that this kind of causal inquiry leads to no science, he wants to distinguish being per accidens at the outset, in order to set it aside and to help sharpen the concepts of the kinds of being that will have scientifically useful causes. It is less clear that this concept of being per accidens should also cover the cases of "the man is musical" and "the musical is a man." But, as Δ7 points out, both of these predications hold good only because one thing "happens" [συμβέβηκε] to another; and such "happening" has no determinate cause. "Accident" or "what happens" [συμβεβηκός] gets its own chapter, Δ30, in explication of Δ7 and in preparation for E2-3. The chapter begins from the Physics II kinds of examples of chance (someone is digging a trench around a plant and hits buried treasure), but extracts from these examples something more general: an accident is "what belongs [ὑπάρχει] to something and is true to say [of it], but neither of necessity nor for the most part" (Δ30 1025a14-15), which includes "the musician is white" and every other case where Y belongs to [an] X but not because it is X (a19-24); "so there is no determinate cause of an accident, but rather what chances [τὸ τυχόν]: and this is indeterminate" (a24-5). (Presumably if X is Y for the most part, then something's being X is a cause of its being Y, but a cause that could be obstructed by other causes.) It is this idea from Physics II which Aristotle will build on in his brief and negative account of the causes of being per accidens in Metaphysics E2-3; and the function of Δ7's discussion of being per accidens, and of Δ30, is just to lead to that negative account, and to focus attention instead on the causes of being per se. A predication like "the man is musical," to the extent that it expresses a conjunction of two things, and to the extent that this conjunction has no determinate causes beyond the causes of each of the two things, will express being per accidens, the kind of being that we are discouraged from investigating. But there is no reason why the same sentence "the man is musical" should not also express being per se, inasmuch as man is the per se ὑποκείμενον of musical, and to this extent it is has a per se cause: since nothing except a human being can be musical (in the relevant sense), the essence what-it-is-to-be-musical, in being a cause of anything's being musical, will also be a cause of a human being's being musical. What is accidental, and has no per se cause, is the conjunction of this essence with a ὑποκείμενον specified in some other way--the particular human being Socrates, or whoever makes "the man is musical" true.

   Aristotle takes up the causal questions about being per accidens in Metaphysics E2-3. The main account is in E2; E3 is formally a digression (to be skipped in a shorter version), a response to an objection to the account of E2.[27] E2 starts by briefly recalling Δ7's four senses of being (1026a33-b2), and then devotes itself to dismissing being per accidens, in the first place by arguing for the thesis that "no ἐπιστήμη, whether practical or productive or theoretical [= the three types distinguished in E1], is concerned with it [sc. what is per accidens]" (1026b4-5), and therefore in particular that wisdom will not be concerned with it. To say that a productive ἐπιστήμη (an art) is not concerned with what is per accidens seems to come to much the same as

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[26]cp. Evans-Prichard Witchcraft, Magic and Oracles among the Azande on why the granary falls at the moment when this man is sitting under it. Aristotle's reason for giving separate treatments of chance and of spontaneity is not that there is any intrinsic difference between them, but simply that some people, wrongly, treat chance as if it were a special more divine causality

[27]clear from the first sentence of E4, picking up from the last sentence of E2

saying that it does not <u>produce</u> what is <u>per accidens</u>: the art of housebuilding (or the housebuilder, acting <u>qua</u> housebuilder) makes a house, and perhaps it makes a wooden house or a two-story house, but it does not also produce all the things which hold <u>per accidens</u> of the house, e.g. that it is "pleasant to some, harmful to others, beneficial to yet others, and other than almost everything" (1026b7-9): rather, it just produces the house, and these are merely byproducts which also exist when the house exists. And this example from productive ἐπιστήμη is supposed to lead to a deeper and more general reflection. The things that hold <u>per accidens</u> of the house are not produced--they are not produced by the art, and what else would they be produced by?--and this is equivalent to saying that they do not come-to-be, since what is ποίησις from the point of view of the agent is γένεσις from the point of view of the patient. And the fact that beings <u>per accidens</u> neither exist eternally nor come-to-be, but <u>are not</u> and then <u>are</u> without coming-to-be, is diagnostic of the deeper fact that they are "close to not-being" (1026b21): they do not properly come-to-be, because they never properly <u>are</u>.[28] These <u>per accidens</u> things, and specifically the fact that they <u>are</u> and <u>are not</u> without coming-to-be, notoriously give rise to sophisms, and Aristotle suggests that being <u>per accidens</u> is the natural object of sophistic rather than of any genuine ἐπιστήμη: this is how he reinterprets Plato's saying in the <u>Sophist</u> that the sophist deals in not-being (1026b14-21, and cf. Iβ4c above).[29] We might think that this is unfair: of course the art of housebuilding is not concerned with the fact that a house is "other than almost everything," but this is because otherness is a <u>per se</u> attribute not of houses but of something more general, namely beings: so instead of concluding that this otherness is the object of no science, we should conclude that it is the object of the science of being <u>qua</u> being. However, Aristotle is perfectly willing to agree that otherness will be treated in the science of being <u>qua</u> being (it will, in fact, be treated in Iota). But to the extent that it is treated in the science of being, it is not a being <u>per accidens</u>: it will be treated, not as an attribute of its <u>per accidens</u> ὑποκείμενον, house, but as an attribute of its <u>per se</u> ὑποκείμενον, being. Under that description it is not a being <u>per accidens</u>, and that is the right description under which to look for its causes.

    This self-contained and completely negative treatment of being <u>per accidens</u> might seem to be all that Aristotle needs. But in fact, having said that being <u>per accidens</u> is close to not-being, he

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[28]on the correlativity of ποίησις and γένεσις compare Sean Kelsey's paper. note Aristotle does <u>not</u> think (despite what he seems to say at E2 1026b22-4) that it is only things which exist <u>per accidens</u> that <u>are</u> and <u>are not</u> without coming-to-be, since this is also the case for souls and more generally forms. however, in the case of things that exist <u>per accidens</u>, the fact that they do not properly come-to-be is diagnostic of the fact that they do not properly exist. somewhere (where?) I should collect all of the places where Aristotle talks about things that <u>are</u> and <u>are not</u> without coming-to-be, and all the things that he applies this to. Aristotle pretty clearly did not make up this idea, but is intervening in an ongoing discussion … an example in the <u>De Sensu</u> on acts of sensation; B#12 on surfaces; Z8, Z15 etc. on forms

[29]I <u>hope</u> I have a full treatment of all this in Iβ4c on sophistic; if not, something will have to be added. in E2 1026b14ff on the sophists: (i) note that <u>Topics</u> I,11 104b24-7 contains an almost open admission that the sophists solved these sophisms as well as posing them (most people will agree that if something is and has not always been, it came-to-be; they are refuted; solve by denying the universal premise, at the cost of paradox); (ii) something seems likely to be wrong with the text at b19-20; De Rijk proposes to interchange μουσικός and γραμματικός twice; perhaps we should just emend ὥστ ᾽ εἰ to ὥστε?--note that at E1 1025b25 ὥστε εἰ, A^bM have just ὥστε. (iii) Ross' comments here are very strange. on the musical/grammatical argument he <u>might</u> be right, although there could be many relevant arguments here {note by the way that the argt ps-Alexander suggests here, together with the argt Simplicius attributes to the Megarians to show that the Socrates is separated from himself (<u>In Physica</u> 120,12-17?--I've cited this elsewhere, maybe on Z6), can help to show there was a Megarian/sophistic use of the sophism at the beginning of Z6, as well as the obvious Platonic use to show that things are not the same as their essences}; but Ross' reconstruction (not ps-Alexander; something like this in someone on SE c22?) of the Coriscus/musical Coriscus argt is ridiculous, and on the argt at b19-20 is not much better

adds, "nonetheless, it should also be said about accident, so far as it admits of it, what is its nature and on account of what cause it exists: for perhaps at the same time it will also become clear why there is no science of it" (1026b24-7). Aristotle is here echoing, perhaps parodying, the sequence laid down in <u>Posterior Analytics</u> II for proceeding to the science of some (non-primitive) object: having established <u>that</u> X exists, we should next ask <u>why</u> X exists, and in learning <u>why</u> X is (it thunders because of fire being extinguished in the clouds) we will also discover the scientific definition of <u>what</u> X is (thunder is noise of fire being extinguished in the clouds). But in the present case, instead of leading to a science of X, this process will lead us to understand why there is no science of X. "The ἀρχή and cause of the fact that accident exists" (1026b30-31) is that while some things are necessarily, and therefore are always, most things are only for the most part; just because these things are only for the most part, there are other things (notably the contraries of these) which are neither always nor for the most part; and it is these that are <u>per accidens</u> (1026b31-1027a28, esp. 1026b31-3 and 1027a8-11). Here as in Δ7 the discussion of "things that are" is neutral between 1-place being (X <u>exists</u> always, or for the most part, or not even for the most part) and 2-place being (Y <u>is</u> Z always, or for the most part, or not even for the most part), and doubtless Aristotle assumes that we can transform one type of expression into the other. While what Aristotle says here is brief, he is able to be brief here because he can rely on things he has established before. Thus his account of necessity ("necessity, not in the sense of the violent [βίαιον], but what is so called through not being able to be otherwise [τῷ μὴ ἐνδέχεσθαι ἄλλως]," 1026b18-9) clearly relies on Δ5 (τὸ βίαιον 1015a26, τὸ μὴ ἐνδεχόμενον ἄλλως ἔχειν 1015a34); his assertion that most things (τὰ πλεῖστα) are only for the most part and not always seems to rely on E1, which had said that physics considers the οὐσία-in-the-sense-of-λόγος of movable things "for the most part, but not separate" (1025b26-8, but text and interpretation are controversial).[30] And most clearly he is relying on the <u>Physics</u> II account of what happens by chance as "neither what is necessary and always nor what is for the most part" (<u>Physics</u> II,5 196b12-13 and repeatedly); <u>Physics</u> II,5 goes on to speak of accident, of chance as a <u>per accidens</u> cause, and of the fluteplayer as the <u>per accidens</u> cause of the house while the housebuilder is its <u>per se</u> cause (esp. 196b23-9, 197a12-21, cp. <u>Metaphysics</u> E2 1026b37-1027a5).[31] In the longer <u>Physics</u> II,4-6 as in the briefer <u>Metaphysics</u> E2, the aim is to debunk any special cause of what happens by chance or accident, and to show that what happens by chance or accident is a mere byproduct of what happens by nature and for the most part. As <u>Physics</u> II argues precisely by eliminating cases of chance, every natural power aims at some determinate end, and it achieves this end for the most part,[32] and the same may be said for the arts; when a natural or rational power fails to achieve its end, or achieves its end in such a way that some byproduct results as well, the case is like that of the "relish-maker aiming at pleasure

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[30]discuss, and coordinate with your account (accounts?) of E1; I am not sure what I think here {in Iγ1a I translated and had some discussion of the text-situation in E1 with ὡς ἐπὶ τὸ πολύ}. Bonitz (followed by Jaeger) takes the text to mean "physics is mostly concerned with form rather than with matter"; Ross "physics deals with forms that are, for the most part, inseparable." but ὡς ἐπὶ τὸ πολύ is such a stereotyped and indeed technical phrase that Bonitz' intepretation seems unlikely; and, against Ross, <u>all</u> of the forms that physics deals with are inseparable (cp. 1025b34ff). note as possibly relevant <u>Physics</u> II,5 197a18-20 "it is right to say that chance is something παράλογος: for λόγος is either of things that always are or of things that are for the most part, and chance is in what comes-to-be besides these." of course the formula of the essence of X always applies to X whenever X exists, but if the formula refers to a δύναμις which will be exercised if nothing obstructs (and any formula of an essence of a sublunar natural thing does refer to such a δύναμις), then it refers to activities which will take place not always but only for the most part
[31]thus the K8 transition from E2-4 to <u>Physics</u> II,5-6 (do I want to say more about this?)
[32]or so Aristotle says; obvious questions about e.g. how often a stone makes it to the center of the universe

[who] produces [ποιεῖ] health for someone,[33] but not in accordance with [the art of] relish-making: for which reason, we say, it was an accident [συνέβη, i.e. it happened, or they came together], and he produces it in a way, but not simpliciter" (Metaphysics E2 1027a3-5). To the extent that a power that aims at X can by accident produce Y, it is per accidens a cause of Y and per accidens produces Y (or, if it is the passive power of matter, becomes Y, cp. 1027a13-15); and if Y is a being per accidens, this is the only kind of cause it has, and there is no further power for Y (cp. 1027a5-7, but note textual trouble). There seem to be several types of case here. If the housebuilder who is also a doctor produces health (1026b37-1027a2), then the health has a per se cause, and indeed its per accidens cause is just its per se cause under another description; and the effect, health, is neither by chance nor a being per accidens. If the relish-maker who is not also a doctor, in exercising the art of relish-making, happens to produce health, then the health does not have a per se cause, although the type "health" has a per se cause in other instances; this health is by chance in the sense of Physics II, but is not a being per accidens. However, in both of these cases some agent does something per accidens, so we have an instance of 2-place being per accidens (the housebuilder or relish-maker is healing), which can be transformed into an instance of 1-place being per accidens (the housebuilder's or relish-maker's act of healing is per accidens, cp. 1026b37-1027a1), and this has no cause except per accidens.

If for some X--say the housebuilder's act of healing--there is no power that produces [ποιεῖ] X except per accidens, then, as we have seen, X also does not come-to-be [οὐ γίγνεται] except per accidens, although X exists and has not always existed. E3, marked as a digression, is responding to an objection against the claim that this can happen. The objection is not explicitly stated, and it might be a dialectical objection to the intelligibility of not-being-and-then-being-without-coming-to-be, but it seems rather to be a causal-scientific objection, that if we trace an effect back only to a non-eternal starting-point, ἀρχή, that does not itself have a cause, there will be no genuine causal explanation of the effect. Aristotle's answer says nothing specifically about beings per accidens: while E2 has claimed that beings per accidens are and are not without coming-to-be, E3 is just defending the claim that some things, or specifically some ἀρχαί, are- and-are-not in this way, and we know from elsewhere that Aristotle thinks this holds not only of beings per accidens but also of forms (Z8) and especially of souls (Physics VIII,6, esp. 258b16-22). His point here is that every non-eternal ἀρχή that is genuinely an ἀρχή, a starting-point for causal explanation, cannot have come-to-be (except per accidens), since if it had it would have been produced by something and would not be the original cause but would simply be transmitting the causality of something prior;[34] and that there must be some non-eternal ἀρχαί, on pain of everything being eternally necessitated. Aristotle's presentation of his argument here is so abridged, and so lacking in context, that disputes about interpretation are likely to persist,[35] but he seems to offering a solution to a causal argument from the necessity of the past to the necessity of the future (as opposed to the logical argument that he solves in De Interpretatione c9): if everything that comes-to-be (or "occurs") is produced either by some cause that came-to- be previously, or by some cause that existed from eternity, then, if we trace back the causal

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[33]with Jaeger's τινι ὑγίειαν. E's τι ὑγιεινόν (accepted by Bonitz and Ross) may be right, but the stemma is against it. incidentally, according to Bonitz a manuscript (of Asclepius) has Jaeger's reading; why doesn't Jaeger note this?

[34]for the idea that an intermediate cause is not genuinely the cause (but merely an instrument or the like) see Physics VIII,5 and Metaphysics α2. note two points with Kelsey, (i) that in saying that X is and is not without coming-to-be, Aristotle need not be saying that it happened instaneously, it's enough if there was no process directed at producing X; (ii) when we say that if the cause X itself had a cause, it would merely be transmitting the causality of that cause, we mean if X has a cause inasmuch as X is a cause: if Socrates causes a house, the mere fact that Sophroniscus begot Socrates does not make him a cause of that house

[35]references to Kelsey and Sorabji

chains far enough, any future object X will have been completely caused by objects that have already come-to-be before the present moment, or that have existed from eternity; and since everything that has already come-to-be, or has existed from eternity, is now necessary, each future object X is also now necessary. Aristotle's solution concedes that everything that comes-to-be is produced by some prior cause, but insists that some things come-to-be only per accidens, and are therefore produced only per accidens; and if X is produced by Y, and Y is produced by Z only per accidens, then Z is not the cause of X (except presumably per accidens), and the argument for the necessity of the future breaks down. The picture can be filled out from Physics VIII: everything that is moved is most properly speaking moved by its first mover, and this first mover must itself be unmoved (Physics VIII,5), and therefore in particular ungenerated. But it does not follow that this first mover must be eternal and eternally in the same state, like the movers of the heavenly bodies: the first mover of a given causal chain can be moved per accidens, and indeed can come-to-be per accidens, and this is the case in particular for the souls of sublunar animals (Physics VIII,6 258b16-22).[36] The eternally constant motions of the heavenly bodies (caused by their eternally constant movers) are still needed to regulate the per accidens coming-to-be of these souls, i.e. the per se coming-to-be of sublunar animals, whose periods of life and gestation and maturation are measured by the periods of the heavenly bodies, and this guarantees that there will be an approximate regularity in all sublunar things; but because sublunar souls are not just transmitting heavenly causality, and can initiate new causal chains (although doubtless every new motion they produce has a per accidens antecedent cause), sublunar things are not entirely controlled by heavenly causes, and are not entirely necessary.[37] Since it was taken as obvious in Metaphysics E2 that most things down here are not necessary, and since the causal argument for necessitarianism will go through if everything that is, but has not existed from eternity, has come-to-be per se and has therefore been produced per se, it follows that some non-eternal things have not come-to-be except per accidens, and this removes the objection to Aristotle's conclusions in E2.

Δ7 on the not-white as being per accidens and the white as being per se

   Another difficulty in Δ7's account of being per accidens turns on its assertion that the not-white has being per accidens. We would expect the not-white man to have being per accidens (this should be equivalent to saying that "the man is not white" expresses being per accidens), but how can something which is said without combination, like the not-white, be said to be per accidens? However, in referring to type [1] being per accidens, exemplified by "the man is musical," Aristotle says that here something is said to be "because it happens/belongs to a/the thing-that-is" (1017a16). In other words, Aristotle is willing to consider "the man is musical," not

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[36]actually, the movers of the non-equatorial heavenly motions, although they are eternal, are not eternally in the same state, but rather are moved per accidens; see IIIβ2 below, which will also have a full discussion of the other issues in Physics VIII. here I will be dogmatic and will not document the evidence for my interpretation of Physics VIII, some of which turns on other texts (e.g. from the On Generation and Corruption and Generation of Animals), which will be cited in IIIβ2

[37]I am not sure whether Aristotle thinks the alternative is merely necessitarianism, or something stronger, e.g. the impossibility of generation or of any non-trivial change. if it were not for the per accidens motions of the movers of the non-equatorial heavenly motions, which lead to the change in the length of daylight between summer and winter, and thus to greater heat in summer, and thus to the approximate cycles of the sublunar elements and of the things generated out of them, plants and animals, the sublunar would be an inert sphere of earth surrounded by an inert sphere of water surrounded by an inert sphere of air surrounded by a rotating but otherwise inert sphere of fire, with no elemental transformations and no generation of composites. this does not, however, require per accidens generation, which happens only with the souls of sublunar animals

just as asserting the existence of the musical man or of the musicality of the man, but also as asserting the existence of the musical or of musicality. The sentence "X is Y" may be asserting several things at once, but one of them is the existence of its predicate (not the existence of its subject): this is because the existential "Y[-ness] exists" is taken as equivalent to the locative-existential "Y[-ness] is in X." (When Aristotle says that a type [3] per accidens predication "X is Y" like "the white [person] is musical" asserts being "because they both happen/belong to the same thing-that-is" (1017a16-17, a20-21), apparently both the subject X and the predicate Y are asserted to be--more precisely, the combination XY, "white musical [person]," is asserted to be--but this is only because, ontologically, both X and Y are predicates of some other underlying subject Z, say Socrates.) So the kind of being that something has because it happens to something that exists, i.e. to some other underlying subject, is being per accidens. This kind of being would apply to the white, and Aristotle is right to point out that it would equally apply to the not-white. This sense of being per accidens seems close to the sense of Posterior Analytics I,4, where the walking, which "being something else, is walking," has being per accidens. However, in Posterior Analytics I,4, an accident like the white has being only per accidens, and only substances have being per se; whereas here in Δ7 not only substance but also accidents like the white have being per se (although the white also has being per accidens), and only negations like the not-white and compounds like white Socrates fail to have being per se. Why is Δ7 so liberally extending being per se to beings in all of the categories?

Once again, the answer is that Δ7's account of the senses of being is subordinated to an account of the causes of being. Something will have being per se if it has a per se cause of being, that is, an essence. Man has an essence (say, biped animal); white man has no essence, no per se cause of being. The white in one sense has a per se cause of being, and in another sense does not; that is, "the white is" can be taken in one sense in which it has a per se cause, and in another sense in which it does not. For the white to be is for something to be white, and in one sense there is a per se cause of something's being white and in another sense there is not. There is no determinate cause of this subject's being white: this subject and the predicate whiteness simply happen to be conjoined, and there is no determinate cause of their being conjoined, just as there is no determinate cause of the musician's being white, i.e., no determinate reason why the causes of being musical and the causes of being white should coincide in a single subject. On the other hand, there are determinate causes of being musical, and determinate causes of being white. And so there are determinate causes, to this subject, of its being white, as long as we look only for causes of the predicate, and not for causes of the union of the predicate with the subject. "The man is healthy" expresses being per se, namely the being per se of health, insofar as it expresses not the presence [ὑπάρχειν] of health to a human being, nor the presence of health to this subject, but simply the presence of health, the formal cause of which is given by specifying the essence of health. But "the man is not healthy" can express the being per accidens of not-healthy-man (the absence of health from a human being), or the being per accidens of non-health (the absence of health from this subject), but not the being per se of non-health--there is no being per se of non-health, and there is no formal cause of the absence of health, although there may be formal causes of disease, or rather, formal causes of particular diseases.

Δ7's positive account of being per se

Given this understanding of the difference between being per accidens and being per se, Δ7's account of being per se is straightforward enough:

However many things are signified by the figures of predication [τὰ σχήματα τῆς κατηγορίας = categories] are said to be per se: for in however many ways they [= the figures of predication] are said, in so many ways do they signify being [τὸ εἶναι]. So, since some predicates signify what [the subject] is [τί ἐστι σημαίνει], others what it is like [ποιόν], others how much, others πρός τι, others action or passion, and others where or when, being [τὸ εἶναι] signifies the same as each of these: for there is no difference between "[a] man is healthy [ἄνθρωπος ὑγιαίνων ἐστίν]" and "[a] man is-healthy [ἄνθρωπος ὑγιαίνει]" or between "[a] man is walking" or "cutting" and "[a] man walks" or "cuts," and likewise in the other cases. (1017a22-30, cited above)

The things that are are the things that some subject is, and things are said to be in as many ways as a subject is said to be the many things that are predicated of it. So Aristotle analyzes the senses of being by analyzing predication. The primary sense of being is the being of substances, and even here Aristotle analyzes their 1-place being by transforming it into 2-place predicative being: a term signifies a substance if it signifies what some subject (essentially) is, and so the substances are the substances of things, what things (essentially) are. Now having said that the things that are (1-place) are the things that some subject is (2-place), and having said that substances are the τί ἐστι of some subject, we might seem to have implied that substances are the only things that are. But Aristotle replies that "is" (2-place) is said in many ways: when I say that a substance is the τί ἐστι of some subject, I am using predicative ἐστι in its strongest sense, for essential predication; and there are other weaker senses of predicative ἐστι. This is not quite as obvious or uncontroversial as it might sound. It is uncontroversial that there are non-essential kinds of predication, for instance in "[a] man walks," but that sentence does not contain a form of εἶναι, and it is not quite so obvious that predicative εἶναι can also express non-essential predication. Aristotle says that we can convert any predicative sentence into a predicative sentence with εἶναι and a nominal complement: "there is no difference between '[a] man is healthy [ἄνθρωπος ὑγιαίνων ἐστίν]' and '[a] man is-healthy [ἄνθρωπος ὑγιαίνει]' or between '[a] man is walking' or 'cutting' and '[a] man walks' or 'cuts,' and likewise in the other cases." This would be accepted by most philosophers, but not by Antisthenes, who "thought that nothing can be said except by its proper λόγος, one λόγος for one thing" (Δ29 1024b32-3--Aristotle responds by saying that Socrates is in a way the same as musical Socrates, so that the λόγος of musical Socrates can be said of Socrates as well); also not by the philosophers discussed in Physics I,2 who refused to say that the man is white: "some, like Lycophron, took away 'ἐστίν' [i.e. said ὁ ἄνθρωπος λευκός, without ἔστι], and others changed the expression around, saying not that the man is white but that he whitens [λελεύκωται], not that he is walking but that he walks, so that they should not, by attaching 'ἐστί', make the one to be many [since they supposed] that unity or being is said in only one way" (185b27-32, mostly cited in Iβ4 above). These philosophers are forced to deny that Socrates is white because they think that ἔστι always signifies identity and is therefore transitive, so that if Socrates is white and Socrates is musical, white and musical will be the same thing, or the one thing Socrates will be the two things white and musical (Δ6 and Δ9 drawing distinctions that allow us to resolve these difficulties). If, against these philosophers, we maintain the ordinary assertion that Socrates is white, or the ordinary equivalence between "Socrates walks" and "Socrates is walking," then we must agree that predicative being is said in many ways, sometimes signifying identity (or essential predication) and sometimes signifying something weaker, such as what the subject is like or what the subject is doing.[38]

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[38]make sure all of this is taken into account in your discussion of the sophism at the beginning of Z6 in IIγ1a

Thus by defending ordinary language against people like Antisthenes and Lycophron, Aristotle seeks to establish that predicative being is said in many ways, and therefore also that existential being is said in many ways. Does this procedure involve a "reduction" of 1-place being to 2-place being? That would be an oversimplification. If F is a non-substance, then we can in a sense reduce the existence of F to an instance of 2-place being: the white exists iff some substance exists and is white, and [a] whiteness exists iff some substance exists and is (not whiteness but) white. However, this reduction will not have eliminated 1-place being, but will only have replaced the 1-place being of an accident with the 1-place being of a substance and the 2-place being that predicates the accident of the substance.[39] The case is different if F is a substance. Here too, if F is a <u>material</u> substance, F exists iff some matter exists and is F. But this equivalence is not a "reduction," since Aristotle thinks that the matter of the substance F is ontologically parasitic on the substance F, rather than <u>vice versa</u>. Nonetheless, this equivalence can be useful in looking for the cause to F of the fact that it is, since (as noted above) it is easier to discover causes of 2-place being than of 1-place being. Just as we can transform the question of the cause of 1-place being to a non-substance, "why is there an eclipse," into a question of a cause of 2-place being, "why is the moon eclipsed" or "why is the moon deprived of light," so we can transform "why is there a house" into "why are these. e.g. bricks and stones, a house," or "why is there [a] man" into "why is thus-and-such an animal a man"; and this is what Aristotle recommends in Z17 and H2-3 (discussed in IIε below).

It is particularly important to be clear about the transformations that Aristotle accepts and uses between 1-place and 2-place being, because G.E.L. Owen in an influential article, "Aristotle on the Snares of Ontology," read H2 as reducing 1-place being to 2-place being in a quite different way, so that "F is" would be short for "F is G" for some value of G: as Owen cites H2, "a threshold <u>is</u>, in that it is situated thus and so: 'to be' means its being so situated. And that ice <u>is</u> means that it is solidified in such and such a way" (Owen's translation of H2 1042b26-8, LSD p.264).[40] Now this passage of H2 has several textual and interpretive difficulties, some of which Owen mentions in a footnote. Does οὐδὸς γὰρ ἔστιν at 1042b26 mean "a threshold exists" or "it is a threshold"? Does τὸ κρύσταλλον εἶναι at 1042b27-8 mean "for ice to exist" or "for it to be ice"?[41] Owen says that the parallel a few lines below, "the οὐσία [sc. of each thing] is the cause

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[39]from a modern point of view, we could just say "white exists iff something is white," so that the right-hand side would have no special clause asserting 1-place being; but it will still contain an existential quantifier, so it would be strange to describe it as eliminating existence

[40]it is not easy to sort out what Owen thinks about all this (see Dancy's complaints): in particular, what is G? on p.265 Owen's answer is that "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 Δ7 being <u>per se</u> (which Owen takes to be existential being) has just as many senses as there are categories. but Owen's proof-text in H2, no matter how it is read, completely fails to support this idea: it puts the εἶναι of F not in its genus but in its differentia. however, by p.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 apparently the view is 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 Gary Matthews points out in his BICS article, and as Owen himself seems to recognize on p.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. Lesley Brown, while broadly following Owen's approach to existential and predicative εἶναι, thinks that "F is" is equivalent to "∃G (F is G)", with no predicate favored over any other (except that ampliating or alienating predicates, e.g. "possible" or "non-existent," are ruled out). this is certainly a more plausible version of the story, but Owen's whole approach is wrong

[41]as Owen notes (LSD p.264 n10), Ross in his paraphrase of this passage in his commentary apparently (it's awfully brief) assumes the existential reading, while Ross' translation reflects a predicative meaning. I agree with Owen that

τοῦ εἶναι ἕκαστον" (1043a2-3, cp. a3-4), supports the existential reading, and he has a point. But what is striking is that throughout this passage Aristotle does not care enough to distinguish "F exists" from "something is F"--they are equivalent (which is not the equivalence Owen wants), and the way to find the cause of F's existing is to find the cause of something's being F: that is, the cause, to the matter of F, of its being F. This is the method that Aristotle systematically recommends in H2 for finding the οὐσία of a sensible thing F: first find the appropriate matter of F, and then find the cause of this matter's being F in one instance when it is not F in another instance--that is, find the differentia which constitutes an F, and this will be the οὐσία of F. And since H2 is systematically working out the program for finding the οὐσία of a thing which Z17 had proposed on the basis of Posterior Analytics II, this is exactly how we would expect H2 to proceed. To discover what an eclipse is we ask why there is an eclipse, that is, why the moon is eclipsed, and we conclude that it is because the earth is obstructing the sun's light; to discover what ice is we ask why there is ice, that is, why water is frozen, and we discover that it is because it is solidified (more correctly "it has been condensed," πεπυκνῶσθαι) in such and such a way. But of course for ice to exist, or for water to be ice, is for water to have been condensed in this way, not for ice to have been condensed--as Aristotle says a few lines further on, "if we have to define [a] threshold, we will say [that it is] wood or stone situated thus … if ice, water that has been solidified or condensed [πεπηγός, πεπυκνωμένον] in such a way" (1043a7-10). So H2 interprets "ice exists," not as asserting that ice has some favored predicate (such as being solidified), but as asserting that something is ice--that the appropriate matter of ice (water) has the predicate (having been solidified or condensed in this way) that constitutes it as ice.[42]

Owen resorted to some extraordinary measures in trying to deny this. He denies that Aristotle's concept of existence in Δ7 or H2 resembles the modern concept symbolized by "∃x Fx", but he cannot deny that Posterior Analytics II uses such a concept, for instance in discussing the questions "whether a centaur or a god is or is not: I mean 'whether [it] is or is not' simpliciter, not whether [it] is white or not" (II,1 89b32-3, cited above, cited by Owen LSD p.270). So Owen attributes to Aristotle two distinct concepts of existence, "being*" in Δ7 and H2 and "being**" in Posterior Analytics II (LSD pp.270-73; these are both concepts of 1-place, existential being): being* is equivocal across the categories, but being** is probably univocal, although, since poor Aristotle "nowhere distinguishes these two uses of the verb … he is not in a position to say that his analysis of the different predicative senses of 'exist' applies to being*, but not to his present concern [sc. in Posterior Analytics II], being**" (LSD p.271). Owen is thus denying that H2 is applying the Posterior Analytics analysis of existence: his article manages never once to mention Metaphysics Z17, since comparing the texts would make it obvious that H2 is applying Z17 and that Z17 is applying Posterior Analytics II. Indeed, Owen tries his best to discredit Posterior Analytics II altogether: he speaks of its "hesitations over existential statements" (LSD p.271), and says condescendingly that it "draws a formal distinction between the question whether A

we should keep the manuscript τὸ κρύσταλλον εἶναι with Ross rather than emending to the dative τὸ κρυστάλλῳ εἶναι with Bonitz and Jaeger ("with one manuscript of [ps.-]Alexander" says Ross, d check), which would make it a technical "the essence of ice." I also agree with Owen in rejecting, or at any rate in setting aside, Jaeger's supplement τὸ εἶναι <οὐδῷ> τὸ οὕτως αὐτὸ κεῖσθαι σημαίνει in 1042b27 {"suasit Bonitz" says Jaeger--not in his text, in his commentary?}: Jaeger may be right that something needs to be supplied here, but he has no good reason for putting it in the dative rather than the accusative

[42]d cite, here or elsewhere, as allies against Owen and Brown, Crubellier-Pellegrin's comment (roughly: a being is not the thing that is but what something is, as a semblant is not the thing that seems but what something seems to be--is there an English analogue?), and Tugendhat's article. his basic claim is that Aristotle is distinguishing per se from incidental functions of the word "is": its per se function is to assert the existence of F by asserting "S is F," but in the same utterance it also incidentally does something else, namely, to link F with S

exists and the question <u>what A is</u>, and even, at the start of one tangled argument, treats the second question as arising after the first has been settled (89b34-90a1)," although "it amends this later" (at 93a21-33, which does nothing of the kind--it merely says that to know that thunder exists we must know the nominal definition that is [a] noise in the clouds, which we presuppose in seeking the real definition which gives the cause of its existence; the Owen quotes are LSD p.270). Perhaps what moved Owen to all this was the view that an analysis of "F exists" as "∃x Fx" would be unable to preserve the equivocity of being across the categories. But for Aristotle, as we have seen, <u>predicative</u> being is equivocal across the categories (e.g. between "Socrates <u>is</u> white" and "Socrates <u>is</u> walking"), and so if "Fx" and "Gx" assert different senses of predicative being, naturally "∃x Fx" and "∃x Gx" will assert different senses of existential being. And, against Owen's reading of <u>Metaphysics</u> Δ7, Aristotle grounds the diversity of senses of existential <u>per se</u> being in the diversity of senses of predicative <u>per se</u> being (cf. Owen's attempt to explain away "the odd lines 1017a27-30 in <u>Metaphysics</u> V 7," LSD p.269 n14).[43],[44],[45]

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[43]Owen's distinction between being* (Socrates <u>exists</u>) and being** (there <u>are</u> [not] unicorns) is largely taken from Peter Geach, "Form and Existence" and his Aquinas chapter in Anscombe and Geach, <u>Three Philosophers</u>; Geach is mostly trying to save and interpret Thomas Aquinas on the act of being and on God as his own <u>esse</u>, and to show that Thomism is not refuted by Frege's analysis of existence. Geach's distinction between two kinds of being is a version of Thomas' distinction between two senses of being as existence, one which is the being-as-actuality completing the being-as-potentiality which is categorial being, and the other which is being-as-truth. this in turn is part of Thomas' response to Fârâbî's and Averroes' criticisms of theories (Kindi's [following Proclus]--and Avicenna's respectively) on which things other than God exist, not through themselves, but by participating in being (identified with God by Kindi but not by Avicenna). Fârâbî and Averroes distinguish between two senses of (1-place) being, categorial being, which is real but equivocal across the categories and predicates of each thing its own essence (so not a separate being for things in the different categories to participate in), and being-as-truth, which is univocal and non-essential to the things that have it, but is not something really existing outside the mind. if Fârâbî and Averroes are right, neither categorial being nor being-as-truth can be by participation as Kindi and Avicenna want; Kindi's and Avicenna's theory is held to depend on a confusion of these two senses of being, which allows them to combine some features of each of them. Thomas basically accepts Averroes' conclusions on the senses of being, but nonetheless wants to hold on to Avicenna's essence-existence distinction; his solution is to call on another sense of being from Δ7, being-as-actuality, and to concede that being-as-truth is non-real and that categorial being is essential, but to assert that the essence is of itself a potentiality, whose actuality is a real equivocal non-essential existence. (as far as I have been able to find, Avicenna never describes existence as the actuality or activity [fi'l] of the essence: that seems to be Thomas' innovation). Thomas' interpretation of Δ7 is very dubious: the potentiality which being-as-actuality completes in Δ7 is something like the stone in which Hermes is potentially present, not a preexistent essence of the Hermes. but what Thomas takes over from Fârâbî and Averroes is also dubious, namely the identification of existence as analyzed in <u>Posterior Analytics</u> II with being-as-truth as described in Δ7. according to E4, being-as-truth has no external causes, while <u>Posterior Analytics</u> II is emphatic that the cause of the thing's existence is its essence--in fact, existence as described in <u>Posterior Analytics</u> II is <u>per se</u> or categorial being as described in Δ7. much of what Geach and Owen say about their two senses of being-as-existence, and their downplaying of the <u>Posterior Analytics</u> on existence, seems to be a hangover ultimately from Fârâbî, and to be liable to the same criticisms as his account. {but note that for Fârâbî-Averroes-Thomas, what has being in the weaker sense but not the stronger is e.g. a negation, whereas for Geach and Owen it's e.g. Arrowby who is no more but who still falls under the scope of the existential quantifier; Geach mangles Thomas on this}

[44]some loose ends: note Λ6 on whether motion will be, <u>De Interpretatione</u> c9 on whether a sea-battle will be: the right paraphrases are "something will move something, some people will fight a battle at sea," not "motion will be something, a sea-battle will be something" … also (perhaps develop at more length--or do I do this elsewhere?): show how the <u>Physics</u> I analysis of γίγνεσθαι ἁπλῶς reflects the analysis of "F exists" as "∃x Fx" rather than Owen's or Brown's analysis (now esp. relevant against Burnyeat's claim of the contrary in his Socrates and money article) … also perhaps add into the text note agreeing with Owen that "the F is" = "the F is F"; but that is equivalent to "the thing which is F is F" = "the appropriate subject of F has the predicate that constitutes it as F"; Z17 notes the sterility of asking "is white man white man" or "is man man," but these can be rewritten as "is the man white" or "is the animal a biped" or the like … this may help avoid misunderstandings in talking about being-as-truth, since Aristotle will say that the not-white is because it is not-white

Why does Aristotle mention being as truth?

We might think that Aristotle, after leading us up from being <u>per accidens</u> to being <u>per se</u>, and dividing being <u>per se</u> into its different senses in the different categories, would have said enough about the senses of being. After all, how can there be a sense of being which is neither <u>per accidens</u> nor <u>per se</u>? Instead, he adds first a brief account of being as truth (1017a31-5), and then an account of being as actuality and potentiality (1017a35-b9). The account of actuality and potentiality will be very important for the subsequent argument of the <u>Metaphysics</u>. It is much less clear why the account of being as truth is needed in Δ7, or what the isolated chapters E4 and Θ10 on truth (and Δ29 on falsehood) are supposed to contribute to the <u>Metaphysics</u>. Like the discussion of being <u>per accidens</u>, the discussion of being as truth seems to contribute chiefly by giving a sharper conception by contrast of <u>per se</u> or categorial being. But to see how this works we have to tease out some important details from what Aristotle says about being as truth, and about not-being as falsehood.

Δ7 says: "being [εἶναι] and 'is' also signify that [something is] true, and not-being that [it is] not true but false, equally in affirmations and in denials, e.g. that Socrates <u>is</u> musical [ἔστι Σωκράτης μουσικός] because this is true, or that Socrates <u>is</u> not white [ἔστι Σωκράτης οὐ λευκός], because that is true; whereas the diagonal <u>is not</u> commensurable [οὐκ ἔστιν ἡ διάμετρος σύμμετρος],[46] because this is false" (1017a31-5). This is short enough that it leaves open many interpretive possibilities, and it is not immediately clear how the being-as-truth asserted in "Socrates is musical" differs from the being-<u>per-se</u> asserted in "the man is healthy" (1017a28). But one point that emerges strongly from Aristotle's account of being-as-truth is that he wants it to apply "equally in affirmations and in denials," whereas a sentence "S is F" asserts being <u>per se</u> only if F falls under one of the categories, and so not if the predicate is a negation.[47] Aristotle imposes a regimented and unnatural word-order on his sample sentences precisely to handle the case of denials: by transposing ἔστι to the head of the sentence, we come to see that the negative sentence "X is not Y" asserts not only a not-being ("it <u>is not</u> the case that X is Y") but also a being ("it <u>is</u> the case that X is not Y"), whereas if we had left the sentence in a more natural word-order we might well think that "X is not Y" does not contain a form of εἶναι except one standing under a negation-sign.

We can try to get clearer on what Aristotle means by being-as-truth by asking what kinds of things being in this sense applies to. Is it only "is" in 2-place uses that can be (moved to the head of the sentence and) read as asserting being-as-truth, or does being-as-truth, like being <u>per se</u> and being <u>per accidens</u>, apply indifferently in 1-place and 2-place contexts? Is what is true always a mental or linguistic item, like the sentence or utterance "Socrates is white" or the thought it expresses, or can it also be a mind-independent object? And, if the latter, what sort of object--e.g. would whiteness simply be <u>true of</u> Socrates, or does the sentence signify some further object,

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[45]on all these points I've got a fair amount of further argument, and a lot of bibliography, in the document "Iγ1cnotes", some of which should be pasted into the footnotes; probably my whole account here should be expanded to take fuller note of some of the controversies, although the points made above about Geach, Owen, Brown and Tugendhat are maybe the crucial ones

[46]reading σύμμετρος Bonitz Jaeger Ross (said to be presupposed by Alexander, d check, anyway obviously necessary) against all manuscripts ἀσύμμετρος.

[47]Likewise, the 1-place assertion "F is" will assert being <u>per se</u> only if F falls under one of the categories, and so not if F is a negation. Aristotle does say at 1017a18-19 that we can say "the not-white is" (apparently 1-place) asserting being <u>per accidens</u>, so both being <u>per accidens</u> and being as truth can be asserted of negations. I will come back to how these kinds of being differ.

something like τὸ Σωκράτην εἶναι λευκόν or τὸ Σωκράτη εἶναι λευκόν, which would be true if the sentence is true?

Unfortunately, at least verbally Aristotle seems to speak on both sides of these questions. E4 sounds decisive: "falsehood and truth are not in the things [πράγματα], as if the good were true and the bad were straightway false, but rather in thought [διάνοια], and about simples and essences [τὰ ἁπλᾶ καὶ τὰ τί ἐστιν] not even in thought" (1027b25-8), an affirmative judgment being true if the things are composed in reality as they are in thought, and a negative judgment being true if the things are divided in reality as they are in thought. However, Δ29, Aristotle's most extensive discussion of falsehood (a full Bekker column), starts with a discussion of false πράγματα (first things which are not, then things which are but give rise to a false appearance, i.e. an appearance of what is not), and then says that false λόγοι are false derivatively, because they are of things that are not. Still, it remains constant between Δ29 and E4 that there are no false simple πράγματα: Δ29 is willing to allow πράγματα to be false (otherwise than by giving rise to false appearances) only because it admits propositionally structured objects, named by accusative-infinitive phrases, which are false either "through not being composed," i.e. when the subject-πρᾶγμα and the predicate-πρᾶγμα are not conjoined in reality, or "through being incapable of being composed," when there is a contradiction between the subject-πρᾶγμα and the predicate-πρᾶγμα (1024b17-21). It seems possible that non-propositional πράγματα might also be false, as long as they are somehow composite, so that e.g. white Socrates might not be, as being false, if whiteness is not combined with Socrates in reality. A predicate might also be false of a subject, through not being combined with that subject; Aristotle gives an example where the predicate is a λόγος and the subject is a πρᾶγμα (Δ29 1024b26-8), but presumably this could also happen where they are both πράγματα. Now if simples, whether πράγματα or thoughts or linguistic items, cannot be false, we might think that they also cannot be true, and indeed this is what E4 1027b25-8, quoted above, seems to say (so too Categories c10 13b10-11). Metaphysics Θ10, however, insists that truth is said not only of composites (truth "in the πράγματα, [consists in] being composed or divided" in accordance with an affirmative or negative judgment, 1051b1-5),[48] but also of simples or incomposites [ἀσύνθετα], which cannot be true by being composed. Aristotle starts to say that "as truth is not the same in these things [as in composites], but something is true or false ..." (1051b22-3), but then he corrects himself: there is truth but not falsehood in incomposites. "Laying hold of them [θιγεῖν] and saying them [φάναι] is true (saying is not the same thing as affirmation [κατάφασις]), and ignorance [ἀγνοεῖν] is not laying hold of them" (b24-5). So while simple ignorance about these things is possible, opinion is not, and thus error is not; either you are in touch with them, and there is no scope for falsehood, or you are not in touch with them and so cannot think any false thoughts that would be about them. Aristotle's claim is presumably that truth or falsehood in judgments or utterances would not be possible unless there were more basic "incomposite" mental and linguistic items that can only be true and not false. And this is a familiar solution to a familiar post-Parmenidean problem. How can there be falsehood, if there is no thinking or saying what is not, i.e. if thinking or speaking of what is not simply fails to refer? Answer: for falsehood to be possible, the simple terms must refer, and so must be of things that are, but the complex thought or utterance may combine the terms in a way that their referents are not combined, so that as a whole it is not of something that is. Falsehood, as opposed to ignorance, is possible only of things that somehow both are and are not, and this is possible only through composition.

Arisotle wants to bring out that the sense of being, whether for composites or for simples, that emerges from these reflections applies to negative mental and linguistic items and the

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[48]or read EJ τὸ συγκεῖσθαι at 1051b2 rather than A^b Bonitz Ross Jaeger τῷ συγκεῖσθαι? the point is the same

corresponding πράγματα just as much as to affirmative ones. There is no more being-as-truth when S is F than when S is not-F: there is truth equally when there is composition both in thought and in reality, or when there is division both in thought and in reality. So too with 1-place being-as-truth. Λ1 says that, in a sufficiently weak sense, we say that even "the not-white and the not-straight" are, "e.g. it is not white" (1069a23-4); similarly, Γ2 says that the different things that are said to be each stand in some relation to substance, some by being qualities or the like of substances, but others by being privations or negations of substances or qualities or the like, "for which reason we say that even not-being is not-being" (1003b6-10). The kind of being that is here asserted of the not-white or of not-being as such is not simply being per accidens, but it also cannot be being per se as divided into the categories. The only possibility is being-as- truth; and this is apparently also the only sense Aristotle recognizes in which "S is not white" contains an εἶναι not falling under a negation-sign. And the fact that a true sentence can be formed with "not white" as subject or predicate apparently implies that the simple πρᾶγμα, the not white, also has being-as-truth. It is noteworthy that medieval Arabic and Latin philosophers take being-as-truth, and indeed all of the senses of being distinguished in Δ7, as primarily senses of 1-place being; they take being-as-truth to be the broadest sense of 1-place being, applying to "beings of reason" such as negations and privations (and "relations of reason" such as Socrates' knownness by Plato, which is nothing real in Socrates) as well as to real beings; being per accidens is narrower, applying to all real beings, both beings per se like Socrates and whiteness and beings per accidens like white Socrates; being per se is yet narrower, applying only to beings in the categories, like Socrates and whiteness but not white Socrates; there would be a yet stricter sense that applies only to substances.[49]

When Aristotle says that "we" say that the not-white, or not-being, is, he is not simply reporting a fact of ordinary language, or a conclusion that philosophers in general might draw. "We" are, also and especially, we Platonists; Aristotle is implicitly claiming that Plato's abstract [λογικόν, cf. Λ1 1069a26-30], dialectical and non-causal way of understanding being leads him to a conception of being so broad and so weak that it applies even to the not-white, and even to not-being as such. And Aristotle has texts to support him. The fifth hypothesis of the Parmenides argues that a one-which-is-not "must somehow participate in being" (161e3: Plato's word for "being" here is actually "οὐσία"), because we speak truly (literally "speak true things") in saying that it is not, "and since we say that we are speaking true things, we must say that we are also speaking things which are" (161e7-162a1). Since "ἔστιν ... τὸ ἓν οὐκ ὄν" (162a1-2; Plato preposes the verb ἔστιν just as Aristotle does in the Δ7 discussion of being-as-truth, for the same reason, to make it clear that the verb does not stand under the negation-sign), Plato concludes that this one, and also not-being as such (162a4-b4), must have being; and the text amply justifies Aristotle in referring to this kind of being as "being as truth." And, continuing farther down the same path, the Sophist seems to conclude that positive beings do not have being in any stronger sense than negations or than not-being as such. "Is the beautiful more among beings for us, and the not-beautiful less? No [more and no less]" (257e9-11); and likewise "not-being ... does not fall short of any of the others in being [οὐσία]" (258b7-10), 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" (258b11-c4). For Aristotle all this is a mistake: Sophistical Refutations c25 describes an inference from "not-being is something that is

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[49]references (say Fârâbî and Thomas). do they say how actual and potential relate to these senses? simply orthogonal, qualifying any of these senses of being? also note, picking up the previous note, on two senses of "the not-white is"

not [τὸ μὴ ὄν ... ἔστι γέ τι μὴ ὄν]"[50] to "not-being is" as turning on a fallacious step from "being something" to "being" simpliciter (180a32-8; cp. SE c5 166b37-167a2). Aristotle would presumably be willing to make a number of concessions here. Presumably it is legitimate to infer from "S is F" to "S is" when the predicate is positive and non-ampliating and there is no other ampliating circumstance.[51] Presumably we can infer from "the not-white [thing] is yellow" to "the not-white is," but this will give us only being per accidens (the not-white is, because something to which it belongs, namely the yellow or some particular yellow thing, is). We could conclude in the same way that not-being is, if by "not-being" we mean only "what is not X" for some value of X (which is one thing that Plato means by "not-being" in the Sophist), but again this would conclude only to being per accidens. And, finally, Aristotle thinks it is legitimate to say that not-being is, and not merely per accidens, if we take "is" in the broadest and weakest sense, being-as-truth. His objection is to Plato's failure to distinguish this sense from the stronger sense of being that applies only to positive things.

The reason why it is so important for Aristotle to distinguish these senses of being is, once again, the causal project of the Metaphysics. E4 argues that since truth and falsehood consist in a composition or division in thought, the cause of being-as-truth is something in the mind, and does not lead to any further beings; and it uses this argument to justify dropping being-as-truth from the further argument of the Metaphysics. But unless we clearly distinguish being in the stronger senses from being-as-truth, we will not be able to pursue their causes effectively either.

What Aristotle says in rejecting a pursuit of causes of being-as-truth sounds exaggerated. "Since combination or division is in thought and not in the things, and what is in this way is different from [what is] in the primary way[52] (for thought connects or divides what-it-is or that it is such or so-much or whatever else it may be), let what is ... as true be dismissed: for ... [its] cause is some affection of thought, and [it] is about the remaining kind of thing-that-is and [it does] not reveal the existence of any further nature of thing-that-is [οὐκ ἔξω δηλοῦσιν οὖσάν τινα φύσιν τοῦ ὄντος]" (E4 1027b29-1028a2, leaving out the interlaced dismissal of being per accidens).[53] There are two difficulties. First, combination may be in the things rather than in thought, as in Δ29's examples of πράγματα named by accusative-infinitive phrases like τὸ σὲ καθῆσθαι. Second, even if being-as-truth is only in thought, it seems too strong to say that its cause is only in thought: surely the cause, to my thought that you are sitting, of its being true, is precisely that you are sitting, which is in the πράγματα and not merely in thought. However, we

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[50]the Revised Oxford has "[what is not] is something, despite its not being". Dorion's "[le non-être] est bien quelque chose qui n'est pas" seems to me clearly right

[51]maybe note on "Homer is a poet" and surrounding discussion at the end of De Interpretatione c11; the example there of δοξαστόν (as an ampliating or even alienating predicate) connects it with SE c5. I agree with some of Lesley Brown's points on this in her article in the Everson volume

[52]a fair number of manuscript issues here, including ἢ διαίρεσις or καὶ ἡ διαίρεσις at 1027b30 (not esp. important), somewhat more serious issue τῶν κυρίως or τῶν κυρίων b31 (A^b seems to preserve the lectio difficilior); I don't really understand why the second ὄν in b31 is ὄν rather than ἐστιν. query: do I have a consistent policy for translating κυρίως (primary? principal? chief? main?) and should I try to impose one?

[53]ἔξω must mean "over and above the things in the categories from which we started," not "external to the mind," since this applies not only to being-as-truth but also to being per accidens. (so apparently Ross' translation, but see his note w/ ref to Natorp). the K8 parallel τὸ ἔξω ὂν καὶ χωριστόν (1065a24) does mean external to the mind (a perfectly possible meaning of ἔξω in Greek philosophy), but K8 applies this only to being-as-truth and not to being per accidens. note also that K8 says only that being-as-truth is an affection of thought, not that its cause is, which is more moderate and plausible (could it be right as against E4? more likely a watering down). (Bonitz says that being as truth and per accidens depend on being in the primary sense and "do not even have existence disjoined from it," so taking separate to mean separate from the categories, but he takes "reveal" to mean "by being such a thing" rather than "by having such a thing as its cause"). perhaps note on the history of the inspired mistranslation, through the Arabic, of τὸ λοιπὸν γένος τοῦ ὄντος = esse diminutum. {see Maurer in Mediaeval Studies for 1950}

can see Aristotle's basic point if we think about what he is against. Plato thinks we can infer, from the premiss that the thought or sentence "X is Y" is true, the conclusion that X and Y have being; presumably X and Y would be in some very broad sense causes of truth to the thought "X is Y" (Aristotle says that the πρᾶγμα, a man, is "somehow" the cause of the truth of the sentence "a man exists," Categories c12 14b15-22). In some cases, for Plato, the "causes" X and Y will be "further" things-that-are beyond the categories, notably if one or both of them are negations, "not house" or "not white" or "not being": Plato seems to use this form of inference in the Sophist to establish the existence of previously unsuspected Forms of negatives, and Aristotle apparently thinks that the Sophist is also trying to establish τὸ μὴ ὄν as an ἀρχή that combines with τὸ ὄν to produce the plurality of things-that-are.[54] Aristotle intends to reject these inferences by saying that an affirmative judgment is true if the things are composed in reality as they are composed in thought, and a negative judgment is true if the things are divided in reality as they are divided in thought. So in the judgment "X is Y," if Y is a negation = not-Z, the judgment "X is not Z" is true, not because X is composed in reality with not-Z, but simply because X is divided in reality from Z. There is thus no inference to a not-Z, existing beyond the categories, as a cause of the truth of the judgment.

When Aristotle says that the cause of being-as-truth is "some affection of thought," he presumably means that the cause of the truth of "X is Y" is that the things are compounded or divided in thought as they are compounded or divided in reality. Undoubtedly one could push the causal inquiry further and, taking it for granted that the things are composed or divided in thought in a certain way, ask why they are also composed or divided in reality in that way. Beyond establishing the truth-conditions of "X is Y" (by giving the meanings of the terms and the logical form of the sentence), I could look for the cause, to X, of its being Y. This could be done in different ways, corresponding to different senses of being. For instance, I can look for the causes of per se being by pursuing the causes, to the per se ὑποκείμενον of Y, of its being Y (say the causes, to the moon, of its being eclipsed). This is supposed to lead me to the essence of Y, as expressed in its scientific, causal, definition; but for Aristotle this is quite different from looking for the causes of being-as-truth, which terminates with the nominal definition (an eclipse is a deprivation of light from the moon, by contrast with the scientific definition, deprivation of light from the moon by interposition of the earth between moon and sun). And the further, properly scientific inquiry can succeed only if being Y is in fact a case of per se being. Notably, if Y is a negation, there is no essence of Y and no causal definition of Y, but only a nominal definition of the form "Y is not Z." And this is a sign that, in establishing causes of per se being, causes which might lead to the desired ἀρχαί (say to Platonic Forms, if there are any), we will have to draw on more specific features of the explanandum which distinguish it from negations and other essenceless things-that-are.

Somewhat surprisingly, though, Aristotle does make a positive use in the Metaphysics of the Platonic thesis that thoughts that are capable of being true or false must be directed at composites, and presuppose more fundamental thoughts, directed at simples, which are only capable of being true. E4 says "let what is ... as true be dismissed," but it also promises a future discussion, and this promise is taken up in Θ10, a kind of appendix awkwardly positioned at the end of the Θ1-9 account of δύναμις and ἐνέργεια, and at the end of the whole E2-Θ9 investigation of the causes of being per accidens, as truth, in the categorial senses and as actual and potential. (The promissory note E4 1028b28-9 may be a later insertion in an originally self-contained E4, to justify a later addition of Θ10 to the Metaphysics.) Θ10 is clearly not necessary

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[54]if Metaphysics N2 1089a2-31 is referring to the Sophist (or to discussions coming out of the Sophist), as it looks to be--note that at a19-23 it is said that the not-being in question is the false

for the overall argument of the <u>Metaphysics</u>, but we can also see why Aristotle thought that it would have something to contribute.

Θ10 can be divided into two main sections, 1051a34-b17 on truth and falsehood with respect to composites, and 1051b17-1052a11 on truth and ignorance with respect to incomposites (whose initial thesis was cited above), except that Aristotle returns at the end of the second section (1052a4-11) to consider a special case of truth and falsehood with respect to composites.[55] In each section, Aristotle seems to modulate into a strictly metaphysical application, that is, an application to immaterial substances. At the end of the discussion of truth and falsehood with respect to composites, where truth consists in composition and falsehood in division (or vice versa in the case of negative judgments), Aristotle notes that in some cases the things are capable of being composed at one time and divided at another time, while in other cases they must be eternally composed or eternally divided (1051b9-17, end of the first section); while this may not yet be properly metaphysical, Aristotle applies the point at the end of the chapter, 1052a4-11, to conclude that "about unchanging things there is no deception on account of time, if they are believed to be unchanging" (1052a4-5). That is: if S is eternally unchanging, then "S is F" must be either eternally true or eternally false (Aristotle is presumably setting aside, as <u>per accidens</u> predications, "the eternal substance S is currently being imitated" or "the eternal substance S is currently being contemplated"). Furthermore, as long as a thinker is aware that S is eternally unchanging, he will not believe that "S is F" is true at one time and false at another (a6-7). He may perhaps change his mind about whether S is F as he learns more about S, but whatever he thinks about S he will think to be eternally true about S, and his judgment will be eternally right or eternally wrong. He cannot go wrong about S in the way we often go wrong about changeable things, that is, by observing at some time that S is F and then continuing to believe that S is F, even if S has in fact ceased to be F, so that a judgment that was previously true has become false. Aristotle here seems to be excluding from eternally unchanging beings one Platonic way of being F-and-not-F, namely by being F at one time and not-F at another time. Another Platonic way of being F-and-not-F could still apply, namely being F in one instance and not-F in another instance, as even number is prime in one instance and not-prime in the other instances (a8-9); someone might rightly believe that some even numbers are prime and some even numbers are not-prime, but he might instead overgeneralize from limited observation and judge simply "even number is not-prime," so that this judgment, right in some instances, will be wrong in another. But in the case where S is not only eternally unchanging but also numerically

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[55](1) somewhere in here you should discuss the textual/interpretive issue at 1051b1-2 about τὸ κυριώτατα ὄν: if we keep the text of A[b], it is the true that is being in the most proper sense, which seems to go against what we are told elsewhere, but perhaps it could be said that this is linguistically although not philosophically the strictest sense? the text of A[b] is defended by--who (Kahn?)? note Jaeger's and Ross' proposals. note also that EJ have τὸ κυριώτατα [or κυριώτατον] εἰ [or ἢ or η[7]] ἀληθὲς ἢ ψεῦδος, where this has an advantage over A[b] in that A[b] seems to say that <u>being</u> is true or false, EJ might mean "what is in the primary sense [being or not being, from 1051a34], i.e. whether it is true or false" (but still hard to explain why it's primary) or "whether what <u>is</u> in the primary sense is true or false" (i.e. it's the categorial and actual and potential senses that are primary, but we now ask under what conditions such a being is true or false--but would that exclude negative judgments?). (2) you need to say something, here or elsewhere, about what you think is the status of Θ10 in the <u>Metaphysics</u>. I take it it's by Aristotle and E4 refers forward to it; that could be an insertion in E4 when Θ10 was added, whether by Aristotle or by a later editor. it is possible that Θ10 is simply a scrap left over and added at the end of EZHΘ. on the other hand, although E4 rightly dismisses being-as-truth as an effect whose causes might lead to the ἀρχαί, a further examination of being-as-truth, esp. one-place being-as-truth, does have some light to shed on Λ; it may also be seen to presuppose Θ8 on the ἀρχαί as being eternally in ἐνέργεια with no δύναμις. so even if it's a scrap it's relevant, and there's some reason why Aristotle might have intended it in its present position. the first sentence of Θ10 as we now have it certainly seems to look back to ZH and to Θ1-9

one, this kind of deception too is excluded: the judgment "S is F" must be either true for every time and instance, or false for every time and instance.

However, while this line of thought, in a Platonic spirit, shows that some common sources of error (as Plato diagnoses them) cannot arise in the case of eternally unchanging substances, it is still possible to be eternally wrong about them; Aristotle is clearly talking about truth with respect to composites (albeit eternal composites--on the assumption that there are any), where falsehood is possible, even though no one judgment is capable of both truth and falsehood. However, he wants also to talk about "higher" metaphysical cases where falsehood is not possible at all. In a passage with several difficulties, Aristotle says:

> There is no deception about the τί ἐστι except <u>per accidens</u>; likewise, neither is there deception about incomposite substances. Also all [such substances] are in actuality, not in potentiality, for [if they were in potentiality] they would come-to-be and pass-away, but the thing-that-is itself [τὸ ὂν αὐτό] does not come-to-be or pass-away, for it would come-to-be out-of something [and therefore would have a matter and would be composite, contrary to assumption]. So about those things which are just [what it is] to be something and [just what they are] in actuality [ὅπερ εἶναί τι καὶ ἐνεργείᾳ] there is no deception, but only thinking [νοεῖν] them or not; but we inquire about their τί ἐστι [to find out] whether they are such or not. (1051b25-33)[56]

Aristotle's starting point here is not especially metaphysical, and comes out of familiar reflections on what kinds of deception are and are not possible. I cannot get the essence of horse wrong. Instead of getting the essence of horse right, I can think "horned ruminant quadruped," but then I am not thinking about horses at all, but about cows, and there is no deception but only a not-thinking of horse. I cannot think "horse is cow" (<u>Theaetetus</u> 190c1-3 [reversed]), or, to give an example with individual terms, "Theaetetus is Theodorus" (<u>Theaetetus</u> 192e8-193a3). I can of course go wrong in attaching a qualitative predicate to the subject "horse," or in judging that [a] horse is present here in front of me, but these are not errors about the τί ἐστι of horse. The only way I can go wrong about the τί ἐστι is <u>per accidens</u>, by giving a wrong answer to a question "τί ἐστι X?" when X is presented under an accidental description. Thus I may judge "the person approaching is Theodorus" when the person approaching is in fact Theaetetus, or I may judge "the domestic animal with the longest ears is the horse," when the domestic animal with the longest ears is in fact the donkey; I am thus <u>per accidens</u> committing an error about the τί ἐστι of Theaetetus or of the donkey.[57]

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[56]textual issues: (1) at 1051b27 E has τὰς συνθέτους οὐσίας, J τὰς συνθετὰς οὐσίας, A^b τὰς μὴ συνθετὰς οὐσίας; a later hand in E adds the μή. the negative is clearly needed for the sense. most likely, as I will assume, Aristotle wrote τὰς ἀσυνθέτους οὐσίας (connecting with τὰ ἀσύνθετα at 1051a17, and cp. the στοιχεῖα as ἀσύνθετα at <u>Theaetetus</u> 205c7) and the α-privative dropped out, leaving a mess which different scribes tried to correct in different ways; according to Bonitz, several early printed editions have ἀσυνθέτους; (2) at b28 A^b has ἐνέργειαι rather than EJ ἐνεργείᾳ, which has its attractions, but since the contrast is with δυνάμει it is better to keep ἐνεργείᾳ; (3) at b31 Ross prints ἐνέργειαι rather than codices ἐνεργείᾳ, which also has its attractions (d think about this); (4) at b32 τὸ τί ἐστι ζητεῖται A^b leaves out τί, but it seems clearly necessary

[57]Ross cites ps-Alexander and Bonitz as thinking that the <u>per accidens</u> error is simply the not-thinking of the thing, but I agree with Ross that Aristotle would not call this an error even <u>per accidens</u>. Ross' own account is long and complicated and turns on a systematic confusion between the τί ἐστι of b26 and the incomposite substances of b27ff, both of which Ross calls "forms," although the notion of form seems to have nothing to do with what Aristotle is saying about the τί ἐστι here, and of course he does not think that immaterial substances are forms at all. Ross thinks that although forms are simple relative to composite substances or to propositions, they can be composed out of

Now, however, Aristotle applies these general reflections to the properly metaphysical case of "incomposite substances." These are pure actuality without potentiality, and it is clear that they are not (as Bonitz and Ross think) the forms of sensible things, but eternal substances existing separately from matter, like the "unchanging things" of 1052a4-11; but the "incomposite substances" will be at least <u>prima facie</u> a narrower class, as excluding all forms of composition and not merely change or the capacity for change (in fact, however, Aristotle thinks that all substances without the capacity for change are pure ἐνέργειαι and that this excludes any form of composition). Aristotle refers to any such substance, in deliberately Platonic language, as τὸ ὂν αὐτό. He seems to mean, however, not that it is anything like a Form of being-itself, but rather that it is just <u>the thing that it is</u>: if it is F, then it is just F, rather than F composed with a ὑποκείμενον or with any other attributes. Thus he can equally say of such a substance that it is ὅπερ εἶναί τι--it is just being-F, not predicated of any distinct ὑποκείμενον, as it is also just the ἐνέργεια of being F, not predicated of any distinct δύναμις.[58] Because any such substance is simply a τί ἐστι, there is no room for error about it, but only for grasping or not-grasping. I can commit errors about horses, although not about the τί ἐστι of horse, by wrongly thinking that horseness is instantiated in some given ὑποκείμενον, or by wrongly thinking that horses (or some given horse) have a given accident such as risibility. But an incomposite pure essence can have neither ὑποκείμενα nor accidents, and as long as we recognize it as an incomposite pure essence, we cannot make either of these kinds of mistakes about it. Once we have grasped the essence, there are no further inquiries to be made about it. There is only one sense in which we can inquire about a pure essence and pure ἐνέργεια: if the thing is presented to us under a description which does not express its essence but only relates it to other things, such as "the mover of the daily equatorial motion of the heavens," we can "inquire about [its] τί ἐστι" (1055b32), that is, we can ask "what <u>is</u> the mover of the daily equatorial motion of the heavens," not in the hope of finding an adequate verbal formula for it, but simply "[to find out] whether [it is] such or not" (1055b32-3), that is, to find out whether it is a pure essence and pure ἐνέργεια or not.[59] If it is, then there is properly speaking no further inquiry about it; all we can do is to try to grasp it by grasping the actions on other things through which we became aware of it (it moves and is thought and desired), and by purging from our conception of the agent any description that would imply potentiality or composition or a ὑποκείμενον. This is what Aristotle will do in Λ6-10. The description of being as truth, including truth as applied to incomposites, does not yield any causal program for inquiry into the ἀρχαί. Nonetheless, it can help to describe the process that we will follow in proceeding from composites, where we must discriminate true from false propositions, to grasping their simple ἀρχαί, whose truth we either perceive or fall short of. But this process will have to start, not from a general account of truth, propositional composition, and so on, but from an inquiry into the causes of being in some other and more determinate sense.[60]

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genus and differentia, and so errors can arise in defining them through miscombinations of genus and differentia. this is clever in a desperate way, but has nothing to do with the text

[58]I take εἶναί τι to mean "e.g. being-F"; εἶναι might also be taken as a noun modified by the indefinite pronoun τι, which may be how Ross takes it (the τι does not turn up explicitly in his translation). d think here about ἐνεργείᾳ vs. ἐνέργειαι.

[59]against Ross, who thinks that asking εἰ τοιαῦτά ἐστιν ἢ μή means asking of a given species whether it falls under a given genus or differentia. apart from other objections, this turns on Ross' confusion between incomposite substances and forms (or species) of material substances. Ross notes several other desperate attempts at interpretation. the interpretation I am suggesting seems simple and natural, and corresponds to Aristotle's practice (it also seems to be implied in Fârâbî, for what that's worth)

[60]d incorporate into Iγ1c comment currently in the notes for Iγ2 on the <u>Sophist</u> on truth/falsehood as attributes of the predicate

Being δυνάμει and ἐντελεχείᾳ

Being also signifies what is, on the one hand potentially [δυνάμει], on the other hand actually [ἐντελεχείᾳ], [any] of the aforementioned [kinds of being]: for we say that both what sees potentially [δυνάμει, i.e. what has the sense of sight] and what sees actually [ἐντελεχείᾳ] are seeing, and likewise we say that both what is capable [δυνάμενον] of exercising [χρῆσθαι] knowledge [ἐπιστήμη] and what is exercising it know, and both that to which rest already belongs and what is capable [δυνάμενον] of resting [are] resting. And likewise with substances: for we say that Hermes[61] 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 δυνατόν [= capable of being, or capable of being present in something, or capable of being something], and when it is not yet [so δυνατόν], we must determine elsewhere [= Θ7]. (Δ7 1017a35-b9)[62]

Aristotle's distinction between these two senses of being, being δυνάμει and being ἐντελεχείᾳ or ἐνεργείᾳ, will be structurally crucial for the Metaphysics, since Metaphysics Θ will be devoted to investigating the causes of being δυνάμει, namely δυνάμεις and their bearers the δυνάμενα causes, and the causes of being ἐνεργείᾳ, namely ἐνέργειαι and their bearers the ἐνεργοῦντα causes. I will come back to a deeper discussion of this passage in talking about Θ in Part III below. Here I will avoid discussing the causes of being δυνάμει and ἐνεργείᾳ, and thus in particular the relations between δυνάμεις (discussed in Δ12) and being δυνάμει;[63] I will confine myself to sketching briefly how Δ7 tries to establish that being does indeed have these two senses, and how being δυνάμει appears in different syntactic contexts.

Here as elsewhere in Δ7 Aristotle goes back and forth between 1- and 2-place uses of εἶναι without explicitly calling attention to the difference or saying how the 1- and 2-place uses are connected. Aristotle assumes that the unmarked case of being is being in actuality, and his effort goes to showing that we do also use forms of εἶναι in the sense of εἶναι δυνάμει: he starts with 2-place contexts where this can be shown more easily. Indeed, he starts with quite special 2-place contexts, "S is V-ing" where "is" links a noun with a participle of a verb of action or passion, indeed specifically with a participle of a verb of cognition. These examples have the advantage that for them what Aristotle is saying is in fact true as a matter of ordinary usage. We do indeed call something "seeing" if it has the ability to see, whether or not it is seeing anything at the moment (a sighted person as opposed to a blind person, a cat as opposed to a kitten whose eyes have not yet opened, an animal with eyes as opposed to an earthworm); likewise, we call a person "knowing" if he has the ἕξις of ἐπιστήμη of (say) the Pythagorean theorem, that is, if he has the ability to actually know or contemplate it when he attends to it, even if he is not actually contemplating it at the moment.[64] We would not, as a matter of ordinary Greek, say "S is V-ing"

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[61]or adopt Beere's translation "a herm"--if so, be consistent about it, here and in other sections

[62]note some textual issues. what follows heavily overlaps with an (earlier) discussion in IIIα2: d think how to harmonize and avoid duplication. the basic principle is that discussions of εἶναι δυνάμει as a sense of being go here, discussions of δυνάμεις or δυνάμενα causes as the causes of being in that sense go in Part III. but it will probably be impossible to maintain this division consistently

[63]I will also avoid the question of the relation (synonymy?) between ἐντελέχεια and ἐνέργεια; give refs

[64]note however that while Aristotle says "we say that the potentially seeing [thing] is seeing" he says only "we say that what capable of exercising knowledge knows," without using a form of εἶναι. but since he is arguing that we can use εἶναι in the δύναμις-sense, he must be assuming that we can further convert "knows" into "is knowing," just as we converted "sees" into "is seeing"

(ordinarily we would say "S V's," without a form of εἶναι), but we would apply to S the term "V-ing," and so it would be legitimate to form the unusual sentence "S is V-ing," logically equivalent to "S V's." Aristotle has already used this equivalence earlier in Δ7, converting ἄνθρωπος βαδίζει into ἄνθρωπος βαδίζων ἐστί to argue that εἶναι can signify ποιεῖν, as it can signify any of the other categories (1017a24-30, discussed above). So now, if ἄνθρωπος ὁρῶν ἐστί is equivalent to ἄνθρωπος ὁρᾷ, and ἄνθρωπος ὁρᾷ can mean that a person is able to see, then εἶναι can signify δύνασθαι ποιεῖν (or δύνασθαι πάσχειν, since seeing is in fact a πάσχειν and not a ποιεῖν). However, Aristotle wants to claim something stronger, namely that εἶναι can signify δύνασθαι in all categories, and in either a 2-place or a 1-place context, just as he has argued earlier that εἶναι can signify any of the categories in either a 2-place or a 1-place context. To do this he needs, first, to show that the ambiguity of "S is F" occurs even when "F" is not a participle of a verb of cognition, or of any other verb of action or passion.

Although Aristotle goes very fast in Δ7 in extending the δύναμις-sense of "S is F," he seems to be roughly recapitulating the historical sequence of his own successive extensions of the δύναμις/ἐνέργεια ambiguity. In the Protrepticus, he applies this distinction only to verbs of cognition and to the verb "to live" (and the Protrepticus glosses living as sensing-or-thinking). But already in the Protrepticus he describes the stronger sense of these verbs as signifying ποιεῖν or πάσχειν, and the weaker sense as signifying being "such as to ποιεῖν or πάσχειν in that way" (B83), and he speaks in general of the possibility of a word signifying two things, the stronger of which is a ποιεῖν or πάσχειν (B81), so perhaps this ambiguity might occur also in verbs that are not verbs of cognition. But Aristotle is not yet locating this ambiguity in the verb εἶναι: if "S is V-ing" is ambiguous for some values of V, this is because the verb "V," and therefore the participle "V-ing," have a δύναμις/ἐνέργεια ambiguity, not because the verb εἶναι does. It is only in later works that Aristotle will say "S is F" in the δύναμις-sense (or will say "S is F δυνάμει" to make this sense explicit) in cases where the predicate F is not in the categories of ποιεῖν or πάσχειν.[65] He gives the fullest account of this process of extension in Metaphysics Θ, to be discussed in Part III below. Here in Δ7 he first extends the ambiguity to sentences where the predicate is a participle, but a participle of a verb that does not signify ποιεῖν or πάσχειν. As he says here, "both that to which rest already belongs and what is capable [δυνάμενον] of resting [are] resting" (1017b5-6); similarly in Θ3 (1047a22-9) he will speak of being capable [δυνατόν] of sitting or standing alongside being capable of moving or walking. This has the effect of extending the δύναμις-sense to cases where the predicate is not in the categories of ποιεῖν or πάσχειν--or, as Aristotle sometimes puts it, in the category of κίνησις--but rather in the category of κεῖσθαι, "position." But surely it is merely a grammatical accident that in "S is sitting" the predicate is expressed by a participle, while in "S is upright [ὀρθός]" the predicate is expressed by an adjective: if we can say "S is sitting" in the δύναμις-sense, we should also be able to say "S is upright" in the δύναμις-sense; and, if so, we should also be able to say "S is white" or "S is F" in general in the δύναμις-sense, where F is in the category of quality, or indeed in any other category of accidents. However, in Δ7 Aristotle skips these intermediate stages, saying immediately "and likewise with substances" (1017b6), presumably because for the larger purposes of the Metaphysics it is substances, rather than qualities or quantities, which give the most important extended cases of εἶναι δυνάμει and ἐνεργείᾳ.

One of the three sample sentences Aristotle gives to illustrate εἶναι δυνάμει in the case of substances, "what is not yet ripe is grain," is syntactically similar to the examples of seeing and resting: a 2-place εἶναι links subject and predicate, but the predicate is now in the category of substance. The other two examples are syntactically different, with a 1-place existential use of

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[65]I take it that V-ing or being F δυνάμει or κατὰ δύναμιν means V-ing or being F "in the sense of the δύναμις"

εἶναι in "the half of the line is," and a locative-existential use in "[a statue of] Hermes is in the stone" (perhaps the Hermes, and certainly the half-line, are on Aristotle's view not really substances, but some people think they are, and Aristotle is willing to assume that they are for purposes of the argument). Aristotle intends the different syntactic contexts to be mutually transformable in the ways we have discussed above; but the 2-place context makes it easier to see how the being-in-the-δύναμις-sense of substances is related to the being-in-the-δύναμις-sense of accidents. As we can say "S is seeing" because S has a δύναμις for seeing, so we can say, pointing to a bud that will become an ear of corn, that it is corn, because it has a δύναμις for becoming an ear of corn (we might especially do this to distinguish it from another species-- "that's corn, not soybeans," because it has a δύναμις for becoming or producing ears of corn, and does not have a δύναμις for becoming or producing soybeans). But we are more likely with a substance than with an accident to want to use εἶναι in a 1-place or existential context: the line-segment is, the Hermes is, the grain is (in English more naturally, "the grain exists" or "there is grain"). By transforming a 1-place use of εἶναι into a 2-place use, we will be able to see what the 1-place use would mean if taken in the δύναμις-sense. The same transformations are possible in the case of accidents: "walking [the abstract action-noun βάδισις, or the infinitive βαδίζ´ειν] is" is equivalent to "something is walking [the concrete paronym, the participle βαδίζον]," and "walking [βάδισις, βαδίζ´ειν] is in S" (or "walking [βάδισις, βαδίζ´ειν] belongs [ὑπάρχει] to S") is equivalent to "S is walking [βαδίζον]." So to say that walking [βάδισις, βαδίζ´ειν] is in the δύναμις-sense is to say that something is walking in the δύναμις-sense, i.e. that something has the δύναμις for walking. So too in the case of substances, the grain is in the δύναμις-sense because something has the δύναμις to become or to produce grain; the half-line is in the δύναμις-sense because the whole line has the δύναμις to be bisected (and something has the δύναμις to bisect it), and the Hermes is in the stone in the δύναμις-sense because the stone has the δύναμις to be carved into a Hermes (and something has the δύναμις to so carve it). Going by grammatical parallels, we might think that the Hermes is δυνατόν [possible], or is δυνατὸν εἶναι [capable of being], or δύναται εἶναι [can be], because it has a δύναμις for being, just as Socrates is δυνατὸς βαδίζειν [capable of walking] because he has a δύναμις for walking. But of course a not-yet-actually-existent thing has no δυνάμεις at all: the Hermes is δυνατόν not because it is δυνατόν [capable] of doing something, but because the Hermes is δυνατόν [possible] for something else to become or to produce, that it, it because something else has a δύναμις to become or to produce the Hermes. (This analysis is allied with Aristotle's analysis, in Physics I,7, of "S comes-to-be": uncontroversially, "white comes-to-be" is equivalent to "something [some appropriate substance] comes-to-be-white"; Aristotle then claims that, even for a substance, "S comes-to-be" is equivalent to "something [some appropriate matter] comes-to-be S," and thus he resolves the difficulties that would arise if we took the not-yet-existent S as the subject of coming-to-be.) But, in the last line of Δ7, Aristotle defers to a later discussion--evidently Θ7, which picks up the promise--the question of the conditions under which something is δυνατόν. And I too will defer deeper discussion of these issues to my discussion of Metaphysics Θ in Part III below. Which is as it should be. Metaphysics Θ is Aristotle's systematic discussion of δυνάμεις and ἐνέργειαι (and their bearers), which we know as causes of being in the δύναμις- and ἐνέργεια-senses, as candidates for being the ἀρχαί; many of the questions about being δυνάμει which arise from Δ7 can only be resolved by a causal investigation, and the purpose of Δ7 is precisely to prepare for and to motivate such an investigation. Θ will draw on Δ7, but also on Δ12's discussions of δύναμις, ἀδυναμία, δυνατόν, and ἀδύνατον, and it will integrate them into a systematic investigation of active and passive δυνάμεις as the efficient and material causes of being δυνάμει (in all categories and in all syntactic contexts) and of the priority relations beween δυνάμεις and ἐνέργειαι. This investigation, alongside ZH's investigation of the causes of being-as-said-of-the-

categories (and especially of being as oucria), will be one of the most plausible ways to get to the apxuafter the paths to the causes of being per accidens and being-as-truth have been distinguished and dismissed in E2-4. The main conclusion of ® will be that, contrary to the views of most earlier philosophers, EVEpyEta is prior to ouva1-us, and therefore that ouvci -tEtS and their bearers are not among the apxui in the strict sense; and this conclusion will be applied in Aristotle's positive account of the apxui in A.