

The Aim and the Argument of Aristotle's Metaphysics
 IIγ: Metaphysics Z4-9: the essence

IIγ2: Z7-9: Platonic forms are not needed as causes of coming-to-be

On the analysis of Metaphysics Z that I have argued for, Z4-9 constitute a coherent unit, examining Platonist arguments that the essence of a thing X is an ἀρχή existing prior to X, and arguing that these Platonist arguments do not succeed. Z4-6 discuss arguments that an essence of X, other than and prior to this manifest X, is needed as a cause of being to this manifest X; Z7-9 discuss arguments that such a prior essence of X is needed as a cause of coming-to-be to this manifest X. As Aristotle shows in Z6, it cannot always be the case that the essence of X is other than X, and so, to prove in some particular case that the essence of X is other than X and prior to X, we would need some added premiss about X; the Platonist arguments in Z7-9 take as their added premiss that X has come-to-be. Aristotle's burden in Z7-9 is to show that the coming-to-be of an X can be explained without positing a previous separately existing essence or form of X. Aristotle concedes that, to understand how this manifest X comes-to-be, we must posit a form of X existing before this manifest X does; but this form of X does not exist separately, but in another material individual of the same natural species X, or in the soul of the artisan who will produce X. And Aristotle thinks that, while the form of X does exist, in some legitimate senses, prior to this manifest X, it will not be prior κατ' οὐσίαν, and so will not be an ἀρχή in the desired sense, as the Platonists claim it is. The Platonists claim, not simply that the form of X existed temporally prior to this manifest X (and of course continues to exist, in some sense "in" the manifest X), but that this same form of X existing then and now is a single τόδε, or that it exists separately and καθ' αὐτό. By contrast, for Aristotle, there was a previously existing τόδε which was like this presently existing X (or like the form or essence of this present X), but in any sense in which the same form or essence of X existed before the present X and continues to exist in the present X, this form or essence can only be a τοιόνδε, inseparable from the τάδε (the present X and a previous X, or the form of the present X and the form of a previous X), and so not prior to them κατ' οὐσίαν, and not an ἀρχή of them as the Platonists claim. Thus having asked "whether there is a sphere apart from these [παρὰ τάσδε, sc. σφαίρας]" (Z8 1033b19-20), Aristotle answers that "there would be no coming-to-be [οὐδ' ἄν ποτε ἐγίγνετο, impersonal] if it were in this way a this [εἰ οὕτως ἦν τόδε τι]; rather, [coming-to-be occurs] because it signifies a such, and is not 'this' and determinate" (1033b21-2);¹ and Aristotle concludes, stating the main conclusions of Z4-6 and Z7-9 together, that "it is manifest that the cause [which consists] of the forms, as some are accustomed to speak of forms, if they are things beyond the individuals [παρὰ τὰ καθ' ἕκαστα], is of no use at least [as a cause of] comings-to-be and existings [πρός γε τὰς γενέσεις καὶ τὰς οὐσίας]: so that [Platonic forms] would not, at least for these reasons, be οὐσίαι καθ' αὐτάς" (1033b26-9).²

Or, at any rate, this is what Aristotle seems to present as the main conclusion of Z4-9: Z4-6

¹I will come back later to discuss how Aristotle argues, not only that a τόδε beyond the material individuals would not help explain their coming-to-be, but that it would prevent their coming-to-be. note there are several textual and grammatical difficulties in the passage I have cited, which I will discuss below

²this is roughly the opinion of St. Thomas (d cite) about the aims of Z7-9, but I can't find anyone else who has said this, although it seems to me crushingly obvious ... actually, it's also in Alexander's prologue to Λ, cited by Averroes; he also says more or less the right thing about the aims of Z4-6

argue that forms *παρὰ τὰ καθ' ἑκάστα* are not needed *πρὸς τὰς οὐσίας*, and Z7-9 argue that they are not needed *πρὸς τὰς γενέσεις*. However, Z7-9 are at the moment a text in some need of vindication. While we can use Aristotle's own statements to construct a picture of the function that Z7-9 are supposed to fulfill, together with Z4-6, in Z as a whole, it can be doubted whether Aristotle's official statements about the function of Z7-9 accurately reflect the original purpose of these chapters. Many, apparently most twentieth-century scholars (notably Jaeger, Ross, the *Londinenses*, Frede-Patzig, Burnyeat, Bostock) think that Z7-9 were not originally written as a part of Z, but were originally intended as an independent essay or as part of some other project, and were later incorporated into Z, on the usual view as an afterthought after Aristotle had already composed the main body of Z.³ Everyone seems to agree, not only that Z7-9 are by Aristotle, but that they were incorporated into Z by Aristotle himself and not by a later editor; the reason they think this is that Aristotle clearly refers back to Z7-9 at Z15 1039b23-7 and H3 1043b13-21 (both referring to what "has been shown") and Θ8 1049b27-9 (referring to what "has been said in the *λόγοι περὶ τῆς οὐσίας*") and also closely echoes the argument of Z7-9 in Λ3. And if Aristotle incorporated Z7-9 into Z, he must have thought they were useful for the overall project of Z. Still, it remains possible that Z7-9 were originally written for some other purpose, and that they are serviceable but not very efficient at fulfilling their present purpose in Z, so that, if Aristotle had originally written them for their present purpose, he would have written them quite differently. My view is that Z7-9 work perfectly well in, and were originally written for, their present context, and that once the text is properly understood, the reasons for doubt evaporate. But it is worth briefly considering the reasons recent scholars have had for suspecting that Z7-9 and their surroundings are not of one piece, and their suggestions about its original and present purposes.

Frede-Patzig cite two pieces of external evidence for their claim that Z7-9 is a later insertion: I mention these first to get them out of the way, since I think they have no persuasive force and tend to obscure the real issues. First, when Aristotle refers in H3 to a claim that has been argued in Z7-9, he says that it *δέδεικται καὶ δεδήλωται ἐν ἄλλοις* (1043b16); Frede-Patzig say that this reads "as if he were referring to another writing" (FP I,21, cp. I,24), but parallel texts show that *ἐν ἄλλοις* has no such implication.⁴ Second, Frede-Patzig say that Z7, very unusually for a

³although Bostock leaves open the possibility that Aristotle may have incorporated an independently existing Z7-9 in Z when he first wrote Z, so that there would never have been a proto-Z without Z7-9; most scholars think there was ... collect some secondary references. I haven't found full discussions in Jaeger or Ross (oddly, it's not in either of Jaeger's two Aristotle books, or in Ross' introduction); but see Jaeger's note at the beginning of Z7 in his OCT, and Ross' discussion at the beginning of Z7 in his commentary. also note the odd view of Natorp, cited by Ross *ibid.*
⁴{d collate this with what you have against Jaeger on Δ, *ἐν ἄλλοις πρότερον* etc. in Iγ1, also with section on orality and literacy} Thus at De Anima III,3 427a23-25 Aristotle says "Empedocles says [B106] and *ἐν ἄλλοις* [B108]": nobody is going to take this as evidence that B106 and B108 come from different poems. Similarly, at Politics VIII,3 1338a25-30, Aristotle cites a version of Odyssey XVII,382-5 and then says that Odysseus *ἐν ἄλλοις* says what he says at Odyssey IX,7-8. Aristotle also at Metaphysics Δ7 1017b8-9 says that he will discuss *ἐν ἄλλοις* exactly what he discusses in Θ7, and conversely Θ1 1046a4-6 says that he has discussed *ἐν ἄλλοις* what he has discussed in Δ12; there are similar apparent back-references to Δ as *ἐν ἄλλοις* at Iota 3 1055a2 and Iota 4 1055b6-7 and Iota 6 1056b34-1057a1 and to Θ (*ἐν ἄλλοις λόγοις*) at N2 1088b23-5. Someone can say that this just shows that Δ was originally an independent "writing," that Θ and N were not originally parts of the same "writing," and that likewise when Aristotle in H3 referred back to Z7-9 as *ἐν ἄλλοις*, Z7-9 were not yet part of the same "writing" as H3. But what this brings out is that we have no idea how to individuate "writings" when we affirm or deny that two passages are part of the same "writing"; Aristotle has no idea how to do it either, and he has no concern with the question. The phrase "*ἐν ἄλλοις*" (or more fully "*ἐν ἄλλοις λόγοις*") means not "in another book" but "in other discussions," which could be very close or very remote according to the needs of the context; there is no reason at all why a passage of H should not refer back to a passage of Z as *ἐν ἄλλοις*. (Cp. also Sophistical Refutations c2

new discussion within a longer text, opens without a connecting particle, and they infer that it was originally the beginning of an independent essay that has been bodily inserted into Z without even the addition of a connective. But the evidence is much too weak to support the conclusion, especially since manuscripts E and J do have the connecting particle δέ and it is only Ab that omits it.⁵ As Frede-Patzig say (II,104), the common parent of EJ could be "smoothing" the text here, but *lectio difficilior* does not decide the question, since it would also be very easy for (some ancestor of) Ab to omit the particle δέ if it were in the archetype: a look through Jaeger's or Ross' apparatus will show dozens and dozens of cases where one manuscript or manuscript family omits a monosyllabic particle (δέ, γάρ, ἤ, τε, καί, γε, μέν, εἰ, plus articles and monosyllabic forms of εἶναι) through inadvertence.⁶ Thus the beginning of aporia B#10 (1000a5) has the connecting particle δ' in Ab but lacks it in EJ; an editor could take this as evidence that there was originally no connective (especially since it is Ab rather than EJ which is notorious for "smoothing" the text) and infer that B#10 is a later insertion, but no editor has any larger motive for doing this in B#10, and so none do.

In the case of Z7-9, the real motives for taking the text as a later insertion come from three other kinds of evidence. In the first place, Aristotle fails to refer to Z7-9 in his summary of Z1-11α in Z11β (= 1037a21-b7), and in his summary of Z in H1 1042a4-24. Secondly, if Z7-9 were deleted, it seems that an acceptable continuous text would result, that we would not notice anything missing. These two kinds of evidence have been thought sufficient to show that Z7-9 were inserted sometime after Aristotle wrote Z11β and H1; but they are not. To deal with the second consideration first, it is a basic fact about Aristotle's methods of composition that a great many passages of various lengths are smoothly skippable in this way: for instance, this is true for Z5 (minus its final transitional sentence 1031a11-14), for Z6 (which Burnyeat in fact calls "semi-detached"), for Z9 taken on its own, for Z11α, for Z11β, for Z12, and for Z16 (minus the final transitional sentence 1041a3-5). At most this shows that these passages could be skipped in a shorter oral presentation, and would be included in a fuller presentation;⁷ it does not show that there was ever a time when Aristotle had written only the shorter version without the optional expansions, much less that the expansions had ever existed as anything other than parts of this continuous exposition. As for the consideration about Z11β and H1 1042a4-24, it is misleading to call these texts "summaries" of Z; they are very quick restatements of the main agenda and the main conclusions, with no pretense at following the twists and turns of the argument; the more digressive and expansive a passage is, the less likely it is to be cited in such a "summary," and in fact there is no clear reference either to Z5 or to Z11α, either in Z11β or in H1.^{8,9}

165b8-11, referring back to the Topics as ἐν ἄλλοις, although the end of the Sophistical Refutations (c34 184b3-8), picking up the beginning of the Topics (I,1 100a18-21), refers back to the Topics and Sophistical Refutations together as a single μέθοδος.)

⁵caveat on the pseudo-Alexander (not really an independent witness). Ross prints the particle, Jaeger does not

⁶although note a curious phenomenon, that Ab or its family seem to deliberately delete the first ἤ of ἤ ... ἤ and the τε of τε ... καί.

⁷see appendix to Iα1 above on orality

⁸Ross is wrong to say that Z11 1037a29-33, talking about the snub, refer back to Z5: the snub is being cited here (as in E1 and Physics II,2) as an example of a form taken together with matter, whereas in Z5 (as in the Sophistical Refutations) it is illustrating the more general logical difficulty (not depending on physics or on the concept of matter) about terms that cannot be defined without referring to some other term they presuppose; in context, the reference is clearly to Z10-11α (Ross admits that this is what the lines immediately before and after are referring to). more generally: the two "summaries" are of different characters, H1 being much more focussed on resuming the program announced in Z2 and the first sentence of Z3; the Z11 summary focusses heavily on the results of Z10-11, with everything before that being telescoped, and omitted altogether unless it has some particular relevance to Z10-

Scholars tend to treat Z7-9, not simply as another optional expansion but as an interpolation, not simply because these chapters can be skipped without formal signs of damage, but because--third consideration--they think Z would read better without them, that Z4-6 and Z10-12 (or 10-11) would be a continuous discussion of a main topic of Z, οὐσία-as-essence (arguing that οὐσία, or the οὐσία of a thing, is form), and that Z7-9 interrupt this continuous discussion with an account of a topic not obviously germane to the project of Z, the physical conditions of coming-to-be (and the account relies on the notions of matter and form, which have not been mentioned in Z4-6). Now I think the main cause of this attitude to Z7-9 is a misunderstanding of the aims of Z overall, and of the chapters on either side of Z7-9 in particular. Z10ff are not in any strong sense continuous either with Z4-6 or with Z7-9: Z4-9 are asking whether the essence of X is an ἀρχή of X, and Z10-16 are asking a new question, whether the parts of the λόγος of X are ἀρχαί of X; so even if we conclude that Z7-9 are a digressive addition to Z4-6, removing them would do nothing to improve the continuity between Z4-6 and Z10ff. Nor are Z4-6 concerned to give a positive theory of οὐσία-as-essence (and they say nothing about forms, except Platonic forms); as we have seen, Z4-5 are securing the necessary premisses for Z6, and Z6 is examining and rejecting a Platonist argument for the Forms, namely that this manifest X must be other than the essence of X. But this treatment of arguments for the Forms, or arguments that the essence of X is an ἀρχή existing prior to X, is seriously incomplete, since the Platonists have an immediate come-back: their stronger arguments turn on the premiss that this manifest X has come-to-be, and therefore that the essence of X, which did not itself come-to-be when this X came-to-be but is presupposed in X's coming-to-be, must be a previously existing ἀρχή. So, while Aristotle's argument could skip Z7-9 without becoming incoherent, it would be missing something important. It is more appropriate to have, after Z4-6, an investigation of the conditions of coming-to-be, in order to assess whether the fact that X has come-to-be requires that the essence of X be a previously existing ἀρχή. This is what Z7-9 seem to say they are doing when Aristotle concludes, "it is manifest that the cause [which consists] of the forms, as some are accustomed to speak of forms, if they are things beyond the individuals, is of no use at least [as a cause of] comings-to-be and existings: so that [Platonic forms] would not, at least for these reasons, be οὐσίαι καθ' αὐτάς" (Z8 1033b26-9, cited above). And Z7-9 in fact seem well designed for doing this; I can see no sign that the chapters had ever been designed for anything else. (And Aristotle has no reason to cite Z7-9 separately in his "summaries," since Z7-9 are not arguing for a new conclusion but are simply giving added support for an old conclusion in the face of an expected Platonist come-back.) However, Z7-9 do not go out of their way to make it easy for the reader: while I think readers' main difficulties with these chapters come from false views about the overall aims of Z, it is also true that Z7-9 do not give clear signposts to their internal structure, and in particular that Z7 launches abruptly into a discussion of things that come-to-be, without explaining the purpose of the investigation. So in understanding Z7-9, it is important to clarify not only these chapters' role in Z, but also their internal structure, which will help to show what are the conclusions that Aristotle means to emphasize in Z7-9, what are concessions, what are auxiliary premisses for supporting the main conclusions, what are supplemental corollaries, and so on. In my view, many scholars have put the emphases in exactly the wrong places, and this has helped prevent them from seeing how these chapters could function in Z as a whole.

11. see treatment of Z11β and what it summarizes in IIδ below (probably some of the results of that later treatment should be worked in here)

⁹And Aristotle does in fact unmistakably refer back to Z7-9 at Z15 1039b25-7 (of course, anyone who wants to brazen it out can insist that this is a later addition; so, e.g., FP I,24)

Given that Z7-9 do not begin with a programmatic statement, and given that Z1-2 and the first sentence of Z3 and the "summaries" in Z11β and H1 do not refer specifically to Z7-9, one very important clue to the agenda of these chapters comes from the *aporiai* of B that they are addressing, especially B#8 (though B#10 is also relevant); also valuable will be the "summary" or "parallel" to Z7-9 in Λ3. The texts from B and Λ make it hard to doubt that Z7-9 were part of the originally intended structure of Z; they also help to bring out what purpose Z7-9 were intended to serve.

B#8¹⁰ asks whether "there is something beyond [*παρά*, i.e. separate from] the individuals" (999a26), where the argument assumes that the individuals are sensible and corruptible (999b1-2, b4-5); some of the arguments in B#8 simply raise difficulties against there being nothing *παρά* sensible corruptible individuals (and to this extent Aristotle can endorse the conclusion), but other arguments are arguing specifically that universals [*γέννη*] exist *παρά* the sensible corruptible individuals; still other arguments in B#8 (as well as those of B#7) argue that universals do not exist *παρά* their individuals, so there is an *aporia* that must be resolved. Aristotle's main argument that universals must exist *παρά* the corruptible individuals turns on the fact that these individuals are corruptible: it argues--or, rather, gives a rapid outline of an argument--that the fact of coming-to-be presupposes both a material and a formal *ἀρχή*, both existing prior to the thing that comes-to-be and indeed from eternity. Rather than trying to summarize Aristotle's already extremely compressed argument, I will quote it in full and then comment on the implications.

If there is nothing eternal, then neither can there be coming-to-be. For there must be something which comes-to-be, i.e. out-of-which [something] comes-to-be,¹¹ and the ultimate of these is ungenerated, if there is a stopping-point [i.e. if there is no infinite regress of things-out-of-which] and if there cannot be coming-to-be out of non-being. Again, if there is coming-to-be and change, there must also be a limit (for no change is endless, but each has an end; and what cannot have come-to-be cannot come-to-be, and what has come-to-be must be once it has come-to-be). Again, if the matter exists [sc. prior to the thing that comes-to-be]¹² on account of its being ungenerated, it is much more reasonable that the οὐσία, i.e. what the matter is coming-to-be, [should exist prior to the thing that comes-to-be]; for if neither the matter nor the οὐσία exist, nothing at all will exist; and if this is impossible, there must be something *παρά* the composite, namely the shape and the form. (999b5-16)

The arguments sketched here belong to the class of arguments, used by Greek philosophers of all stripes, that the phenomenal fact of coming-to-be presupposes some *ἀρχαί* which are themselves eternal and immune to coming-to-be. The first sentence argues that coming-to-be presupposes an

¹⁰I am here repeating some things, verbatim or close to it, from Iβ3 above; duplications will have to be eliminated

¹¹note justifying the exegetic interpretation of τὸ γινόμενον καὶ ἐξ οὗ γίγνεται; τὸ γινόμενον here is the wood that is coming-to-be a table, not the table that comes-to-be or the table that the wood comes-to-be. in context, there doesn't seem to be any choice. I am agreeing with Ross against Madigan; but see Madigan's note at the back

¹²Christ's supplement ἔστι [ἀίδιος] is tempting, but I think impossible in view of the next few lines: ἔσται in b14 would have to have ἀίδιος understood, which is conceivable, but then ἔσται in b15 would also have to have ἀίδιος understood, which I don't see how to make sense of. see Madigan's note at the back. Ross in his commentary would understand the predicate *παρὰ τὰ καθ' ἕκαστα* (I'm not sure what this would mean); in his translation, he glosses the passage as I do

ultimate material ἀρχή, which cannot itself have come-to-be, and so must be eternal. The second sentence argues that the fact of coming-to-be requires a limit of coming-to-be, e.g. if there is coming-to-be-a-horse, there must also be a completed state of existing horseness. It is less obvious how this gets us to the existence of something eternal, but presumably the third sentence is supposed to develop the argument: Aristotle will argue that the limit of the change, i.e. the predicate that the matter is coming to possess, must (like the matter) exist before the composite exists, i.e. before this matter comes to possess this predicate. (And, if so, the "limit" horseness will presumably have existed from eternity, for why would it have come-to-be at some stage before its bearer comes-to-be? We might also be able to argue that, if horseness came-to-be, something must have come-to-be horseness, and that this would presuppose the prior existence of a "limit" for this coming-to-be, namely horsenessness.) Aristotle says "if neither the matter nor the οὐσία exist, nothing at all will exist": I take him to mean something stronger, namely that unless both the matter and the predicate-form exist, the composite will not be able to come-to-be, and so will never exist; since composites do exist and must somehow have come-to-be, both the matter and the form must previously have existed.¹³ But what exactly is the argument that, unless the predicate-form already exists, the composite cannot come-to-be? Aristotle speaks as if this were obvious a fortiori, "if the matter exists [prior to the thing that comes-to-be, and indeed from eternity] on account of its being ungenerated, it is much more reasonable that the οὐσία, i.e. what the matter is coming-to-be, [should so exist]."¹⁴ I can see three ways to spell out the argument;¹⁵ I think there are signs that Aristotle is concerned with all three of them.

First, it might be an infinite regress argument, like the argument of 999b6-8 about the material ἀρχή. When something comes-to-be a horse, at least at the end of the process the predicate-form, horseness, exists. But if this form came-to-be, either when the individual horse came-to-be or at some earlier time, then the form itself must be composed of a matter-of-the-form and a form-of-the-form; if an infinite regress is impossible, then at least the ultimate form must be ungenerated, and so it must have existed from eternity, just like the ultimate matter. As we will see, Aristotle is concerned to answer this kind of argument, but there are also more direct arguments, which turn not on a regress but on a simpler sense that, if something is on its way toward becoming an F, there must already be something that it is becoming, where this must be not an individual F but a form of F-ness. This could be expressed in a general semantic argument: if it is true to say that the thing is becoming an F (or that it will be an F), then the word "F" must mean something even before this particular F exists, and the form of F is just the meaning of this word. Plato may have something like this in mind in the Phaedo, where he says that, if you investigate through λόγοι, "you would cry out that you do not know any other way for each thing to come-to-be than by coming-to-participate [μετασχεῖν, ingressive aorist] in the particular οὐσία of that thing which it comes-to-participate in, so that ... you have no other explanation [αἰτία] of becoming two than coming-to-participate in the dyad, and that things that are going to be two [τὰ μέλλοντα δύο ἔσεσθαι] must come-to-participate in this" (101c2-6). If, when something is becoming F, it is coming-to-participate in the F, there must already be an F for it to come-to-participate in; and it looks as if Plato thinks this follows simply from the concept of becoming F. But besides this general argument, Plato has a stronger and more specific teleological argument that, if something

¹³note another possible way of taking it: 'if neither the matter nor the form exists παρά the composite, then nothing at all will exist παρά the composite, but if this is impossible, there must exist something παρά the composite' etc.: this is not going to work

¹⁴note the K2 parallel 1060a21-2; note this uses the word ἀρχή, unlike the B parallel

¹⁵all mentioned in Iβ3 above; much of this borrowed verbatim, go back and deal with duplication

is on its way to becoming an F, the form of F must already exist: for unless the coming-to-be is merely by chance (which is not credible if the product, e.g. an artifact or an animal or the world-order, is manifestly the work of reason), then the maker of the F must be "looking at" some model in producing it. This model must already exist, and it must be an F if it is to guide the maker in producing an F, and it must be an eternal F if it is to guide the maker in producing a good F: so Plato argues at Timaeus 28a6-b2 in proving that, among the ἀρχαί existing before the sensible world, there is an eternal model of the world. Both the Phaedo argument and this Timaeus argument are causal arguments, establishing the form as an ἀρχή of the thing that comes-to-be by arguing that it is needed as a cause of coming-to-be; our Phaedo passage is apparently what Aristotle has in mind when he says that "in the Phaedo it is said that the forms are causes both of being and of coming-to-be" (Metaphysics A9 991b3-4).

It is clear that Aristotle is responding to roughly this complex of Platonist arguments both in Z7-9 and in the "parallel" or "summary" in Λ3. While Z7-9 and Λ3 are very close, Aristotle's aims may come through more clearly in Λ3, partly because it is shorter and stripped to the essentials (or indeed beyond: stripped to the essential conclusions, with mere sketches of the essential arguments), partly because, as throughout Λ, Aristotle is concentrating on extracting the results of his investigations for the question of the ἀρχαί. The connection with B#8 is signalled right from the beginning of Λ3. Aristotle has just said at the end of Λ2 that there are three ἀρχαί (in an as yet undifferentiated sense of "ἀρχή"), matter and form and privation. He now adds that "neither the matter nor the form comes-to-be, I mean the ultimate [material and formal causes]. For in every change something changes and is changed by something and into something: by what [it is changed] is the first mover, what [changes] is the matter, and into what [it changes] is the form. So they will go ad infinitum, if not only does the bronze come-to-be round but also the round or the bronze [comes-to-be]: there must be a stopping-point" (Λ3 1069b35-1070a4). This is what I have called the first argument from B#8 999b5-16, the infinite regress argument (made explicitly for matter, implicitly for form) that the matter and the form of something that comes-to-be must themselves be ungenerated; in B#8 this was supporting the conclusion that the matter and the form must have preexisted, before the composite and indeed from eternity, and are thus in the strict sense ἀρχαί.¹⁶ This is precisely the conclusion that Λ3 is examining and rejecting. Or rather, Aristotle has contested the conclusion already in Λ2 in the case of matter (arguing that matter is merely potential, 1046b9-24, and also that there is not a single matter for all things, 1046b24-32; matter is τόδε τι only in appearance, Λ3 1070a9-11, so it is not this same matter which existed before the composite and continues to exist within the composite), and now in Λ3 he is going on to contest it in the case of form.¹⁷ Aristotle grants that the form is ungenerated; he also grants that the form is eternal in the sense that some form of horse must always have existed in order for this horse to come-to-be; he also grants that the form (unlike the matter) is τόδε τι, in the sense that the form of this individual horse is τόδε τι (the form is τόδε τι, Λ3 1070a11-12; different individuals have numerically different forms, "the [causes and στοιχεῖα] even of things in the same species are different, different not in species but in that [the causes and στοιχεῖα of

¹⁶perhaps note against Ross' interp of ἔσχατα at the beginning of Λ3 as "proximate"; he claims this interp is supported by the Z8 parallel, d think/discuss ... also note corresp on "what comes-to-be" = matter, at beg Λ3 (and Z7) and B#8 (against Madigan)

¹⁷on rejecting matter as a principle on the grounds that it is potential, and then turning to criticize claims of form as well, perhaps cp. K2 1060a19-24 {query: does this parallel support a diff interp of εἰ τοῦτο ἀδύνατον in B#8: "if not matter or form, there will be nothing eternal and separate," rather than, as I was urging, "if the matter and form don't both preexist, the composite won't come-to-be either"?}

different] individuals are different, your matter and your form and your mover and mine, but they are the same in universal λόγος," Λ5 1071a27-9). But the crucial point is that in any sense in which the form of horse is a single τόδε, it does not exist prior to the individual composite horse, and in any sense in which the form of horse exists prior to the individual composite horse, it is not a single τόδε; so it cannot be an ἀρχή. B#8, of course, had asked whether forms exist παρά τὰ καθ' ἑκάστα (equivalent to asking whether the form, prior to an individual composite, is τόδε τι), and, if so, whether this is so in every case; Aristotle says (without explaining why) that "it is clear that it cannot be in all cases, for we would not posit a house παρά the individual houses" (B#8 999b18-20). Λ3 immediately echoes this passage, saying "in some cases there is no τόδε τι παρά the composite οὐσία, like the form of a house ... but if [there is ever a form παρά τὰ καθ' ἑκάστα], it is in the case of things that are by nature" (Λ3 1070a13-14, 17-18). And the general conclusion of Λ3 is that we have no need, whether in natural or artificial cases, to posit forms as ἀρχαί existing prior to the composite individuals: "movers are causes as previously-existing [προγεγεννημένα], but [causes] as the λόγος are simultaneous; for when the man is healthy, then too health exists, and the shape of the bronze sphere is simultaneous with the bronze sphere ... so it is clear that for these reasons at least [διό γε ταῦτα] there is no need for there to be ideas" (1070a21-4, 26-7). All this is clearly intended as an investigation of the question of B#8 and of at least some of the Platonist arguments, culminating in a rejection of the Platonist answer.

So far I have not said anything about Aristotle's arguments in Λ3: I have cited only his main conclusions, in order to bring out where he is going in the chapter. But it is equally important how he gets there, that is, what he thinks we have to do to resolve the aporia of B#8. This emerges if we quote the end of the chapter more fully: "so it is clear that for these reasons at least there is no need for there to be ideas: for a human is generated by a human, an individual by an individual, and likewise in the arts: for the art of medicine is the λόγος of health" (1070a26-30). That is: Aristotle wants to disarm the Platonist arguments for forms as separately preexisting causes of coming-to-be, by showing that the natural generator, or the artisan and the art in his soul, is sufficient (together with the appropriate matter) to account for the coming-to-be; no other preexisting causes are needed, although of course a formal cause simultaneous with the composite will also be needed. In concession to the Platonist arguments that a preexisting form is required, and especially to the teleological argument that a preexisting form is needed to explain the coming-to-be of an animal or an artifact, Aristotle agrees that coming-to-be either by art or by nature does depend on a pre-existing form; but this is, in the natural case, the form of a previous member of the same species (for an animal, the father), or in the artificial case the form present in the art in the artisan's soul, and not a form existing παρά the material generator. When, here at the end of Λ3, Aristotle cites the catch-phrase "a human is generated by a human,"¹⁸ this phrase has a polemical point against Plato. The point is similar at the end of Physics II,2, where Aristotle asks to what extent the physicist should study forms: "as a doctor [must study] sinew or a bronzesmith bronze, as far as [knowing] that for the sake of which each thing is, and those things which are separate in form [or in species], but which are in matter. For a human is generated by a human and by the sun. But how the separate form is disposed, and what it is, it is the task of first philosophy to determine" (194b10-15). That is: the sort of form that the physicist must know about is the sort of form that is relevant to explaining the coming-to-be of a natural body (such as an animal), and this is the form that is present in a previous member of the same

¹⁸note justifying the passive translation, needed to make the emphasis fall on the right place in English

species; the separate Platonic form of human, if there is one, is not necessary or useful in explaining coming-to-be, and so the physicist has no need to know whether there is such a form or not. Here in $\Lambda 3$, Aristotle's point is not about the task of the physicist, but simply that, since separate forms are not causally relevant to coming-to-be, the fact of coming-to-be gives us no reason to believe in them. But the claim that separate forms are not causally relevant to coming-to-be turns on the claim that enmattered forms (or forms in the soul, in the case of artifacts) are causally sufficient; and this is where the burden of Aristotle's argument must lie. And so the argument of $\Lambda 3$ (after the first few lines, 1069b35-1070a4, cited above) turns on classifying the cases of coming-to-be by their different efficient causes ("something comes-to-be either by art or by nature or by luck or by spontaneity," 1070a6-7, where art and nature are two kinds of efficient cause within material things--"art is an ἀρχή in something else, nature is an ἀρχή in [the thing] itself," a7-8--and "the other causes are the privations of these," a8-9), and arguing that in each case the efficient cause from within material things is sufficient to produce the effect. In fact, $\Lambda 3$ does not make this argument in any detail, since it is just summarizing the results of Z7-9 (which in turn do not need to duplicate the detailed explanations of the On Generation and Corruption and the Generation of Animals). But $\Lambda 3$, by making it so clear what is the main conclusion and what are the supporting premisses, makes the structure of Z7-9 as well stand out more sharply amidst its greater complexities.

Frede-Patzig and Bostock, however, make exactly the opposite judgment about what main conclusion Z7-9 are supposed to be supporting within the overall argument of Z; and this is why they do not think that Z7-9 are well-designed for supporting this conclusion. Recall that Frede-Patzig and Bostock think that Aristotle originally wrote Z7-9 as an independent essay (on coming-to-be, and on matter and form as principles of coming-to-be), and then later incorporated it into Z because he thought it would be useful in supporting the overall argument of Z. But how would it be useful? Frede-Patzig says: "Aristotle needs the thought-sequence of Z7-9 in order to make clear that, besides [neben] the sensible object, one must also posit a form, that this form is essentially distinguished from the sensible object e.g. in that it is not subject to a process of coming-to-be and passing-away, and that this form [is] the nature and ousia of the sensible object, i.e. what this object really is" (FP I,25); this helps support the thesis of Z10-11, that the definition of a thing is a definition of its form alone. Similarly, Bostock says that in Z7-9 the topic of coming-to-be serves to introduce "the contrast between form and matter," which will be useful for understanding essences when form is identified with essence, and "[m]oreover, that one of the points made during the discussion of this topic, namely that form is not itself produced or created (Z8), is a point that Aristotle evidently does regard as relevant to his concerns in book Z, and it is natural to suppose that it is largely because the discussion does make this point that he decided to incorporate it here" (Bostock p.119). So these authors, far from seeing Z7-9 as directed against Plato, see these chapters (in their current context in Z) as supporting theses Plato would be very happy with, that there is a form "besides" the sensible object, and that it is not subject to coming-to-be and passing-away. Indeed, Frede-Patzig apparently think that Aristotle adds the section of Z8 criticizing Platonic forms only as an afterthought, to correct any impression that his main positive argument for ingenerable and incorruptible forms might imply the existence of separate Platonic forms.¹⁹ Now, naturally, if we think that the function of Z7-9 is

¹⁹"Die Tatsache, daß das Entstehen einer Sache die Existenz einer Form voraussetzt, die ihrerseits nicht dem Entstehen oder Vergehen unterworfen ist und daher vielleicht sogar unvergänglich ist, wirft dann 1033b19ff die Frage auf, ob es sich bei dieser Form um so etwas wie eine platonische Form handelt" (FP II,129). much of this silliness seems to be inherited from one generation of commentators to the next. Bonitz says that the task of Z7-9 is

to argue for the existence of ingenerable and incorruptible forms, we will not think that Z7-9 are designed very effectively for this function, and we will be tempted to think that they were originally designed for something else. As Bostock says, "one cannot believe that when the discussion was first written, its purpose was only, or mainly, to make this point. For the somewhat obscure discussion of spontaneous generation that occupies most of chapter 9 would then have to be set down merely as a lengthy and distracting aside, and the same might be said of much of the elaborate parallel drawn in chapter 7 between natural and artificial generation" (Bostock p.119). However, the $\Lambda 3$ parallel (and the B#8 aporia which Aristotle is answering) help make it obvious that, in their present context in Z and in the Metaphysics more broadly, the main purpose of Z7-9 is to show that we need not posit Platonic forms to account for coming-to-be; the thesis that the form does not itself come-to-be, which Frede-Patzig and Bostock take as the main conclusion (within the context of Z), should be read as merely a concessive clause, conceding to the Platonist argument from B#8 its claim that the ultimate matter and form do not come-to-be, while denying the Platonists' conclusion that this matter and form exist as eternal $\tau\acute{\alpha}\delta\epsilon$ prior to the composite.²⁰

If this is the main conclusion of Z7-9, then the chapters seem well designed for supporting it, and there seems no reason to think they had ever been intended for something else. And we can see which parts of Z7-9 the emphasis is supposed to fall on, and which play various supporting roles; and this will help us answer Bostock's objections. The essential parts of Z7-9 are all parts that are reflected in $\Lambda 3$, leading up to $\Lambda 3$'s conclusion that we do not need Platonic forms. In particular, Z9, which has no parallel in $\Lambda 3$, should be treated as an optional appendix to Z7-8, or rather as a long appendix Z9 α (1034a9-b7) on spontaneous coming-to-be and a short appendix Z9 β (1034b7-19) on non-substantial coming-to-be. In $\Lambda 3$ Aristotle breaks down the cases of coming-to-be (as he must, to show that the given efficient cause is sufficient in each case): "something comes-to-be either by art or by nature or by luck or by spontaneity: art is an $\acute{\alpha}\rho\chi\eta$ in something else, nature is an $\acute{\alpha}\rho\chi\eta$ in [the thing] itself ... and the other causes are privations of these" (1070a6-9); but then he says nothing more about coming-to-be by luck or spontaneity, and concludes at the end of the chapter that we have no need to posit ideas, since both in nature and in art the generator is sufficient (1070a26-30). And if spontaneous coming-to-be is indeed privative, then it will not be a good case for arguing for Platonic forms; still, since spontaneous coming-to-be is coming-to-be without the expected natural cause (and without a previous conspecific natural form), someone might think that natural causes were insufficient in this case, and that a Platonic form was required; so it is reasonable for Aristotle, in his fuller discussion in Z7-9, to want to deal with this case in an appendix and to show that it does not cause him difficulty. (And likewise for non-substantial coming-to-be, though again non-substances will not

to investigate "whether the $\tau\acute{\iota}$ $\eta\tilde{\nu}$ $\epsilon\tilde{\iota}\nu\alpha\iota$, or form of things free from all matter, is generated or not" (p.320, following pseudo-Alexander 486,13); then, when he comes to the critical examination of Platonic forms at Z8 1033b19ff, he says that "from this explanation of coming-to-be someone might easily be led to posit that the form which is conjoined with and determines the matter exists truly and in reality apart from [praeter = $\pi\alpha\rho\acute{\alpha}$] the sensible things" (pp.326-7), and so Aristotle asks whether there is a sphere $\pi\alpha\rho\acute{\alpha}$ these-here spheres or a house $\pi\alpha\rho\acute{\alpha}$ the bricks; likewise Ross on the same passage, "Aristotle passes now to consider a doctrine which might seem to follow from his denial of the creation of form, viz. the Platonic doctrine that Forms exist eternally and independently" (II,188).

²⁰note on Bostock's point on the citations, Bostock p.119: note that he is simply wrong about what Aristotle says at $\Theta 8$ 1049b27, that he leaves out $\Lambda 3$, and that often when Aristotle cites "does not come-to-be," he says in the same breath "but are and are-not without process of coming-to-be"; note in H3 1043b16ff, b16-18 is concessive, and b18ff $\omicron\upsilon\pi\omega$ $\delta\eta\lambda\omicron\nu$ means "this does not show that they are separate"; also dubious to say the end of Z9 is a conclusion to Z7-9 as a whole, rather than an appendix on non-substantial coming-to-be

be good cases for Platonic forms.)²¹ The main structure of Z7-9 becomes clearer if we briefly remove these appendices: this allows us to see, in particular, that the main conclusion of Z7-9 is not Z9 1034b7-19 (which is merely a parenthesis), but rather the conclusion of Z8:

It is manifest that the cause [which consists] of the forms, as some are accustomed to speak of forms, if they are things beyond the individuals [παρὰ τὰ καθ' ἕκαστα], is of no use at least [as a cause of] comings-to-be and existings [πρὸς γὰρ τὰς γενέσεις καὶ τὰς οὐσίας]: so that [Platonic forms] would not, at least for these reasons, be οὐσίαι καθ' αὐτάς. Indeed, in some cases it is manifest that the generator is such as the thing generated, but not the same, one not in number but in species, as in natural things (for a human is generated by a human), unless something comes-to-be contrary to nature, as a mule is generated by a horse (and even these are similar: for what would be common to a horse and a donkey, the proximate genus, has no name, but presumably it would be both, like a mule).²² So it is manifest that there is no need to set up a form as a paradigm (for it is in these cases most of all that they would be sought: for these [i.e. natural things] are most of all οὐσίαι); rather, the generator is sufficient to produce, and to be the cause of the form in the matter. (1033b26-1034a5)

Aristotle's point that natural things are the crucial case for the claim of the sufficiency of the generator, "for it is in these cases most of all that [paradigm-forms] would be sought, for [natural things] are most of all οὐσίαι," is closely parallel to his comment in Λ3 that "in some cases there is no τόδε τι παρὰ the composite οὐσία, like the form of a house ... but if [there is ever a form παρὰ τὰ καθ' ἕκαστα], it is in the case of things that are by nature: whence Plato was not wrong to say that there are forms [of] whatever things are by nature, if, that is, there are forms" (1070a13-14, 17-19). Still, in Z7-8 as in Λ3, he does also deal with the case of artifacts, and in the parenthesis on mules he deals with the case of things generated contrary to nature, and in Z9 he goes on to deal with the case of things generated spontaneously, and then with the case of accidents.

²¹it may not be immediately obvious that that's what Z9α is for, but it is (I'm less sure about Z9β, but that's such a minimalist note that it's hard to say anything for sure about its purpose). Aristotle's safe if you accept that spontaneous generation is privative, i.e. if you accept the analysis in Physics II, but not everyone will: if "spontaneous generation" just means the coming-to-be of something without the kind of natural cause you might expect (e.g. of a plant or animal without seed), then anyone who thinks the cosmos came-to-be in time is going to think that the first members of each plant or animal species came-to-be spontaneously (and so, I suppose, the cosmos as a whole), and they might think this is a case where no material efficient cause offers an adequate explanation and we have to turn to separate forms; someone might well argue this way on the basis of the Timaeus. also: note on Aristotle's not bothering with the luck/spontaneity distinction in Z9; the fact is that, on the analysis of Physics II,4-6, it makes no difference at all to the causal story. the only reason Aristotle bothers to distinguish luck from spontaneity at all is that some of his opponents do (those who think that luck is a divine cause); Aristotle's own account of luck is debunking, and reduces it to what we call spontaneity under certain circumstances defined by their relation to human interests rather than by anything intrinsic about the causal process. d check FP's note against Ross on tripartition vs. quadripartition in Z7 and Λ3

²²i.e. here too, although if you specify the effect too narrowly ("mule") the generator won't have been like it, if you specify it broadly ("belonging to the horse-donkey-genus") the generator will have been like it; and anyway, "belonging to the horse-donkey-genus" is all the mule has in the way of a form, it's just the genus plus maybe some privations of the specific differentiae of horses and donkeys and so on. the analogy is going to be: if you specify the effect too narrowly ("woman") the generator won't be like, but more broadly ("human") it will, and woman is just human plus some privations, as mule is just horse-donkey-genus plus some privations

If we think about why he needs Z9 to complete his argument, we can answer Bostock's complaint that "the somewhat obscure discussion of spontaneous generation that occupies most of chapter 9" appears (if Z7-9 is read as an argument for the ingenerability of forms) as "a lengthy and distracting aside." Aristotle wants to show that each thing proceeds from a material generator which is "sufficient to produce, and to be the cause of the form in the matter": in the case of natural things (disallowing contrary-to-nature cases such as mules), he says that it is "manifest" that each thing (a human, a horse) is generated by a previous member of the same species, and he has at least a program for showing (in the Generation of Animals) how such a generator is sufficient to produce and cause the form in the matter. However, the argument breaks down if humans and horses are sometimes generated spontaneously rather than by humans or horses: in such cases, there is no obvious cause sufficient to explain the form of the thing that comes-to-be. But Aristotle has argued in Z7 that even in spontaneous generation a part of the effect, indeed a part of its form (1032b26-1033a5), must preexist (in the case of health, this might be heat, if the healing comes about by the patient's being heated), and that this part gives rise of itself to the same kind of motion that would be produced by the art: "what produces [health], and whence the motion of being-healed begins, if it is from art, is the form in the soul, and if it is from spontaneity, it is from what would be the beginning of the [act of] producing for something that produces [health] by art, as in doctoring the beginning is e.g. from heating" (Z7 1032b21-6). Z9 now argues that some kinds of things can only be produced by art, and not spontaneously, because without the art their matter will not be moved in the appropriate way to begin the process of coming-to-be: thus a sick person can be spontaneously heated and so begin the process of being healed, but a heap of stones cannot spontaneously initiate the motion that will transform them into a house (Z9 1034a9-21). In contrasting art and spontaneity, Aristotle is relying on his analysis of spontaneity in Physics II, which argues that what comes-to-be for the most part is not spontaneous but teleological, and that an effect comes-to-be spontaneously if this particular effect-token (of an effect-type that typically arises teleologically) comes-to-be merely as an accidental byproduct of a process directed toward some other end. Metaphysics Z9 starts from cases where the normal coming-to-be is artistic, because in these cases it is more obvious what the normal teleological process would be, and how on some occasions the same result might arise non-teleologically; but Z9 also insists that spontaneous coming-to-be happens among things that normally come-to-be by nature in much the same way as among things that normally come-to-be by art: "it is likewise in things constituted by nature. For the seed produces as the results of art [are produced], for [the seed] has the form potentially, and that from which the seed is is in some way homonymous [with the thing produced] (for we should not in all cases look for [a homonymous cause] in the way that a human is out-of a human: for a woman is also out-of a man; and thus a mule is not out-of a mule; rather [we should look for a homonymous cause in the strict sense] whenever [the effect] is not a mutilation).²³ But the things which come-to-be spontaneously in the same way as in this [seed-generated] case are those whose matter is capable

²³the reading of EJ, ἀλλ' ἐὰν μὴ πήρωμα ἦ, is correct and unproblematic (you just have to see where the parentheses go): I restored ἀλλ' by conjectural emendation from the text of Ab, and only then noticed that it was in fact the reading of EJ. note on the history of people screwing this up, from pseudo-Alexander down to Ross, Jaeger, FP and Bostock (note that the pseudo-Alexander-Bostock solution, in addition to involving weird transpositions, fails to make sense of πῶς, to which οὕτως looks back). see what CLM do. I think Ross' notes suggest my interpretation

of being moved of itself by the same motion which the seed would produce;²⁴ but those things [whose matter cannot be so moved] are incapable of coming-to-be except out-of themselves [i.e. out of previous members of the same species]" (1034a33-b7).

In Z9 Aristotle is arguing that nothing is generated "spontaneously"--that is, without a homonymous cause²⁵--except where some preexisting "part" is sufficient to produce the effect by mere accident, as an unintended byproduct of a natural process like heating; and Aristotle argues that this cannot happen in the case of houses, or of comparable natural beings like horses and humans. This position, elaborated by Aristotle in the Generation of Animals,²⁶ which restricts the spontaneous generation of animals to "bloodless" animals (roughly, invertebrates), goes sharply against almost all earlier writers περὶ φύσεως, since almost all of these writers (not only the pre-Socratics but also the Timaeus) represent this world as having come-to-be in time (although there may have been other worlds before, either in the same place successively, or in different parts of an infinite universe): and this means that there must have been (e.g.) a first horse in this world, which cannot have been generated from a previous horse, but must have come-to-be spontaneously. Aristotle's denial that blooded animals can arise spontaneously is thus a radical thesis, implying the eternity of this world and of each species of blooded animal within it. In Physics II, where Aristotle argues that spontaneity is not in what happens for the most part, but only in local aberrations within an overall teleological framework, he is concerned above all to refute the Democritean claim that the world as a whole (and thus also the first members of each animal species within the world) arose by mere chance (Physics II,4 196a24-b5, II,6 198a5-13). But there is also another danger, namely that someone convinced (say by the apparent absurdity of an infinite regress of horses) that a horse must at some point have been generated "spontaneously" without a homonymous cause, but equally convinced that the generation of a horse is an obviously teleological process that could not occur by mere chance, would conclude that such a primeval horse-generation could not be explained by any previously existing material thing, and must proceed instead from something like a demiurge looking at a Platonic form of horse. (And someone might similarly conclude that the whole world must have arisen from a demiurge looking at a Platonic form of world.) If Aristotle can show that horses, like houses, cannot come-to-be spontaneously but always depend on a previous horse, and if (in the Generation of Animals, where he considers the issue in detail) he can show how a horse generates a horse, then he will have established his claim that in the animal case, where the Platonists are most wont to seek a paradigm, "there is no need to set up a form as a paradigm ... rather, the generator is sufficient to produce, and to be the cause of the form in the matter" (Z8 1034a2-5).

This perspective on the overall aims of Z7-9 also allows us to see more clearly the role of Z7; this is important, because Z7 begins abruptly, without any explanation of its agenda, declaring that "of things that come-to-be, some come-to-be by nature, others by art, others by spontaneity; and everything that comes-to-be comes-to-be by [the agency of] something, and [comes-to-be] out-of something, and [comes-to-be] something" (1032a12-14). Both of these assertions are also

²⁴I take the scope of ὅσα to extend through γίγνεται, and not (as FP and Bostock think) only through ἀπὸ τὰ τοιάυτα. Ross construes syntactically as I do, but supplies a very different (to my mind strange) referent for ἐκεῖ. see what CLM think

²⁵decide about imposing consistency on terms homonymous/synonymous; also cite before from Λ3 on synonymous cause, which at the moment you don't; and cite Burnyeat's view that Z7-9 in their original version were intended to show that everything that comes-to-be comes-to-be from a synonymous cause; which is not too far from right

²⁶reference? elsewhere in biological works?

made (with terminological variants) near the beginning of $\Lambda 3$: the first paragraph of $\Lambda 3$ (1069b3-1070a4) uses the premiss that "in every change something changes and is changed by something and into something" (1069b36-1070a1, cited above) to argue that the ultimate matter and ultimate form do not themselves come-to-be, and the second paragraph (1070a4ff) uses the premiss that "something comes-to-be either by art or by nature or by luck or by spontaneity," (1070a6-7, cited above) to argue that "every οὐσία comes-to-be out-of something synonymous" (1070a4-5). Aristotle's aim in Z7, as in the $\Lambda 3$ parallel, is by giving a physical classification of cases of coming-to-be according to their efficient causes, to show that there is in each case (in some appropriate sense) a preexisting synonymous cause; Aristotle needs this conclusion for the argument of Z8, where he will concede that a form like the form of the thing that comes-to-be preexisted, namely in the synonymous generator, but maintain that "the generator is sufficient to produce and be the cause of the form in the matter" and reject the inferences that there was a separate preexisting form or that this form that is in the thing that comes-to-be also preexisted.

Recall again Bostock's objection that "much of the elaborate parallel drawn in chapter 7 between natural and artificial generation," like Z9, is "merely a lengthy and distracting aside" on the assumption that Z7-9 were written to argue for the ingenerability of forms. But in arguing that "the generator is sufficient to produce," without the aid of anything like a Platonic form, it is important for Aristotle to insist that the cases of art and nature are similar. This goes both ways. On the one hand, in the case of ordinary natural generation it is especially obvious that there is a synonymous cause (so in Z8 "in some cases it is manifest that the generator is such as the thing generated, but not the same, one not in number but in species, as in natural things (for a human is generated by a human)" [1033b29-32, cited above]; Aristotle argues this, or rather points out the obvious, at Z7 1032a22-5, before getting to the harder case of art); and Aristotle spends some effort in Z7 forcing the case of art to fit with the case of nature, arguing that here too there is a kind of synonymous cause in the soul of the artisan: so that while in the artistic case we must concede a form in a sense "without matter" (Z7 1032b11-14), it will exist in a soul and not in Platonic separation. On the other hand, there is also a sense in which artistic production is the easier case for Aristotle, and he wants to explain natural production by analogy. For while the origin of the form of an animal (and especially the origin of its soul, if the soul is a form) is mysterious, there is nothing mysterious about the origin of the form of a table: we can explain it adequately by citing the carpenter's grasp of the essence of table, his desire to produce a table, his reasoning back from the desired end to an effect directly within his power (e.g. cutting the wood along this plane), and his actually producing that effect (Z7 1032b26-31). There is no further question about where the form of the table comes from: it would be a silly mistake to suppose that the form in the table arises by anything like fission from the form in the artisan's soul.²⁷ By contrast, although we know that an animal's parents have forms of the same type that it does, and somehow combine to produce it, we do not immediately understand how they do so, and it was a standard problem (notably in late antiquity among the Christians) how the soul of the offspring arises (there were three standard solutions: "traducianism"--the soul is produced by

²⁷perhaps another way that Aristotle may find the case of artistic production clearer is that he thinks it is clearer in this case that there can be no Platonic form: so at $\Lambda 3$ 1070a13-15, 17-18 (with parallel, I think cited above, B#8 999b17-20; and another?). why is it so obvious that there is no form of house παρά the composite? maybe because a form is a paradigm existing in the nature of things, and artifacts do not exist in the nature of things (but depend on human needs, conventions, etc.?). presumably there could be some sort of norms existing in the nature of things that would guide the construction of a house, but these wouldn't be themselves intrinsically artifactual, wouldn't look like an eternal house, etc., but might just be mathematical principles that the architect uses, or the like?

something like fission from the souls of the parents; "preexistence"--the soul preexists, separately or having been previously incarnated in something else, and gets attached to the offspring in the womb or at birth; and "creationism"--God creates a new soul and attaches it to the offspring in the womb or at birth). But Aristotle proposes in *Z7*, and tries to explain in detail in the *Generation of Animals*, that nature works analogously to art, that the male seed works as an instrument of the father's soul shaping the female seed into the offspring, as the ax works as an instrument of the carpenter's soul shaping the wood into the table. If Aristotle can make the analogy work, there will be no further question where the animal's soul comes from: in particular, there will be no temptation to explain it by saying that it arises by fission from the father's soul, or was previously incarnated in another animal and reattaches itself to the embryo in the womb, or that it is produced by the demiurge and the young gods and attached by the young gods to the embryo.²⁸ The analogy between natural and artificial production is also important for the case of spontaneous production and for the case of defects in production, since it is manifest how these occur in artificial things and not manifest how they occur in biology: here too the artificial case gives us a model for understanding the biological case, and helps us to understand how the effect can arise when strictly speaking a form of the same type was not present in its generator.²⁹

Z8, then, presents the main argument of *Z7-9*, while *Z7* merely secures the premisses and *Z9* deals with an embarrassing special case. *Z8* divides neatly into two halves, *Z8α* (1033a24-b19) and *Z8β* (1033b19-1034a8). *Z8* as a whole is following through the Platonist argument, or group of related arguments, alluded to in *B#8* and aiming to show that when an object *X* comes-to-be, the form or essence of *X*, what the matter of *X* comes to participate in when it comes-to-be *X*, must have existed before *X* came-to-be, and indeed from eternity. *Z8α*, like its shorter parallel *Λ3* 1069b35-1070a4, concedes to the Platonists the conclusion that the form, like the matter, does not come-to-be, on pain of an infinite regress.³⁰ I will translate (the main body of) the text, which is repetitive and textually troubled but on the whole clear enough,³¹ and then add some comments:

just as [the craftsman] does not make the ὑποκείμενον, the bronze, so neither does he make the sphere, except per accidens, inasmuch as the bronze sphere is a sphere and he makes that: for to make a this is to make this thing out of its respective ὑποκείμενον.³² I mean, to make the bronze round is not to make the

²⁸note *Λ3* 1070a21-6 on the non-preexistence of formal causes, sliding into the example of souls; and note, here and in the *GA*, that Aristotle thinks there is a special difficulty about νοῦς (which in *PA* I seems not to be the form of a body), and which we may have to conclude is introduced θύραθεν, whatever exactly that means

²⁹cf., for the spontaneous case, *Z7* 1032a28-32, looking forward to *Z9* (in the *Z7* passage it looks as if the natural case is more obvious, but it isn't, and *Z9* restores the proper order); for the defect case, see the mules parenthesis from the end of *Z8*; the form of the effect doesn't preexist, except generically, any more than the form of a defective table exists in the soul of the artisan (but does Aristotle actually draw that comparison? not here, maybe in the *GA*; also cp. Plotinus *V*,9, which echoes and develops some themes from *Z7-9*)

³⁰references to discussions of *Λ3* and *B#8* above

³¹despite a bizarre misunderstanding of Ross's (centered I suppose on the question of the antecedent of αὐτό at 1033b3), which I think nobody follows anymore (FP and Bostock correct), but perhaps you should flag it for completeness

³²leaving out the second τ, with EJ against Ab (with FP against Ross and Jaeger), but it could go either way, and has no effect on the meaning anyway (FP think it does, but this is because they have a perverse understanding of what τόδε τ means in general). I take "X is made ἐκ τοῦ ὅλως ὑποκειμένου" to be short for "the bronze cube is made out of bronze, the golden spoon is made out of gold, etc."

round (i.e. the sphere) but [to make] something else, this-form-in-another. For if he makes [the sphere, or the form], he would make it out of something else, as has been assumed: e.g. he makes a bronze sphere, in such a way that out of this, namely bronze, he makes this, namely sphere. So if he makes this [i.e. the sphere] too, clearly he will make it in the same way, and the comings-to-be will proceed ad infinitum. So it is clear that the form too,³³ or whatever we are to call the shape present in the sensible thing, does not come-to-be, i.e. there is no [process of] coming-to-be of it or of what-it-is-to-be-this³⁴ (for this is what comes-to-be-in-another either by art or by nature or by a power). But he makes there to be a bronze sphere: he makes it out of bronze and sphere,³⁵ for he makes it into this form, and this is a bronze sphere. But if there is coming-to-be of what-it-is-to-be-a-sphere as such,³⁶ then it will be something-out-of-something: for what comes-to-be will always have to be divisible, and one [part] will be this and another [part] will be this, I mean one [part] matter and another [part] form. So if sphere is "figure equal [i.e. equidistant] from the center," one [part] of it will be that in which what he makes [is], and another [part] will be in this, and the whole will be what comes-to-be, just as in the case of the bronze sphere. So it is clear from what has been said that what is called οὐσία in the sense of form³⁷ does not come-to-be, but the composite³⁸ which is called after [this form] does come-to-be, and that in everything that comes-to-be³⁹ matter is present, and one [part] is this and another [part] is this. (1033a28-b19)

Most of this is simply a presentation of the infinite regress argument, alluded to in B#8 and in Λ3, that neither the (ultimate) matter nor the (ultimate) form of a thing can come-to-be: whenever a thing comes-to-be, it has a material component and a formal component, and if the matter and the form themselves come-to-be, then they must themselves be composed of form and matter; to avoid an infinite regress, of comings-to-be and of components, at least the ultimate matter and the ultimate form must be immune to coming-to-be. This argument is a development of a very basic and familiar argument (given in general form at B#10 1000b23-8) that the ἀρχαί must be ingenerable (and therefore incorruptible), since if they were generated they would be out-of previous ἀρχαί, and there would be an infinite regress. This type of argument was certainly first applied to prove the existence of an ungenerated material ἀρχή, but Plato or a Platonist, refining the analysis by pointing out that each coming-to-be presupposes a form as well as a matter, shows that the argument establishes ungenerated formal ἀρχαί as well as an

³³keeping οὐδὲ against Jaeger's silly deletion

³⁴keeping τούτῳ with EJ against Ab (with FP against Ross and Jaeger), out of general preference for EJ and because the corruption is easier to explain in this direction, but again it makes no difference in the meaning

³⁵tentatively keeping ἐκ χαλκοῦ καὶ σφαίρας with EJ and the editors against Ab's ἐκ χαλκοῦ σφαίραν, which is certainly what Aristotle ought to have said; but Aristotle can be awfully sloppy about how he uses ἐκ, in almost the same breath as he regiments how it ought to be used

³⁶it doesn't matter whether we keep σφαῖρα in the nominative with EJAb or put it into the dative with the recentiores or the accusative with Christ; I guess keep ἐστὶ with the original reading of EJ (with FP against Ross and Jaeger) instead of ἔσται, but again it hardly matters (if we read ἔσται, then translate "if there is going to be ...")

³⁷accepting FP's deletion of ἧ.

³⁸accepting Jaeger's emendation of σύνοδος to σύνολος (the corruption arose because someone couldn't understand the gender of ἡ σύνολος, but οὐσία is understood)

³⁹decide on the textual issue

ungenerated material ἀρχή. Aristotle, in a sense, agrees, and there is nothing in this passage that shows disagreement with Plato. But, as Aristotle's later comments show, he thinks a form can be ungenerated without being eternal, and so the argument does not show what the Platonists want it to show, the existence of eternal formal ἀρχαί.⁴⁰ Indeed, already in this passage, we can see signs of how Aristotle is thinking about the status of forms. Aristotle prefers to treat the question "does X come-to-be?" by turning it around into the correlative question "does someone (or something) make X?": making X is always making X out of Y, or making Y X, where Y is the appropriate ὑποκείμενον of X, and it is clear that in this sense the craftsman does not make roundness (does not make the sphere, in the sense of what-it-is-to-be-a-sphere). Rather, the craftsman makes the bronze round, and thus, in a per accidens sense, makes roundness. The craftsman's activity is differently related to the matter, the composite, and the form, and depending on which verb we use, we can put the verb into the passive with either the matter (the affected object) or the composite (the effected object) as its subject, but not the form: for example, if I am painting the house white, then the house is being painted by me, but I cannot say that white is being painted by me.⁴¹ So the form is not properly made, and does not properly come-to-be, but only per accidens because the composite is made and comes-to-be; but this does not imply that the form existed before the composite. As Λ3 says, "[causes] as the λόγος are simultaneous; for when the man is healthy, then too health exists, and the shape of the bronze sphere is simultaneous with the bronze sphere" (1070a21-4, cited above). And indeed the main lesson that Aristotle later cites from Z7-9 is that forms sometimes are, and sometimes are not, without ever being in process of coming-to-be or passing-away: "of [composites] there is passing-away (for [of these there is] also coming-to-be), but not of the λόγος [= form] in such a way that it would pass away (for neither is there coming-to-be [of the form], for it is not for-a-house-to-be that comes-to-be but for-this-house-to-be): rather, they are and are not, without coming-to-be and passing-away: for it has been shown [sc. in Z8] that no one generates or makes them" (Z15 1039b23-7); "[the form] must either be eternal or else be corruptible without [process of] passing-away and have-come-to-be without [process of] coming-to-be: for it has elsewhere [i.e. in Z8] been shown and made clear that no one makes or generates the form, but he makes something this [e.g. makes the bronze round], and [the composite] of the two comes-

⁴⁰ {bring this note up into the text, here or elsewhere?} This gives some of Aristotle's answer, developed more fully in Λ, to B#10, asking whether the ἀρχαί of corruptible things are corruptible or incorruptible [if corruptible, how do we avoid infinite regress? if incorruptible, why are some things corruptible and others incorruptible if they are all composed of incorruptible ἀρχαί?]: the forms of corruptible things, which are in one sense ἀρχαί of them, are not generable and corruptible, so there is no regress to a further matter and form, but they are also not eternal; but corruptible things must also possess ἀρχαί in a stricter sense, which are eternal but are external, non-constituent, causes of the corruptible things.

⁴¹ (For the example of painting something white, cp. H5 1044b23-4.) One way to explain this is that the word "white" in "I am painting the house white" is intimately bound up with the verb, forming a compound transitive verb "to paint white," and cannot be sufficiently separated from the verb to be put in subject position. A connected explanation is that this kind of object of a verb is intrinsically indefinite: if I make X Y, or paint X Y, "Y" does not take the definite article, and I cannot ask "which Y?". This is the phenomenon that the scholastics called "natural supposition": a standard example to prove the reality of the phenomenon is that, when I owe you a penny, there is not some penny that I owe you, and so (according to many writers) "a penny is owed by me to you" is false. The phenomenon has gotten various more modern names and analyses. (For another treatment of the phenomenon as it arises in Z8, from a different point of view [with no mention of passivization] see Owen, "Particular and General," LSD pp.291-4.) Aristotle, not having the more sophisticated medieval or modern theories of language, will treat the phenomenon ontologically, saying that when I am making X Y, Y is τοιόνδε rather than τόδε. There is of course a problem, since Aristotle wants to say that in the case of substantial generation the resulting form is indeed a τόδε, which in Z8 it looks like he is denying. I will come back to all this below.

to-be" (H3 1043b14-18).⁴² Indeed, already in Z8α, when Aristotle says that "the form too ... does not come-to-be, i.e. there is no [process of] coming-to-be of it [οὐ γίγνεται οὐδ' ἔστιν αὐτοῦ γένεσις]" (1033b5-7, cited above), the reason the exegesis is needed is that something can have-come-to-be, γεγονέναι, (i.e., exist now after previously not existing) without ever being in process of coming-to-be, γίγνεσθαι.⁴³ It seems to have been widely granted in fourth-century philosophy that this can happen in some cases: Diodorus Cronus held that something can have-moved but that nothing can move,⁴⁴ and Aristotle in several places cites as if from common knowledge that points and other mathematical boundaries are and are not without coming-to-be or passing away (esp. B#12 1002a32-b11, also H5 1044b21-2, De Caelo I,11 280b26-8): when two bodies touch, or a single body divides, then a boundary-surface exists, but there was nothing that became that surface, and the surface does not come-to-be per se, but only per accidens when the bodies touch or divide.⁴⁵ It looks as if Aristotle is using a Platonist admission about boundaries to argue that the Platonist proof that forms do not come-to-be does not imply that they are eternal: "some things are and are not without coming-to-be and passing-away, like points (if they exist), and forms in general: for the white does not come-to-be, rather the wood [comes-to-be] white, if everything that comes-to-be comes-to-be out-of something and [comes-to-be] something" (H5 1044b21-4).

However, the Platonist of course has further arguments, what in discussing B#8 I called the logical and teleological arguments: if Y is becoming X, there must already be something that it is becoming, especially if the coming-to-be is teleological: if, for example, the artisan is making a shoe, there must be something that he is aiming to make, or it would be inexplicable that a successful shoe should emerge from the process. Aristotle wants to show that this kind of argument does not succeed in establishing Platonic forms, either of artifacts or of natural things. In Z8 he speaks specifically only of natural things, because (as he says, 1034a3-4) this is where the Platonists are most inclined to posit ideas, but he thinks the two cases are analogous, so that in either case "the generator is sufficient to produce and to be the cause of the form in the matter" (1034a4-5), and "there is no need to set up a form as a paradigm" (1034a2-3). So the artisan, or the art present in his soul, is sufficient to explain the production of the shoe, without his looking to some further paradigm of shoes. Presumably Aristotle would explain this by saying that even if the artisan looks to an external paradigm he would still need the λόγος of shoe, as contained in the art in his soul, in order to reproduce it correctly, and that this λόγος is sufficient to guide his production even without an external paradigm. And, in the Generation of Animals, Aristotle wants to show that the case of an animal is similar, that the father contains a λόγος sufficient to produce the offspring, producing something like himself rather than like an external paradigm: as Aristotle says here, "in some cases it is manifest that the generator is such [τοιούτων] as the thing

⁴²accepting Bostock's emendation ποιεῖ τι for ποιεῖται (discuss). d explain and perhaps rectify your terminology for various forms of γίγνομαι and φθείρομαι, and explain the importance of different tenses. then also note Z10 1035a28-20 implicitly making the same point, and presumably drawing in Z8. correlate with note above on Bostock p.119 and the passages he cites (and the ones he misses) on what is the main lesson later cited from Z7-9: not so much the ingenerability and incorruptibility of forms, but how they can be and not be without processes of generation or corruption

⁴³so Frede-Patzig take it, I think rightly

⁴⁴references, and note also the argument that Sextus cites from someone (Stoic? Megarian?) that Socrates does not die

⁴⁵other refs (anything in Physics V-VI? also Metaphysics E). perhaps more on the B#12 passage: note the especially strong point that if e.g. a line divides and its halves separate, it cannot be that the one point which was their common endpoint becomes two separate endpoints, or that those two endpoints come-to-be out of that one point by fission

generated, but not the same, one not in number but in species, as in natural things" (1033b29-32).⁴⁶

Still, if the artisan or the father has an internal paradigm, in the art or in the nutritive soul that produces the seed, Aristotle is in a sense admitting that the form that the process of generation is aiming at already exists. The nutritive soul of the father (as present in the seed) is aiming to make the offspring such as the father is. So there is already something--whatever is named by the underlined expression, as spelled out in each particular case--which the process of generation is aiming at. But what the underlined expression names is a *τοιόνδε*, not a *τόδε*; the *τοιόνδε* may be *οἶον τόδε* ("such as the father is"), but this is not a necessary condition of generation (it will not be satisfied for artistic production except in the relatively rare cases where there is an external paradigm), and even when there is such a *τόδε*, the *τόδε* will be merely an efficient cause, and the formal and final cause, that which the process of generation is aiming at, will be the *τοιόνδε*. So the only kind of form or essence of X that the Platonist arguments can legitimately establish as existing prior to (this manifest) X is a *τοιόνδε*, existing not separately but dependently on the *τόδε* of which it is predicated; and so these Platonist arguments do not succeed in establishing that the form or essence of X is (in the desired sense) an *ἀρχή* of X.

Indeed, Aristotle makes the stronger claim that the fact of X's coming-to-be not only does not require that the essence of X existed as a *τόδε* prior to X, it actually excludes this possibility.

So is there some sphere apart from these [*παρὰ τάσδε*, sc. *σφαίρας*], or a house apart from the bricks? Rather [*ἦ*], there would be no coming-to-be [*οὐδ' ἄν ποτε ἐγίγνετο*, impersonal] if it were in this way a this [*εἰ οὕτως ἦν τόδε τι*]; rather, [coming-to-be occurs] because it signifies a such, and is not "this" and determinate: [the maker] makes and generates, out of this, such [*ἐκ τοῦδε τοιόνδε*], and when it has been generated, it is this-such [*τόδε τοιόνδε*]. This whole, Callias or Socrates, is like this bronze sphere, and man or animal is like bronze sphere in general. (Z8 1033b19-26)⁴⁷

⁴⁶Plato would presumably reply that if the father makes the offspring in his own likeness rather than in the likeness of an eternal form, each generation will get degenerate further and further from the original type. Aristotle's answer will depend on the claim that at least sometimes an animal can perfectly instantiate the type, and at least sometimes transmit it without degeneration, although of course failures of natural production do sometimes occur. but these are issues for the GA, not for the Metaphysics, to worry about

⁴⁷there are several textual and grammatical difficulties. (i) the most important issue is about the text at 1033b21-2: EJ have *ἦ οὐδ' ἄν ποτε ἐγίγνετο, εἰ οὕτως ἦν, τόδε τι, ἀλλ' ὅτι τοιόνδε σημαίνει* (WARNING: Ross and Jaeger falsely report that J has *ἄλλο τι* in place of E's *ἀλλ' ὅτι*--I am trusting Vuillemin-Diem), and Ab has *ἀλλὰ τὸ*. Ross and Jaeger print the text of Ab (FP concur, except that like Bekker they put the question mark after *τόδε τι*, which makes no real difference, but see below). But the problem is not confined to these letters. The key to restoring sense is to delete the comma which Ross and Jaeger and FP {d check Bekker, Bonitz, Schwegler, Christ etc.} unanimously print after *ἦν* {query: is this in--some or all--manuscripts--or is it editorial intervention? the manuscripts don't generally have a lot of commas, and since *ἦν* isn't enclitic the accents won't help}, although Ross in his commentary suggests deleting it (followed by CLM and Bostock, although Bostock puts *ἄλλο τι, ἀλλὰ τοιόνδε* or *ἄλλο τι, τοιόνδε δὲ* in the latter passage). CLM accept the text of Ab with this modification, which is possible (it's hard to see a reason for the *τὸ* before *τοιόνδε*, but it's not too bad), but I prefer the text of EJ (minus the comma if that corresponds to something in the manuscripts), which is translatable and seems to make better continuous sense of the whole sentence. It remains that, either on CLM's reading or mine, *ἐγίγνετο* is absolute, which is odd, and is presumably what led either the scribes or the editors to insert the comma so as to make *τόδε τι* the subject (or, alternately, predicate complement--so taken by the Translatio Anonyma and Moerbeke) of *ἐγίγνετο*; this is also what leads Bostock to his emendation, "nothing else could ever have come into being if it were in this way a this" [or one could translate the same reading as "it could never have become anything else if it were in this way a this"].

But what exactly is Aristotle's reason for thinking that, if "sphere" as such signified a *τόδε* rather than a *τοιόνδε*, this particular bronze sphere could never have come-to-be? To see this, it helps to go back to the difficulties against the ideas from the end of B#8. Aristotle is here directly picking up from only the last line or two of B#8, but a bit more context will help to explain his intention. Most of B#8 (the part we have discussed up to now) is giving arguments for the ideas, i.e. arguments for positing that "there must be something *παρὰ τὸ σύνολον*, [namely] the shape and form" (B#8 999b16); but then Aristotle raises difficulties against so positing. First, if we do posit such ideas, in which cases do we posit them? Evidently not for all universals, since we would not posit a house *παρὰ τὰς τινὰς οἰκίας* (999b19, discussed above). But then "furthermore, is there one *οὐσία* of all (e.g.) humans? This is absurd: for all those things whose *οὐσία* is one are one. So, many different *οὐσίαι*? This is unreasonable too. And also how does the matter become each of these [forms of the individual e.g. humans], and how is the composite both of these things?" (999b20-24).⁴⁸ It is clear that all humans cannot share the same *οὐσία* without all being the same thing,⁴⁹ but less immediately clear why it is unreasonable for there to be as many *οὐσίαι* (in the sense of forms) as there are human beings: as we have seen, Aristotle himself believes in individual forms (Λ5 1071a27-9, discussed above). But here Aristotle is talking about forms posited as *ἀρχαί* existing prior to the composites, and it is indeed unreasonable to suppose that, before Bucephalus is generated, there was a separately existing individual horse-form waiting to be attached to his matter: the unemployed Bucephalus-form would have existed from eternity, and there would at the present moment be an actual infinity of unemployed horse-forms, one for each horse that will someday be born (you can avoid infinity by positing reincarnation, but even if this works for horses, it is hard to believe that the forms of bronze spheres are reincarnated). But then "also, how does the matter become each of these," e.g. how does this particular bronze become this particular sphere-form? And this is the problem of our passage from Z8: if there is a form, sphere, existing as *τόδε τι παρὰ τάσδε σφαίρας*, then (whether it is a single *τόδε* for all spheres, or a *τόδε* reserved for this particular bronze sphere which is about to come-to-be) how will one already existing *τόδε*, the bronze, become another already existing *τόδε*, the sphere? This would be like saying that, although Socrates and Callias both now exist, tomorrow Socrates will become Callias; and (B#8 adds), once the coming-to-be has occurred, to say that the composite is both of these things would be like saying that

Bostock's emendation has its attractions, but my feeling is that they're not worth the change in the text. (ii) ἦ and the question mark (cp. FP, but I see no reason to print any question mark at all [Bostock recte, check CLM]--this is the usual Aristotelian/professorial use of ἦ to suggest an answer to a question or a correction to an assumption; typically what is introduced with ἦ, or similarly ἴσως, has the author's endorsement, although sometimes there is more than one possible answer suggested; note however Bekker's suggestion of taking it as the second half of a question beginning with *πότερον*; note that rejecting the Bekker/FP question mark may become important if we adopt the reading of EJ minus the comma) (iii) against FP's *πλινθίνου*s (following a conjecture of Bonitz; note that the feminine form is wrong, as they admit, the proof being on this very same page, 1033a19; also philosophically misguided {it is appropriate for Aristotle to be asking whether the form exists *παρὰ* the subject of which it is predicated, and it is the bricks of which *οἰκία* is predicated, as it is *αἶδε* of which *σφαίρα* is predicated, cp. 1033a19 where the house was not simply the *πλινθοί*, which naturally raises the question whether it is something *παρὰ* them. FP probably want the issue to be just about universal forms apart from the individuals; they seem to want the form of the individual to exist in a strong sense *παρὰ* its matter, but this is what Aristotle is challenging, and B#8 shows that his challenge goes equally against a separate and previously existing universal form and against a separate and previously existing individual form})

⁴⁸probably discussed (and translated) in Iβ3 above, d check

⁴⁹refs, if necessary, e.g. Δ9 1018a5-7; I'll have a fuller treatment somewhere, if I didn't in Iβ3 then under Z13

tomorrow something will be both Socrates and Callias. All this is impossible: "rather, [coming-to-be occurs] because [e.g. 'sphere'] signifies a such, and is not 'this' and determinate: [the maker] makes and generates, out of this, such [ἐκ τοῦδε τοιόνδε], and when it has been generated, it is this-such [τόδε τοιόνδε]" (Z8 1033b22-4, from above)--rather than making, out of this, this, and generating a this-this. Now, while Aristotle's formulation is accurate for the case of bronze spheres--the bronze is a τόδε, the spherical form is a τοιόνδε, the bronze sphere is a τόδε τοιόνδε--it is not accurate for the generation of a genuine οὐσία, which must be τόδε and not merely τόδε τοιόνδε. If Aristotle were trying to give a theory of οὐσία here, that would be a serious embarrassment, but he is not: his fundamental point remains, that an already existing τόδε cannot be the terminus of any process of coming-to-be.⁵⁰ As Aristotle says here, the father of an animal is aiming at making his offspring τοιοῦτον οἶον himself (Z8 1033b29-32): the terminus of the process of generation will indeed be a form that is τόδε τι and not merely τοιοῦτον, but during the process there is not already a τόδε of which one can say that it is the terminus the process is aiming at; and this is enough to make Aristotle's point.⁵¹ For the moment, Aristotle is satisfied to take this bronze sphere as a model for Callias, and to conclude that, as the form of this bronze sphere does not preexist except as a τοιόνδε, so neither does the form of Callias. And, Aristotle adds, "this whole, Callias or Socrates, is like this bronze sphere, and man or animal is like bronze sphere in general"; and, as he immediately infers, "so it is manifest that the cause [which consists] of the forms, as some are accustomed to speak of forms, if they are ἅττα παρὰ τὰ καθ' ἕκαστα, is of no use at least [as a cause of] comings-to-be and existings: so that [Platonic forms] would not, at least for these reasons, be οὐσίαι καθ' αὐτάς". And this inference makes clear the point of the comment about "man or animal." When this bronze is coming-to-be a sphere, or when these καταμήνια are becoming Callias, the process is aiming at a τοιόνδε, not at a preexisting τόδε-form peculiar to Callias and also not at a preexisting τόδε-form like Man or Animal, imagined as an eternal individual which is somehow the οὐσία of Callias and also the οὐσία of Socrates. Man is not a form at all, but like bronze-sphere-in-general, or as Aristotle will say in Z10, "man and horse and whatever is in this way [said] of the individuals, but universally, is not οὐσία but some composite of this λόγος and this matter taken universally" (1035b27-30): the genuine τόδε-form which is the terminus of the generation of Callias is not Man but Callias' soul, and this is not to be sought παρὰ or prior to Callias.⁵²

⁵⁰objection: doesn't this bread become Callias, when he eats it and digests it? no, it can only become a part of Callias. and anyway Aristotle analyzes this one so that the persisting form of Callias is the subject of the change (so in the chapter on growth in GC I--I think?) [what about this bread becoming the body of Christ? on the Dominican analysis, as far as I can see, the body of Christ is a τοιόνδε; the Franciscans, to avoid this problem, make the body of Christ the persisting subject rather than the terminus of the change, and say that the body of Christ simply gains a new ubiety, coming-to-be where the bread was]

⁵¹as Owen puts it, "a sculptor engaged in making a statue is not making a particular statue, even if the end-product is a particular statue; a seed in process of becoming a tree is not becoming a particular tree, even if a particular tree is the end-product" (LSD p.291). again, the point is that in "I am making a statue," or "I am becoming a scholar," the predicate is in suppositio naturalis.

⁵²you'll have to go back and cut a lot of repetition, notably between B#8 and esp. A3 and Z7-8; conversely, you may have to add more on the Owen/suppositio naturalis issue