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THE PRIORITY IN BEING OF ENERGEIA

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Aristotle advances one of the central claims of his philosophy in Metaphysics Θ 8: the claim that energeia has priority over capacity (dunamis). Energeia is supposed to have priority in three ways: in account, in time (with qualification), and in being. With this claim, Metaphysics Θ makes its first direct contribution to the science of being. Up to that point, Aristotle had merely been explaining what being-in-energeia and beingin-capacity are in accordance with the program outlined in Θ 1. It was conceivable that, having explained this, he would conclude that the consideration of these two modes of being, just like being-as-truth and incidental being, makes no positive contribution to the science of being as such¹. But, of course, he gives being-in-energeia and being-in-capacity a central role in the science of being. Above all, Aristotle argues at length for energeia's priority in being. And this provides a constraint on the ultimate principles of being as such: they cannot be capacities, or things that merely have being-in-capacity, but must rather be energeiai, or things that have being-in-energeia. Aristotle draws on these results in Metaphysics Λ 6².

¹ Cf. Metaphysics E 2-4.

 $^{^2}$ Nearly the whole chapter, from 1071b 12, is relevant. The chapter also contains an explicit reference to Θ 8: "To suppose capacity prior to energeia, then, is in a way right, and in a way not; and we have said how" (Λ 6, 1072a 3-4). Ross follows Bonitz in claiming that the reference is not to Θ , but to the passage quoted just above, 1071b 22-26 (see Ross's commentary, $ad\ loc.$). Ross gives some philological evidence, which I consider relevant but not decisive. And his evidence is outweighed by the fact that Aristotle himself characterizes the argument at 1071b 22-26 as the presentation of a problem that needs solving. This problem is solved by understanding properly in what way capacity is and is not prior to energeia. But Aristotle explains this in Θ 8, not anywhere in 6, and hence the reference cannot be to 1071b 22-26, and is almost certainly to Θ 8.

³ I will treat it at greater length in a forthcoming book on *Metaphysics* Θ .

I do not think that Aristotle's arguments for this claim have been properly understood, or even that the claim itself has been properly understood. I will first discuss what Aristotle means by the claim — it will turn out he means two connected but distinct things — and then how he justifies it. Even this task is so complex that my treatment of it will be abbreviated³. I largely summarize my conclusions, with indications of my reasons for reaching them. I ask the reader to excuse the appearance of dogmatism that may result⁴.

1. Definitions of Priority in Being

Priority in being is much harder to understand than the other sorts of priority ascribed to *energeia* (priority in account and priority in time). It will require substantial preliminary work to understand what priority in being is at all, in order to understand Aristotle's arguments that being-in-energeia has priority in being.

I will argue that there are two criteria for priority in being in play. One is relevant to the priority in being of eternal things over perishable, and one is relevant to priority in being among perishable things. Aristotle explains what he means by priority in being at various places in his writings. At these junctures, he gives a criterion that he applies, here in Θ 8, to the priority of eternal things over perishable. But this criterion is not applicable to perishable things among themselves, so we will have to work out for ourselves what he means by priority in being for perishable things.

1.1 Eternal Things

The apparently standard criterion for priority in being is non-reciprocal entailment of being. Aristotle gives this criterion at various places in his writings, and at one point attributes it to Plato⁵:

PLATO'S CRITERION: x is prior to y in being if and only if, if x were not, y would not be, but not vice versa.

6 See the passages cited in note 5.

This criterion is formulated for comparisons between two distinct objects, such as God and a rainbow, or Socrates and Socrates' left hand. The criterion says whether one of the objects is ontologically dependent on the other. This strongly suggests (as will be confirmed below) that priority in being is, broadly, ontological dependence. The rainbow depends on God (because everything does), and thus is posterior in being to God. Socrates' left hand depends on Socrates (because Socrates' left hand stops being a hand if Socrates ceases to be, but Socrates does not cease to be if his hand does), and thus is posterior in being to Socrates. This is a particularly dramatic version of ontological dependence. The being of one thing is completely independent of the being of another: the one could be without the other, but the other could not be without the one.

Later in Θ 8, Aristotle compares eternal things and perishable things as to priority in being. This criterion is suitable for such a comparison. Rather than consider the eternal things and the perishable things severally, he considers them as groups. The eternal things have priority if the following holds:

If the eternal things were not, then the perishable things would not be, but not vice versa.

Aristotle makes it absolutely clear that he is thinking in precisely these terms. For instance, he explains the priority of eternal things as follows: "these [eternal] things are primary, for if they were not nothing would be" (1050b 19).

How does the priority of eternal things show the priority of energeia? This is the very question Aristotle's argument is designed to answer. He presupposes that eternal things have priority in being over perishable things, and then argues, on that basis, that the priority of the eternal things consists precisely in their special mode of being-in-energeia — namely, one for which there is no corresponding capacity. I will explain this further in 2.2 below. But it is already clear that, at least for the priority of eternal things, it is PLATO'S CRITERION that specifies what priority in being amounts to.

1.2 Perishable Things

Aristotle not only maintains that the pure *energeiai* of eternal things are prior to perishable things. He also maintains that the *energeiai* of

⁴ I particularly regret that I cannot respond appropriately to Stephen Makin's important paper (MAKIN [2003]); to Charlotte Witt's paper (WITT [1994]); and to R.M. Dancy's slightly older paper (DANCY [1981]). An important point of disagreement between me and these writers is that I think it is a mistake to think of *energeia* as actuality.

⁵ See Δ 11 (1019a 1-4) which is alluded to in Θ 8 (1049b 4), M 2 (1076a 36-b 4), and Categories 12 (14a 29-35). The attribution to Plato is in the passage in Δ .

perishable things have priority over their capacities. How should we understand this? At first glance, the most appealing strategy is to apply PLATO'S CRITERION again. After all, this criterion is quite clearly the standard and authoritative criterion for priority in being⁶. Unfortunately, the application of Plato's Criterion to the case of perishable things does not yield the conclusion that Aristotle himself reaches. Worse, it yields precisely the contradiction of that conclusion: according to PLATO'S CRITERION, capacities, have priority in being over *energeiai*. Aristotle himself argues for this conclusion. He considers the application of PLATO'S CRITERION to capacities and their exercise, and argues that PLATO'S CRITERION would entail that capacities have priority. This argument is given in *Metaphysics* Λ 6, where Aristotle turns to the question of how to understand the ultimate principles of everything⁷. He there describes why it is so plausible that capacities are primary:

Yet there is a difficulty [concerning the claim that there are things whose very being (ousia) is energeia]. For it seems that (1) everything that acts [energein] is able to act, but that (2) not everything that is able to act acts, so that (3) capacity is prior [to energeia]. But if this is so, (4) none of the beings will be. For (5) it is possible for something to be capable of being but not yet to be. (Λ 6, 1071b 22-26)⁸

This argument is an application of PLATO'S CRITERION to the case of capacities and their activities. He begins with the generally accepted assumption that everything that acts is able to act (1). Thus the argument relies on the assumption that:

ASSUMPTION: Necessarily, if $x \varphi$ -s, then x is able to φ .

On the other hand, it is *not* the case that, if x is able to φ , then $x \varphi$ -s. For instance, it is possible for someone to be able to build a house and yet not to engage in building a house. Aristotle argued for precisely this claim in Θ 3, where he rebutted Megaricism (the doctrine that something can [phi] only when it is [phi]-ing). Moreover, Aristotle has, throughout, understood 'being able' (dunasthai or being dunaton) in terms of having an ability or capacity (dunamis).

This ASSUMPTION yields an argument for the priority of capacity over *energeia*. Consider something engaged in an activity, φ-ing. If that thing's

capacity for φ -ing were not, then that thing's φ -ing would not be, but not vice versa. But then, according to PLATO'S CRITERION, the thing's capacity is prior in being to the thing's energeia.

It follows that, if there were no capacities, then there would be no activities, but there could be capacities without there being any activities. Thus, by a further application of PLATO'S CRITERION, capacity (in general) is prior to *energeia* (in general).

This is the conclusion that Aristotle reaches in sentence (3) of the passage just quoted. But he does not advance this conclusion in his own name. The argument for it rests on something that merely *seems* to be the case (1), namely the ASSUMPTION. This leaves it open that he will deny the ASSUMPTION that whatever φ -s has the capacity to φ . As we will see below, this is precisely what Aristotle does in Θ 8. Eternal things engage in activities without exercising a capacity.

This is how Aristotle solves the problem of *energeia* as an ultimate principle. We, however, continue to face a problem of interpretation. For Aristotle accepts the ASSUMPTION for perishable things, even if he rejects it for eternal things. Any perishable thing that φ -s does so in virtue of the exercise of a capacity to φ . Thus the argument from Λ 6 just sketched for the priority of capacities does apply to perishable things, even if it does not apply to eternal ones. Yet Aristotle clearly and emphatically asserts in Θ 8 that *energeia* has priority in being among the perishable things themselves. How can he draw this conclusion, since he appears to accept an argument for its negation?

I think that there are two distinct criteria for priority in being in Θ 8. PLATO'S CRITERION — the standard criterion for priority in being — is applied to eternal things vis à vis perishable things. A different criterion is applied to perishable things on their own, and PLATO'S CRITERION is simply ignored. Thus, while Aristotle accepts the ASSUMPTION for perishable things, he uses a different criterion of priority in being, and is thereby justified in maintaining the priority of *energeia* among perishable things.

The distinction between two criteria for priority in being is subtly but definitely marked in the text, in three ways. (1) Discussing perishable things, Aristotle characterizes the priority of *energeia* as priority in being and form. Discussing eternal things, by contrast, he speaks of the priority of *energeia* as priority in being only, not priority in form. The other two forms of priority ascribed to *energeia*, priority in account and priority in time, were similarly further elucidated. Priority in account turns

⁷ My discussion of the passage is indebted to unpublished material by Stephen Menn.

⁸ Ross's translation, modified.

into priority in account and knowledge (1049b 17). Priority in time turns into priority in time and genesis (1050a 3). In each case, the additional term gives further explanation of what the priority in question amounts to. Priority in account is not priority in what is said, but in what is known and understood. Priority in time is priority within a single unfolding process of genesis. We expect the same pattern here. Priority in being and form should be recognizable as priority in being, but it should also be contrasted with some other way of understanding priority in being. The 'other way' is spelled out by PLATO'S CRITERION. We will return in a moment to the question of how to distinguish priority in being and form from simple priority in being, but it is at least clear that there ought to be some difference.

- (2) Aristotle signals that he is shifting criteria when he turns to discuss eternal things: "But, in addition, [energeia is prior in being to capacity] in a stricter sense [than that discussed for perishable things]" (1050b 6). This stricter sense clearly corresponds to PLATO'S CRITERION.
- (3) The two arguments differ structurally, so that they ought to involve two different criteria for priority in being. The discussion of eternal things concerns the priority of some things (eternal ones) over some other things (perishable ones). Two non-overlapping groups of things are compared. For perishable things, however, Aristotle compares the energeiai and capacities of the very same individual things. He is not even comparing the energeiai of some perishable things with the capacities of others. For instance, he compares a boy's potential manhood with his subsequent active manhood. A single human being is compared with himself, at two different stages of his development. This seems to call for a different conception of priority in being from that involved in comparing two disjoint groups of objects. Moreover, this answers the important question of why Aristotle doesn't apply PLATO'S CRITERION to perishable things. Since he is interested in the capacities and energeiai of the very same individuals, PLATO'S CRITERION would seem to miss the point. It is for comparing two distinct things (or groups of things).

The problem is to find another criterion. Aristotle offers us no guidance in Θ 8 and little guidance elsewhere about how we might do so.

A helpful passage is to be found in *Categories* 12, where Aristotle discusses the senses of 'prior'. There it becomes clear that priority in being is ontological dependence, broadly construed. Aristotle begins by announcing that there are four senses of priority, and describes the four,

one of which corresponds to PLATO'S CRITERION. But then he unexpectedly introduces yet a fifth sense, observing that we think there is priority in being where PLATO'S CRITERION says there is not⁹. He considers the relationship between the fact that there is a human being and the truth of the sentence, "There is a human being". The human being and the truth of the sentence are reciprocally entailing: the one has being if and only if the other does. So, by PLATO'S CRITERION, it would seem that neither is prior. Yet, intuitively, it seems that the human being, not the truth of the sentence, has priority. Aristotle offers an account of why this should be so:

The true sentence is in no way a cause of the thing's being, whereas the thing does appear, in a way, to be the cause of the sentence's being true. For by the thing's being or not, the sentence is said to be true or false (14b 18-22).

The thing has priority in being over the sentence because it is the cause of the sentence's being true and not vice versa. Those things have priority in being on which the other things depend. I do not think that we should simply employ this fifth sense of priority in being from Categories 12 to interpret Θ 8. But Categories 12 shows that the point of PLATO'S CRITERION is to articulate a certain kind of ontological dependence. If PLATO'S CRITERION fails to capture the facts about ontological dependence, so much the worse for it. That is why Aristotle extends PLATO'S CRITERION in Categories 12. We approach Θ 8 bearing in mind that priority in being is ontological dependence broadly construed. Within Θ 8 itself, Aristotle's argument itself is our best clue to what Aristotle means by priority in being for perishable things. As he begins to discuss the priority of energeia among perishable things, the first assumption he states is, "What is posterior in genesis is prior in form and being" (1050a 4-5). Aristotle here employs the notion of priority and posteriority in genesis, which was also, I think, present in the discussion of when things have being in capacity $(\Theta 7)$. And it is the very notion used in the claim that energeia has priority in time and genesis.

This premise reveals a great deal about Aristotle's unexpressed assumptions, which can help us clarify the notion of priority in being. First, he is here considering only things that come into being (and pass away).

⁹ He doesn't himself call this fifth sense of priority 'priority in being,' but the fact that he applies PLATO'S CRITERION shows that he has priority in being in mind.

Moreover, priority is here, as in the argument for priority in time, relative to some temporally extended process of change. In a change, something becomes something: some menses become a human being; a human being becomes wise. Each change is directed towards some final state, in which something is something: the matter is a human being; the human being is wise. Becomings unfold into beings.

Of course, some processes of becoming are interrupted: due to a miscarriage, the menses never become a human being; due to the corrupting influence of video games, the human being never becomes wise. These changes do not reach their end. Aristotle assumes that processes are intrinsically directed towards certain results, which may or may not come about. Whether or not those results are achieved, the processes were all along directed towards them.

Priority in being is relative to this normative, final state. Consider, for instance, an oak tree. The being of an oak tree yields a priority-relation among the various things that have some claim to being an oak tree. Of course, some things have no claim to being an oak tree: a maple tree, for instance, has no claim to being an oak tree, nor does a violin. But acorns do have some claim to being oak trees, albeit a qualified one. They are in capacty oak trees. An oak tree sprout also has a claim to being an oak tree. The sprout and the acorn can be compared for priority in being relative to being an oak tree. One of them — the sprout — is 'closer' to being an oak tree than the other is. 'Closer' means: the sprout needs to change less, in order to become a full-fledged oak tree, than the acorn does. For that reason, the sprout has priority in being over the acorn. As Aristotle himself says in explaining, "the one already has the form, whereas the other does not" (1050a 6-7).

There simply is no relation of priority or posteriority in being between the oak sprout and a badger, or between the sprout and a violin. For there is no one form that the one has, but the other does not have (although it is to acquire it in its normal course of development)¹⁰.

In what sense is this a notion of priority in *being*? Why isn't this merely the notion of fulfilling some set of norms to a greater or lesser degree?

Aristotle never answers this question directly, but I think his idea must be this. There is priority in being because the sprout and the acorn are directed towards becoming and then being different from the way they are — namely being full-fledged oak trees — whereas an oak tree is not. The oak tree is simply supposed to go on being itself. For this reason, there is a non-reciprocal dependence among their essences. What it is to be an oak tree sprout depends on what it is to be an oak tree, but not vice versa. If there were no such thing as what it is to be an oak tree, there would be no such thing as what it is to be an acorn or an oak-sprout, but not vice versa. For instance, to be an oak tree sprout is to be such as to develop into a tree; what is it to be a sprout depends on what it is to be an oak tree. There is no reciprocal dependence of the oak tree on the sprout. This does not quite fulfill PLATO'S CRITERION, but it is sufficiently similar in spirit that one can see why it, too, should count as priority in being.

One might reformulate this idea by saying, 'You can't understand what an acorn is without understanding what an oak tree is.' This formulation is suggestive, and perhaps helpful, but it is also somewhat misleading. The claim is not about *cognition*. Aristotle has already argued that *energeia* has cognitive priority: he called this priority in account and knowledge. The claim here concerns priority in being. It is, I think, perfectly true that you cannot understand what an acorn is without understanding what an oak tree is. But one has to distinguish this truth from the ontological priority of *energeia*.

Another tempting reformulation is this: 'There is an asymmetrical causal relationship between acorns and oak trees. The oak tree is a final cause for the acorn, but not vice versa'. But Aristotle does not call this explanatory or causal priority. He calls it priority in being. Priority in being is a broad notion of ontological dependence. There is a natural tendency to say that, if one things depends on another, then it is in some way caused by it. But Aristotle is not simply reiterating the claim that acorns have an end that oak trees have already achieved. He is saying that

 $^{^{10}}$ A more difficult question is whether, say, earth has priority in genesis over a human being. On the one hand, earth is involved in the constitution of human beings. On the other hand, earth is not an early stage of the genesis of a human being. Aristotle considers a closely related question in Θ 7, and says that earth is not a human being in capacity, because it has to be changed before the process of imposing the human form on 'it' can begin. Earth stands outside the process by which a human being is generated from something that is in capacity a human being. Thus it would seem not to stand in any priority in being relation to a human being.

¹¹ This idea was not originally suggested to me by Kit Fine's work, but it has great affinity with the ideas he presents in FINE [1995].

of the change 12 . Aristotle gives an intentionally paradoxical characterization of the end as a beginning $(arkh\hat{e})$. The end is a beginning in the sense that the change began from something directed towards that end. But the end is also a principle $(arkh\hat{e})$ of the change: the change has the structure that it does because it is directed towards the given end.

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For-the-sake-of relations determine what is prior and what is posterior in genesis. If x is for the sake of y, then x had better come before y in the change. x's coming before y must be somehow helpful or beneficial but it need not be the case that y is impossible without x. A certain kind of diet may be necessary in childhood for reaching one's full height, and thus be for the sake of the full-fledged adult, even though it might have been possible to become an adult (albeit a slightly shorter one) without such an excellent diet.

For-the-sake-of relations also determine which cases of x coming before y are genuine cases of posteriority in genesis. It might be that x comes before y without y being posterior in genesis. Suppose, for instance, I am baking a marble cake. I make a mass of homogeneous dough, then separates it into two parts. I mix one part with chopped almonds, and the other with chocolate. Then I swirl these two portions of dough together. Of course, I normally mix in either the almonds or the chocolate first. Once I have produced an almond dough (or a chocolate dough), I then produce the other. But it is arbitrary which is produced first, and cake would not come out worse if I were to alternate between the two processes. Thus although one or the other comes first, neither has priority in genesis. By contrast, the homogeneous dough, without almonds and without chocolate, is prior to both; and both are themselves prior to the marbled dough at the final stage.

Aristotle exploits this connection between posteriority in being and the for-the-sake-of relation in (2b). He says, "energeia is the end, and the capacity is acquired for its sake" (my emphasis). In every case, capacities

are for the sake of something other than themselves. In particular, capacities are acquired for the sake of *energeiai*. Aristotle supports this claim with some examples:

(3) For it is not in order to have sight that animals see, but rather they have sight in order that they see, and, likewise, [people] also have the art of house-building in order that they build houses, and contemplative knowledge in order that they contemplate. But they don't contemplate in order to have contemplative knowledge, except people who are practicing. And these people do not contemplate, except in a way (1050a 10-14)¹³.

Sight is for the sake of seeing; the art of house-building is for the sake of building houses; contemplative knowledge is for the sake of contemplating. In each case, the capacity is for the sake of the *energeia*.

There are, of course, cases in which people engage in an *energeia* in order to acquire a capacity. For instance, someone might play the piano in order to acquire the capacity to play the piano expertly. Such a person seems to present a problem for Aristotle, because it seems that she engages in playing the piano for the sake of her capacity to play the piano: she wants to improve her piano-playing ability, and that is why she plays.

It seems to me that there are various cases to distinguish here. In one case, the person in question does not have the capacity, but rather is trying to acquire it. Someone who is just starting to learn to play the piano does not yet have the capacity to play the piano, but can do things like pressing certain keys. By doing *that*, the person eventually acquires the capacity to play the piano. The capacity is to be acquired precisely for the sake of its further exercise. Thus it would be wrong to think that the capacity is the final end. The capacity is not yet present at all, and once it is present, it is for the sake of its exercise, not the other way around.

Of course, there are people who can play the piano (according to any normal usage of that phrase), but who nonetheless practice. There are at least two sorts of case. In the one case, the person is trying to extend their ability. For instance, someone who cannot play fast parallel octaves with one hand might practice doing so. In such a case, the person's ability to play the piano is somehow imperfect, and the person is trying to

Pseudo-Alexander (p. 587) takes Aristotle to be giving two independent arguments for *energeia*'s priority in being. One is (1), which he understands as I do. He simply provides the second premise of the argument himself, and finds an independent argument for the priority of *energeia* in (2). This is an understandable reading of the text: (1) begins with "first because..." and (2) continues with "and because..." But note that (1) is introduced by ὅτι μέν, and there is no answering δέ with the ὅτι at the beginning of (2) (or elsewhere). As far as the Greek goes, either reading is possible. Ross, for instance, agrees with me that (1), (2a), and (2b) are all parts of a single argument, although we disagree about what the overall argument is.

¹³ I omit words, following this quotation, obelized by Ross and Jaeger: †ἢ ὅτι οὐδὲν δέονται θεωρεῖν† Barnes omits ὅτι and translates, "or else they have no need to theorize", but it is not at all clear to me what the point of this might be in the context.

acquire a new ability — not the ability to play the piano at all, but specifically the ability to play fast parallel octaves with one hand. In another sort of case, the person exercises an ability that she already has, in order to ensure that she doesn't lose it. This is not a case Aristotle discusses directly, but I think he should say something like this: just as one might exercise the capacity to build a house with an ulterior motive (e.g., to make money), so one can exercise one's pianistic skill with an ulterior motive (e.g., not to lose the skill). Just as the end of the art of housebuilding is the *house* (even if the builder happens to want money), so the end of the capacity of piano playing is playing the piano (even if the pianist happens to want to keep up her skills).

Aristotle's claim that abilities are for the sake of their exercise seems to me simply true. A capacity can, of course, be used for something other than its proper end. One can use shoes to hammer nails, or the art of house-building to destroy houses. But each ability is *for* something. What is done for the sake of an ability is also done for the sake of the eventual exercise of that ability.

Together, these considerations yield an excellent argument for PREMISE II.

PREMISE IIA: If x is for the sake of y, then y is posterior in genesis to x.

This is what Aristotle means to be saying in sentence (2a). We also have, from (2b), the following:

PREMISE IIB: All capacities are for the sake of their corresponding energeiai.

These premises together yield the conclusion sought:

PREMISE II: Energeiai are posterior in genesis to their capacities.

This argument helps clarify and justify PREMISE I, because it clarifies the notion of posteriority in genesis. As we have just seen, priority and posteriority in genesis are determined by for-the-sake-of relations. We have also seen that one thing has priority in being over another when it is a fuller realization of what they both already are. This is why a boy has priority in being over a (human) seed, and why a man has priority over a boy. This is also why human beings and the sun are not comparable with respect to priority in being: there is no one thing they both are.

It makes sense that what is posterior in genesis should be prior in being. The process of genesis is the path by which something that is not

(in energeia) F comes to be F. As the subject of change traverses that path, it comes closer and closer to being F. As it comes closer and closer to being F, it becomes a fuller and fuller realization of an F. It thus seems that PREMISE I amounts to the claim that there are no meandering processes of genesis. That is, there are no processes of genesis in which something gets farther and farther from being F, only to end up being F.

On first hearing, this claim may sound implausible. After all, I might set out to sail from New York to London, but first visit Cuba, which is farther from London than New York. But this can cover two sorts of cases. In one, I end up in Cuba by accident, perhaps because of a drastic navigational error. In such a case, Cuba is indeed farther from my destination. Likewise, an animal whose development is markedly slowed by illness, but which does reach full maturity, has been, as it were, blown off course. Aristotle's claim is presumably not intended to cover such cases. The priority-in-genesis relation is fixed by for-the-sake-of relations. Even if a period of illness intervenes in an animal's development, that period is not therefore prior or posterior in genesis to other parts of the animal's development. Because it stands outside the for-the-sake-of relations that structure the animal's normal development, it is neither prior nor posterior in genesis.

In another sort of case, I intend to take a two-part vacation, sailing first to Cuba and then to London. But in that case, sailing to Cuba does not in fact take me farther from my destination. In fact, if I sailed straight to London, I would fail to reach my goal, in the sense that I would fail to take a vacation that is partly in Cuba.

These examples help Aristotle's principle seem more plausible, I think. But there is still another kind of case that might seem to present difficulties for his claim. Consider, for instance, the relationship among a freshly hatched caterpillar, the same caterpillar after it has gorged on the leaves of a tree, and the same creature after it has transformed itself into a butterfly. The form of the butterfly presumably has, as an implicit norm, that the creature should be able to fly. But neither the newly hatched caterpillar nor the fat caterpillar is able to fly. The fat caterpillar is no closer to being able to fly than the newly hatched caterpillar. If anything, it seems farther from being able to fly, since it is heavier. In what sense, then, does the fat caterpillar have priority in being?

The solution is to distinguish carefully two things: the norms for the mature organism, fulfilled to a greater or lesser degree; and the path from the organism's current state to the mature state. The problem about the caterpillar and the butterfly arises from focusing on the fulfilling of norms. It shows that these fulfillment of norms and closeness in the process of genesis, while they regularly come together, need not come together. The fat caterpillar is, nevertheless, posterior in genesis to the skinny one: it comes later in the process. And it is also posterior in being to a butterly: what it is to be a good caterpillar at a late stage of development depends on what it is to be a butterfly. Even in the cases, such as the seed and the boy, where the boy does fulfill more norms of manhood than the seed, the boy's priority in being (and posteriority in genesis) consists in the non-reciprocal dependence of boyhood on manhood.

How does this help us understand the caterpillar and the butterfly? The for-the-sake-of relation is, again, the key. The caterpillar's growing fat is not coincidental. The caterpillar fattens itself up for the sake of something — in particular, for the sake of the long, arduous transformation into a butterfly. A lepidopterist knows that fattening up is, in the caterpillar's existence, a step towards flying, even though fattening up would not be such a step in the life of, say, Icarus. The fat caterpillar is closer to fulfilling the norm of flying than the newly hatched caterpillar. Not growing fat would be a step away from being able to fly, just because the fat is needed to transform into a butterfly. In a labyrinth, the right way to measure the distance to the destination is along the possible paths. Sometimes, turning one's back to the end of the path is proceeding towards one's goal. The lepidopterist knows the paths available to the butterfly-to-be, and thus knows how to tell which caterpillar is closer to being a butterfly.

The claim that what is posterior in genesis is prior in being is a substantive one. The relations of posteriority in genesis are fixed by the for-the-sake-of relation. But the for-the-sake-of relation simultaneously fixes a relationship of dependence among what it is to be the item in question. Therefore posteriority in genesis goes with priority in being. For the following three things are true or false together: (1) x is posterior in genesis to y; (2) y is for the sake of x; and (3) x is prior in being to y.

I think Aristotle takes the relations of priority in being to be fundamental. The lepidopterist, for instance, can explain why the process of

generation has the structure it does in terms of priority in being. It is because the fat caterpillar is one step closer to being able to fly that it comes later in the process.

This suggests a program for how to understand any natural process. We need to explain how the earlier parts of the process are for the sake of the later parts, in such a way that everything is for the sake of the end of the process as a whole. In that case, we would be explaining the processes backwards. We look first to the end, and we understand the process by considering how something that achieves that end comes into being¹⁴.

One might think of this as a mere constraint on how we go about explaining things. But Aristotle evidently, and reasonably, does not. He thinks that the reason such explanations count as explanations is not that we find them satisfying, but that they properly track the way the world is. The earlier parts of a process of genesis are dependent on the later parts, in such a way that everything is finally dependent on the end. It is not that the end is what it is because there were certain capacities that got exercised in certain ways. Rather, the capacities are what they are because of what the end is. For instance, the caterpillar's capacity to develop as it does is essentially a capacity to develop so as to turn into a butterfly. In other words, what is posterior in genesis is prior in being 15.

2.2 Eternal Things

I have said that Aristotle uses PLATO'S CRITERION in his argument concerning eternal things:

PLATO'S CRITERION: x is prior in being to y if and only, if x were not, y would not be.

One might therefore expect that Aristotle would here argue that, if eternal things were not, no perishable things would be, but not *vice versa*. For this would show the priority of eternal things over perishable things.

¹⁴ I take this to be the program Aristotle also argues for in *Physics* II 9, where he discusses hypothetical necessity.

¹⁵ The remainder of the discussion of priority in being for generated things (1050a 15-b 6), deals with various capacities and activities. It treats them according to their kinds, and shows that, for each kind, the relevant capacities and activities fit the pattern of argument: the *energeia* of form relative to matter (1050a 15-16); the genesis of a capacity, such as knowledge (1050a 16-23); capacities, such a the art of housebuilding, for producing some thing over and above the *energeia* of the capacity (1050a 23-34); capacities for an *energeia* that is a final end in its own right, such as seeing (1050a 34-b 2). For reasons of space, I offer no detailed discussion of this passage.

for eternal things. For instance, God's being what God is, is not the exercise of something's capacity to be God. The sun's being what it is and doing what it does is not the exercise of something's capacity to be a sun or to do what the sun does.

By contrast, anything perishable is what it is by the exercise of a capacity. Let us return to our well-worn example of a house. When a house-builder builds a house, he exploits the capacities of some buildable materials. For instance, he exploits the capacity of one piece of wood to support another. In the finished house, these capacities of the matter are put to work: they are active (energos). The wood constitutes a house by exercising these capacities. This is what it means to claim that form is energeia. Similarly, an oak tree's being an oak tree is the exercise of some capacities in the underlying matter. To paraphrase a remark from earlier in the chapter, the matter has being in capacity because it might enter the form (1050a 15-16). The acquisition of form is also the exercise of capacities in the matter. Whatever comes into being comes into being from some matter, and the coming into the being is the process of certain capacities being put to work. Thus, for any generated thing, its being what it is consists in the exercise of certain capacities of its matter.

But not everything came into being, according to Aristotle. If something never came into being, then there is no need for it to be conceived in this way. And in fact, Aristotle argues that it cannot be conceived in this way. That is, he has an argument for PREMISE II. This argument runs as follows:

PREMISE III: What is eternally F is not perishable 18.

PREMISE IV: If something were in capacity eternally F, then something that is eternally F would be perishable.

Hence (PREMISE II): Nothing is in capacity eternally F^{19} .

Aristotle spells this out at some length. The argument hinges on the relationship between capacity and possibility²⁰. Capacities are properties of individual things, in virtue of which they bring about changes, undergo changes, or engage in activities that, for Aristotle, are not changes at all (such as seeing, living, and thinking). Possibilities are states of affairs that might or might not obtain. For instance measuring the diagonal of a square with a line that measures the side, is impossible²¹. Aristotle argues for a systematic connection between capacity and possibility:

The argument is the following. (6) Every capacity is simultaneously of the contradictory, for what is not capable of belonging would not belong to anything, whereas it is possible for everything that is capable not to be active. (7) Therefore, both to be and not to be are possible for that which is capable of being. (8) Therefore, the same thing is able both to be and not to be. (9) But not to be is possible for that which is capable of not being. (10) And what could possibly not be is perishable, either simply, or in that very respect in which it is said to be possible not to be, either in place or in quantity or quality. And [perishable] without qualification is [perishable] in substance²². (11) Therefore, nothing that is imperishable without qualification is in capacity without qualification. (12) (But nothing prevents [its being in capacity] in some respect, for instance, in quality or location.) (13) Therefore, all [such things] are in energeia. None of the things that necessarily are [is in capacity without qualification]. Indeed, these things are primary, for if they were not nothing would be (1050b 6-19).

One might have hoped that Aristotle would argue for the controversial PREMISE III. Unfortunately, he says little about it here²³. He simply presupposes it (13). This argument focuses on PREMISE IV, which is stated in (11). (Aristotle's formulation in (11) has a different logical form than my PREMISE IV, but they are equivalent, being contrapositives of one another.)

 $^{^{18}}$ By 'to be eternally $F,\ '$ I mean 'to be F for all time' where time is assumed to be infinite.

¹⁹ I formulate the argument in terms of 'what is eternally F' rather than 'eternal things' because the argument is supposed to cover any properties that anything has for all (infinite) time, including both substance properties (such as heavenly sphere or divine unmoved mover) and other properties (such as in motion, 1050b 20 ff.). This involves the slight awkwardness of speaking of things as being perishable without qualification, in connection with substance properties, and as being perishable in some respect, e.g., with respect to motion, in connection with other properties. But this is precisely how Aristotle speaks. See sentence (10) in the quotation just below.

²⁰ Aristotle carefully marks this distinction, in the passage quoted here, with the distinction between *endekhomenon* and *dunaton*. In some other contexts, *dunaton* means 'possible' but here he reserves *endekhomenon* for 'possible' and uses *dunaton* for 'to be able' where this means, 'to have a capacity.'

²¹ Cf. ⊕ 4, 1047b 6-7 and 11-12.

This remark shows that Aristotle is using *phtharton* and *aphtharton* in the senses 'perishable' and 'imperishable', not in the senses 'perished' and 'not perished.'

²³ See *De caelo* I 12 for an extensive discussion. A helpful treatment of the passage may be found in Sarah Waterlow Broadie's book, *Passage and Possibility* [3].

Aristotle presupposes a general connection between being-in-capacity and the having of capacities. Something can have being-in-capacity only in virtue of some underlying capacities that it has (for instance, the capacities in the materials for a house, in virtue of which they can be built into a house). Those capacities (dunameis) may or may not be powers (dunameis kata kinesin). But there is, in any case, some capacity or other, in every case of being-in-capacity. This is part of the theory of being-in-capacity in Θ 7^{24} . Thus Aristotle is entitled to assume:

PREMISE V: If something is in capacity F, it is capable of being F.

In (6)–(8), he also argues for:

PREMISE VI: If something is capable of being F, then it is also capable of not being F^{25} .

PREMISE V and PREMISE VI together entail:

If something is in capacity F, then it is capable of not being F.

But if we consider a case of being eternally F, then we have one of the key premises in support of PREMISE IV:

Hence (PREMISE VII): If something is in capacity eternally F, then it is capable of not being eternally F (and hence capable of not being F).

This premise is supplemented with a further assumption, which then yields a valid argument for PREMISE IV:

PREMISE VIII: If something is capable of not being F, then it is possible that it not be F. (9)

Together with PREMISE VII, this yields:

If something is in capacity eternally F, then it is possible that it not be F.

Aristotle, rightly, defines perishability as the possibility of not being (10). This definition entitles Aristotle to infer:

PREMISE IV: If something were in capacity eternally F, then something that is eternally F would be perishable.

When the property F is not a substance-property — for instance, the property being in motion — then PREMISE IV says that the having of this property is not the exercise of any capacity of the thing. The eternal rotation of a heavenly sphere is not the exercise of a capacity for rotating²⁶. When the property F is a substance-property, then it is only natural that the thing in question does not have the relevant capacity. It isn't the sun, for isntance, that has the capacity to be the sun, but at most, the matter that constitutes the sun. But PREMISE IV denies that there is even any matter that, in its own right, is merely in capacity the eternal thing. According to Aristotle, there cannot be an eternal thing consisting of some matter that is in capacity that thing and a form that the matter eternally has.

Thus there is a valid argument for PREMISE IV. It rests on two interesting and controversial assumptions: PREMISE VI and PREMISE VIII. Aristotle offers an argument PREMISE VI. Indeed, the passage quoted begins with that argument. Unfortunately, he offers no argument for PREMISE VIII. I will make some remarks about it after considering the argument for PREMISE VI.

Why should we accept PREMISE VI, namely that, if something is capable of being F, then it is also capable of not being F? To begin with, we should note that there are many cases in which it seems straightforwardly true. A house-builder, for instance, is capable of building a house and of not building a house. Some salt is capable of being dissolved in water, but also capable of *not* being dissolved in water. Again, one and the same thing has the ability to be dissolved and not to be dissolved.

But there are also problematic cases, and they are not marginal ones. The problematic cases are those in which it is essential to something that it exercise some ability. It is essential, for instance, to a flame that it burn. Stop it from burning, and the flame is gone. Yet presumably the flame's burning is the exercise of a capacity to burn. So Aristotle seems

 $^{^{24}}$ I will defend this interpretive claim at great length in a forthcoming book. I am to a great extent in agreement with the view of Θ 7 set out by Michael Frede (FREDE [1994]), which also supports this claim.

²⁵ This is not to be confused with the earlier claim, from Θ 2, about specifically rational abilities. In Θ 2, Aristotle claimed that whatever has a rational ability to produce something can, in virtue of that same ability, also produce the opposite. The one ability allows its possessor to engage in two different activities. Here in Θ 8, Aristotle has in mind merely that a capacity may be exercised or not. This does not commit him to the view that every capacity can be exercised in two distinct activities. Note, too, that the two chapters use different terms for the relevant opposites: a contradictory (ἀντίφασις; Θ 2) is not an opposite (ἐναντίον; Θ 8).

²⁶ Aristotle complicates this claim by allowing that even something eternally in motion might be in capacity movingfromheretothere. But such a motion will not be eternal: it has end points. See 1050b 20-22.

committed to saying, in accordance with (8), that the flame is able to burn and that the flame is able not to burn, which sounds false.

The solution is to understand the negation as having wide scope. The claim is not that the flame has the capacity to not-burn, but rather that the capacity to burn is not necessarily exercised.

Thus Aristotle need not be claiming that the (very same) candle flame has the capacity to burn and the capacity not to burn. Rather, the point is that the candle flame's capacity to burn is not necessarily exercised. For this claim, it is not a problem that, once the burning ceases, the candle flame ceases to be. Similarly, a human being's living is the exercise of a capacity to live. There is no single thing that gains and loses the capacity to live. Once a human being dies, what remains is not something that exercised its capacity to live during the person's life. Nonetheless, a human being's living is the exercise of a capacity that is of the contradictory. That is, the capacity might also not be exercised, so that the human being ceases to live. Because of special features of such circumstances, this also results in the human being's irreversible destruction.

Indeed, this was the right way to understand the more straightforward cases, too. The house-builder does not have one capacity to engage in two activities, house-building and not-house-building. Still less does the house-builder have two abilities, one for house-building and one for not-house-building. There is only one ability at issue, that to engage in house-building, but this ability is sometimes exercised and sometimes not. It is in this sense that the ability is "of the contradictory". This claim attributes to all abilities the possibility of failing to be exercised.

In general, whenever something is exercising a capacity to φ , the φ -ing might cease. (And in fact will, at some time, cease.) In some cases, what was φ -ing is still around, but not φ -ing — as when the house-builder stops for lunch. In other cases, what was φ -ing isn't around any more — as when the fire stops burning, or a living thing stops living²⁷.

We have now interpreted PREMISE VI in a way that deals with the problem cases. But are there any general reasons for accepting PREMISE VI? There are some, and they emerge from Aristotle's rebuttal of the Megarics in Θ 3. Aristotle accuses the Megarics of making capacity and energeia one and the same (1047a 19-20). This accusation derives from the thought that any capacity worthy of the name is distinct from the corresponding energeia, in the sense that it might not be exercised. If there were, per impossibile, a capacity that were necessarily exercised, then it would be identical with its own energeia. That is, there would not in fact be a capacity in the only meaningful sense that Aristotle recognizes: properties distinct from the energeiai that are their exercise.

Suppose one tries to conceive a counterexample. For instance, one might think that there could be some indestructible fire, which has a capacity for burning that is necessarily and eternally exercised. The fire would, presumably, have certain features in virtue of which it burned things. But Aristotle would say that those features simply constitute the energeia of the fire. There could not be, ex hypothesi, a feature of the fire in virtue of which it was able to burn, over and above those features that constituted its energeia. For if there were such a feature, then either it itself is an energeia (and not a capacity), or it is not necessarily active, and hence the fire does not necessarily burn. While there may be some things that are essentially active in certain ways (human beings essentially live, God essentially thinks), a capacity that was necessarily exercised would not be a capacity at all, but rather an energeia. The features in virtue of which something ϕ -s either just constitute the ϕ -ing (in which case they are the energeia and not a capacity for the energeia) or they do not (in which case they constitute a capacity, but one that is not necessarily exercised).

So much for PREMISE VII. PREMISE VIII is more problematic: if something has the capacity not to be F, then it is possible that it not be F. Aristotle himself formulates this in (9): "But not to be is possible for that which is capable of not being". Counterexamples seem conceivable. One might think that the world has capacity to perish, but that God makes it impossible for a time — perhaps forever — that it be destroyed. This is the view espoused in Plato's Timaeus (41b).

To this objection, Aristotle might respond that he is invoking the criterion for possibility given at the end of Θ 3 (1047a 34-36)²⁸. According

 $^{^{27}}$ (5) through (8) suggest that Aristotle wants to deny in such a case that the thing that φ -s is capable of φ -ing. The idea is, presumably, that to say properly of something that it is capable of φ -ing, one must be attributing a capacity to φ to it, but from this it would follow that it might not φ . (Aristotle clearly espouses a parallel doctrine about possibilities [Prior Analytics I 13, 32a 20, De interpretatione 13, 22a 14-16].) It is not that I myself am capable of living, and exercise that capacity, but rather that some constituent of me (my matter) is capable of living, and exercises that capacity. But perhaps Aristotle would be satisfied with insisting that the sense in which something that essentially φ -s is capable of φ -ing is a different one, from that in which something that only incidentally φ -s is capable of φ -ing. This is what he seems to say at De interpretatione 13, 23a 6-20.

²⁸ Cf. Prior Analytics I 13, 32a 18-20.

to that criterion, it is possible for something to be destroyed if nothing impossible follows from the supposition that it is in *energeia* destroyed. This means that no necessary truth is contradicted by the conjunction of the supposition with all other necessary truths. By this criterion, it is possible for the Timaean world to be destroyed, even if God chooses to ensure that it never destroyed. For surely, if God *chooses* to ensure that it is never destroyed, then God might choose to allow it to be destroyed — hence there is no contradiction with any necessary truth in the supposition that the world is destroyed.

Plato's story in the *Timaeus* is, for Aristotle, merely a pretty story, as would be any other story in which the ultimate principle of being does not necessarily bring it about that there are perishable things. The issue is not that Plato paints an indulgently rosy picture of the world, but that the Timaean Craftsman does not provide us with any proper insight into why there is a perceptible cosmos. For Timaeus presents the story as if the Craftsman chose to produce the world. And that suggests that it is a contingent matter that the world exists at all: the Craftsman might have chosen not to create it.

Now, one might introduce a more sophisticated interpretation of the Timaeus, on which it is not the case that the Craftsman might have chosen not to produce the world. I would myself be sympathetic to such an interpretation. However, one does easily get the impression that the Craftsman might not have produced the world. After all, he says that the lesser gods eternal survival depends on his will (boulêsis; 41b). Aristotle's point is that the *Timaeus* explains why there is a cosmos only to the extent that it presents the production of the cosmos as a necessary effect produced by the very natures of the principles of the cosmos. As Aristotle will put it in Λ 6, the ultimate principles of the world cannot be capacities (dunameis). They must be energeiai. If the Craftsman of the Timaeus really did choose to create the world, and really is such that the world goes on existing only because of his contingent will, then the Timaeus provides us an 'explanation' of the genesis of the cosmos in terms of capacities (dunameis) of the Craftsman, capacities that he might or might not have exercised. And that, as Aristotle thinks, is no explanation at all.

If we supplement the story about the Craftsman and his will with some further factor, which brought about the Craftsman's decision, then that factor will be the ultimate principle of the world. The Craftsman would turn out to be a moved mover.

These remarks in support of PREMISE VIII bring us back to the problematic PREMISE III, which maintains that what is eternally a certain way is necessarily that way. Given what I have said about PREMISE VIII, we should accept that, when Aristotle assumes that it is impossible for eternal things to perish, he also assumes that their perishing would contradict a necessary truth. This might seem rather implausible, but I think there is no way around this interpretation.

This view about necessity and eternity seems to lie at the heart of his thinking about the ultimate principles of the world²⁹. Obviously, it needs to be discussed much more than I have here. But I would like just to make this remark in closing. Aristotle assumes that, in order for there to be a proper explanation of why there are any perishable things, there has to be something that is responsible for there being perishable things. And he seems to think that being responsible for this, in the relevant sense, cannot be contingent. That is, whatever is responsible for there being perishable things, is necessarily responsible for it. If we accept that much of Aristotle's view, and we accept his distinction between being-in-energeia and being-in-capacity, then he has given us powerful arguments to agree that the ultimate principles of being must be energeiai that are not the exercise of any capacity³⁰.

REFERENCES

ARISTOTLE [1957], Metaphysica, ed. W. Jaeger, Oxford University Press, London.

— [1984], The Complete Works of Aristotle: The Revised Oxford Translation, ed. Jonathan Barnes, Princeton University Press, Princeton.

BROADIE S.W. [1982], Passage and Possibility: A Study of Aristotle's Modal

Concepts, Clarendon Press, Oxford.

DANCY R.M. [1981], Aristotle and the Priority of Actuality, in Reforging the Great Chain of Being: Studies in the History of Modal Theories, S. Knuuttila (ed.), Reidel, Dodrecht.

²⁹ A connected impasse is raised in Metaphysics B 4, 1000a 5-1001a 2).

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- FINE K. [1995], Ontological Dependence, Proceedings of the Aristotelian Society 95, p. 269-290.
- FREDE M. [1994], Potentiality in Aristotle's Metaphysics, in SCALTSAS, TH., CHARLES, D., GILL, M.L. (eds.) [1994].
- HAYDUCK M. [1891], Ps. Alexander, In Aristotelis Metaphysica Commentaria, Commentaria in Aristotelem Graeca, 1, Reimer, Berlin.
- MAKIN S. [2003], What Does Aristotle Mean by Priority in Substance?, in Oxford Studies in Ancient Philosophy, XXXIV.
- PLATO [1997], Complete Works, edd. John M. Cooper and D. S. Hutchinson, Hackett, Indianapolis.
- Ross W.D. [1924], Aristotle's Metaphysics: A Revised Text with Introduction and Commentary, Oxford University Press, Oxford.
- SCALTSAS TH., CHARLES D., GILL M.L. (eds.) [1994], Unity, Identity, and Explanation in Aristotle's Metaphysics, Oxford University Press, New York.
- WITT CH. [1994], The Priority of Actuality in Aristotle, in SCALTSAS, Th., CHARLES, D., GILL, M.L. (eds.) [1994].

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