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Brian Edward Battiste

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The Role of Actuality in Aristotle's First Philosophy

Committee:	
RJ Hankinson, Supervisor	
Paul Woodruff	
Stephen White	
Robert Koons	
Daniel Bonevac	

The Role of Actuality in Aristotle's First Philosophy

by

Brian Edward Battiste, B.A.

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The Role of Actuality in Aristotle's First Philosophy

Brian Edward Battiste, Ph.D.

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Supervisor: R J Hankinson

I show how Aristotle's theory of the priority of actuality and his theory of non-

correlative actuality help prepare the way for his own positive account of the separate,

non-sensible substances. Aristotle argues that actuality is prior to potentiality in

Metaphysics Θ8, and in particular that actuality is prior in substance and in a more

authoritative kind of way. I show how both of these arguments are to be understood, and

how the more authoritative kind of priority (which is not substantial priority, as usually

thought) is again appealed to in *Metaphysics* Λ 6 in order to draw important inferences

about the primary principles. I also show how the theory of non-correlative actuality

used in Θ 8 is, just like the more authoritative kind of priority, again applied in Λ 6 in

parallel kinds of ways. It turns out that the traditional interpretation which ascribes the

notion of "pure actuality" to Aristotle is mistaken, and this comes to light once Aristotle's

theory of non-correlative actuality is properly understood and the texts are properly

interpreted.

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Introduction

Potentiality and actuality—we are all familiar with these concepts from our ordinary, commonsensical ways of thinking and talking. One could readily list examples of their usage, but there really is no need to. It is undeniable that they permeate our understanding of how the world operates, and of how people behave. We constantly contrast potential states of affairs with actual states of affairs as though there were an instinctual template for such cognition naturally implanted within us. Every adult human of sound mind, regardless of the level of education obtained, understands the difference between the potential and the actual.

But our concern here is not with how people in general understand potentiality and actuality, but with how one man understood them, namely, the philosopher Aristotle. His was no ordinary understanding, and his application of these concepts no ordinary application. He may in fact have initially incorporated these concepts into his philosophy in ways derived from their ordinary application, but where he ended up with them in the end is far removed from anything people ordinarily understand by them. It is the goal of what follows to present Aristotle's most sophisticated understanding of actuality and potentiality, the understanding developed in his work known as the *Metaphysics*, and to explain how this philosophical advancement is important for the stated goals of his first philosophy. But our goal is not to cover all of Aristotle's philosophical applications of potentiality and actuality (*dunamis* and *energeia*). In particular, his use of these concepts to help explain change (*kinēsis*) in the *Physics*, and his notion of *dunamis* as a power of

an agent to cause a change in a patient or the capacity of a patient to be changed by an agent (presented in the earlier chapters of *Metaphysics* Θ), are not for us an object of study. We will begin, rather, with his theory of the *priority of actuality* over potentiality, a theory developed at length in Θ 8, and go from there.

In addition to the theory of the priority of actuality, our primary concern also encompasses Aristotle's theory of *non-correlative actuality*, together with their combined significance to his first philosophy. That these two theories (let us call them theories for convenience, though Aristotle himself does not) are central to his metaphysics is uncontroversial among scholars. But his theory of the priority of actuality has not been properly understood, and his theory of non-correlative actuality has not received the full treatment it deserves. When properly understood and fully elucidated, their true significance to his metaphysical theory can then be brought to the fore.

Aristotle develops his theory of the priority of actuality by arguing that actuality is prior to potentiality in account (logos), in time (chronos), in substance (ousia), and in a fourth, more authoritative kind of way (i.e. in a way more important or more metaphysically significant than the other three). This is the argument of $Metaphysics \Theta 8$. In $\Lambda 6$, there is a long discussion of the priority of actuality, but no explicit mentioning by name of the kind of priority being discussed. I argue below in chapter 5 that the way actuality is prior to potentiality in $\Lambda 6$ is the same relation as the more authoritative priority of $\Theta 8$. Chapter 4 is an extended discussion of priority in the more authoritative way, chapters 2–3 treat of priority in substance, while chapter 1 is a brief overview of priorities in account and time.

One of the primary concerns of chapter 5 is coming to understand what Aristotle meant when he wrote in $\Lambda6$ that the substance of the prime mover must be actuality, and that this moving substance must itself be actually (1071b19–22). This is the passage that is traditionally understood as introducing the concept of "pure actuality." But on my interpretation it is a mistake to think of Aristotle as resorting to a new notion of actuality for his positive theory of the separate, non-sensible substances in Book Λ ; rather, he is continuing to use his concept of non-correlative actuality that was first introduced in Book H as a way to further understand substantial form (the primary substance of Z), and which was later applied to eternal sensible substances in $\Theta8$. In $\Lambda6$, Aristotle develops an account of the substantial being of the primary, non-sensible separate substances that had *already been utilized* for other eternal substances in $\Theta8$. More generally, I show how material in $\Theta8$ helps us to understand the argument of $\Lambda6$; chapter 4, which is on the more authoritative kind of priority, helps to prepare the way for the material of $\Lambda6$ –7, and chapters 5–6 are on non-correlative actuality and the priority of actuality as found in Λ .

Non-correlative actuality is simply an instance of actuality (*energeia*) that is not the exercise or realization of any underlying potentiality (*dunamis*). It is already well established that Aristotle understands actuality in this way in the context of eternal beings. For example, in his treatment of the priority of eternal things in Θ 8, Jonathan Beere writes:

[I]f something is eternally a certain way, then its being that way is not the exercise of any capacity ... 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 ...

In general, for any eternal thing, its being what it is, is simply a self-standing *energeia*, rather than the exercise of an underlying capacity.¹

Charlotte Witt writes, similarly:

Aristotle thinks that it is possible to have activities without any correlate powers or potentialities. He does not think that in principle every activity must be paired with an inactive power or ability. Eternal, imperishable beings exist actually and not potentially (*Metaphysics* ix.8.1050b6–8). Being actively or actually is not intrinsically a relational way of being dependent on the existence of a *dunamis*. Every *dunamis*, in contrast, is paired with, directed toward, an activity or actuality.²

In fact I myself allow for the concept of non-correlative potentiality as well, but it applies only to matter and not to any *dunamis* that is to be construed as a power or capacity. Aristotle first characterizes matter as non-correlative potentiality in Book H, but it is not given much application in the *Metaphysics* since matter and potentiality are not used to analyze the primary principles of the universe that first philosophy seeks to acquire knowledge of (and which knowledge constitutes wisdom). But in the final chapter, we will examine an application of Aristotle's concept of non-correlative potentiality, namely, in the context of his definition of soul in *De Anima*. He there says that the body of an actual living and fully matured organism has life potentially. It is tempting to think he must mean that the body has life actually, but matter properly understood (i.e. the body in

¹ Doing and Being: An Interpretation of Aristotle's Metaphysics Theta (Oxford, 2010), 314–16. See 314–324 for his general discussion.

² Ways of Being: Potentiality and Actuality in Aristotle's Metaphysics (Cornell, 2003), 86. She also writes, "Aristotle's eternal substances are actually; they are engaged in an activity which does not presuppose dunamis at all, or at least none that impedes the continuity and ease of their activity (1050b19–27)" (92–3). Stephen Makin, trans. and ed., Aristotle: Metaphysics Book Θ (Oxford: Clarendon Press, 2006), writes, "An eternal change is not the exercise of an underlying capacity (potentiality). A substance which is eternally (F) is not an actuality relative to any potentiality (to be F)" (210); "[T]he sun's eternal motion is not correlated with an underlying potentiality to move" (215–16); "Aristotle's main point in 1050 $^{\text{b}}$ 6–22 was that with eternal things we have actualities which are detached from any correlative potentialities" (217). And R.M. Dancy, "Aristotle and the Priority of Actuality," in Reforming the Greath Chain of Being: Studies in the History of Modal Theories, ed. S. Knuuttila (Dordrecht: D. Reidel, 1981), writes, "Aristotle believes ... there is at least one actuality without a corresponding potentiality" (83).

this case) is never actually anything in its own right. Matter has potential being only and always, and its being potentially is always relative to the substance or artefact it is the matter of.

Now I adopt the convention in chapter 4 and following of using italics to indicate non-correlative actuality and potentiality. For example, the sun *is actually* the substance that it is, and the sun's motion *is actually* as well. This simply means that there is actual being without any underlying *dunamis* or potentiality (as will be discussed later on).

The general position defended in what follows is that Aristotle develops a theory of the priority of actuality and a theory of non-correlative actuality in order to, ultimately, present his own positive account of the separate, non-sensible and eternal substances. We proceed by developing an interpretation of the priority of actuality and of non-correlative actuality, and then show (in chapters 5 ff.) how these theories are taken on board in $\Lambda6-7$ to account for the special class of separate substances. This sophisticated understanding of actuality as constituting the substantial being of eternal principles and eternal motions is an important part of the wisdom that is the stated goal of first philosophy.

* * *

Before taking up Aristotle's theory of the priority of actuality over potentiality (the argument of the longest chapter of Θ , i.e. chapter 8), some scene setting is perhaps appropriate. Aristotle will begin Θ 8 by noting that "priority in its various ways has been distinguished," and this is surely a reference to *Metaphysics* Δ 11 where various kinds of priority are defined and illustrated. It will turn out, however, that for part of the argument

at least, the material of $\Delta 11$ is not helpful, but we must look elsewhere in the corpus for parallel discussions. In particular, for Aristotle's argument that actuality is prior in substance to potentiality, material from *Physics* VIII.7 will be what is most congenial and useful for interpreting Θ .

As for the earlier chapters of Θ , Aristotle has already discussed the basic sense of *dunamis* as the power or capacity an agent has to effect a change in a patient, and the power or capacity a patient has to be changed by an agent. He has also discussed the differences between rational and irrational capacities, as well as the conditions of activation for all instances of *dunamis* identified so far. In Θ 6, Aristotle shifts the discussion towards actuality, and simultaneously takes up *dunamis* in the sense of potentiality; for example, the sighted organism with its eyes shut sees potentially, while the organism with its eyes open sees actually (1048b2). Θ 7 is then a discussion about *when* something can properly be said to be potentially. Θ 8 introduces a new topic entirely, the priority of actuality. On, then, to Aristotle's argument for it.

Chapter 1: Priority in Account and in Time

Aristotle maintains that actuality is prior to potentiality. The longest discussion in the corpus of his position occurs in $Metaphysics \Theta$. There Aristotle argues that actuality is prior to potentiality in account (logos), in time (chronos), and in substance (ousia). There is also a fourth argument for the priority of actuality, usually thought to be either an additional argument for substantial priority or a kind of continuation and expansion of the same. In this chapter we will review Aristotle's discussion of the priority of actuality in account and in time, and then continue on with substantial priority in the next.

Let us begin with the opening of chapter VIII of Θ .

And since priority in its various ways has been distinguished, it is clear that actuality is prior to potentiality. And I mean by potentiality not only the definite sort which is said to be a principle of change in another thing or in the thing itself *qua* other, but in general every principle of motion or rest. For in fact nature is in the same genus as potentiality; for it is a principle of change, though not in another thing but in the thing itself *qua* itself. To every [principle] of this sort, then, actuality is prior in both account and in substance; and in time it is prior in one way, but in another way not. Now it is clear that it is prior in account; for that which is capable (*dunaton*) in the primary sense is capable (*dunaton*) by admitting of being actual; for example, I mean by 'capable of building' 'able to build', by 'capable of seeing' 'able to see', and by 'capable of being seen' 'possible to be seen'. The same account applies to the other cases as well. Thus it is necessary that the account [of the actuality] be presupposed [and that knowledge (of the actuality be presupposed in) knowledge (of the capacity)].³ (1049b4–17)

Aristotle's argument for the priority of actuality in *logos* is rather straightforward. When one defines, for example, what the capacity for building houses is, one makes a reference to the actual building of houses; one defines the capacity by specifying the activity the capacity is for. The above underlined infinitives are the specifications of those activities. 'Build*ing*' is defined differently from 'capable of building': the former picks out an

³ The bracketing of the knowledge claim at the end is explained in Appendix A.

activity defined in its own right and without referring to the capacity; the latter picks out a capacity which makes mention of the correlative activity in its definition. The definition of the activity is the privileged member of these asymmetrically related definitions.

An elaboration of Aristotle's point could be put as follows. Take the case of sight: the capacity for sight is different from the activity of seeing. Accordingly, what it is to be able to see and what it is to see are different—the definition of 'sighted' is a different definition from that of 'seeing'. The definition of 'sighted' is 'having the ability to see'. The definition simply connects the concept of ability with an explicit mentioning of a particular activity: 'sighted' is defined in terms of 'seeing'. The definition of a capacity borders on tautology. A definition of 'seeing' on the other hand might run something like this: 'the experience in a perceiver of an external object, which through the medium of light, causes the perceiver to become aware of its location, shape, and color'. Importantly, 'seeing' is not defined in terms of the capacity for sight, but as a determinate phenomenon in its own right, while being sighted is simply the capacity for realizing this phenomenon. Now Aristotle himself would no doubt not define seeing in the way given here (which definition I simply invented for illustrative purposes), but this actually strengthens his point. His point is that no matter how you define seeing, any genuinely proposed definition of seeing is going to be prior in account to the definition of sight.

In the case of temporal priority, Aristotle holds that actuality is prior to potentiality in one way, but *posterior* to potentiality in another.⁴ There is thus something of an anomaly in the fact that *potentiality* is prior in time, since the theme of the chapter is that actuality is prior to potentiality. Aristotle discusses these two counterbalancing priority relations as follows:

Actuality is prior in time in the following way: the actual φ which is the same in kind [as the potential φ] is prior, but [the actual φ which is] the same in number is not.⁵ And I mean by this [latter claim] that prior in time to this man already existing in actuality and the grain and the seeing thing, there is the matter, the seed, and the sighted which are potentially a man, grain, and a seeing thing [respectively], but are not yet so actually. But prior in time to these⁶ are others existing actually from which these came to be. For in each case what is actually φ comes to be from what is potentially φ through the agency of something actually φ ; for example a man from a man, a musician from a musician—there always being some first mover; and the mover is already actually φ. And it has been said in the discourses on substance that every thing which comes to be comes to be something out of something and by the agency of something, and this [latter] is the same in kind as it. Wherefore it indeed seems impossible that one could be a house builder without ever having built any houses, or a kithara player without ever having played the kithara. For the one learning to play the kithara learns to play the kithara by playing the kithara, and similarly with the other cases. And here the sophistic puzzle arose, that someone who lacks knowledge will do the very thing for which he lacks knowledge (since the one learning lacks the knowledge). But owing to the fact that of the thing which is coming to be, some part of it has already come to be, and in general, of that which is being changed some part has already been changed (and this is clear in the discourses on change), it is necessary that the one learning also have, equally, some part of the knowledge. So, then, it is clear in this way at any rate that actuality is again prior to potentiality, in generation and time. (1049b17–1050a3)

Let us consider the anomaly first. Potentiality is prior in time to actuality in the following way: every adult was once a child, every grain plant was once a seed, and for

⁴ χρόνω δ'ἔστι μὲν ὡς, ἔστι δὲ ὡς οὔ (1049b11–12).

⁵ The 'φ's' are not in the original but have been inserted by me for clarification.

⁶ I.e., the previously mentioned actual man, grain, and seeing thing.

every seeing thing there existed a period during which it was not yet able to see.⁷ That is, every particular actual φ previously existed in the form of a mere potential φ . Indeed, it is necessary that a potential φ first exist if there is going to be generation of an actual φ . The actuality emerges at the end of the process of development, when a potential φ finally comes to be actual. In this context, the actual φ and the potential φ are not distinct objects; but it is the same thing which is at one stage potential and at a later stage actual.

Yet *actuality* is prior in time in the following way: every actual φ has come to be actual through the agency of some numerically distinct actual φ . For example, something which is potentially a human being comes to be an actual human being owing to the causal role of its father and his sperm. Also, a potential musician comes to be an actual musician through the assisting efforts of a distinct actual musician, the music teacher. In the former kind of case, the father of the organism, by means of his sperm, provides the form to the appropriate matter in the female; in the latter kind of case, the actual musician, relying on his art, provides the student with the knowledge and skills that will make him or her an actual musician. Every potential φ that comes to be an actual φ does so through a process of development (e.g. learning, or growth), and it comes to be the kind of thing it is by the agency of a distinct entity that is both *already* actual (b27) and the same in kind (or form, *eidos*) as the developed entity (b18–19, 29). Actuality is thus prior to potentiality in time.

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⁷ I take this to refer to sighted organisms in their early stages of development, as do Myles Burnyeat *et al.*, *Notes on Eta and Theta* (Oxford Philosophy Sub-Faculty, 1984), 139. For example, some animals are born with their eyes still shut (like mice) and are only potentially sighted. Animals born actually sighted nonetheless develop the capacity while still in the womb.

Moreover, actuality is also prior in time in that before one develops the capacity (*dumamis*) for playing the kithara or for building houses, one must actually play the kithara or actually build houses. It is by practicing the activity that one develops the capacity.⁸ Under the guidance of an instructor who already is an actual artisan, the music student and the building apprentice do the very activities for which they are developing the professional capacity. While their amateurish activities may stand in need of improvement (the knowledge or skill having not been yet fully acquired), such quasi-activities nevertheless precede in time the emergence of what is properly the capacity.

Now, while the meaning of 'priority in time' is fairly straightforward, it is not entirely clear how Aristotle's argument for the priority of actuality in time actually establishes his intended conclusion. He does not show that the actual φ functioning as the efficient cause must *pre-exist* in time the potential φ , only that it must be present to change the potential φ into an actual φ . This is perhaps most apparent in the case of the musician. Suppose Susan is a potential musician in the sense that she could acquire the art of playing the violin but has not yet done so. Suppose that her future teacher Mary learns the art of playing the violin while Susan is still only a potential musician. After Mary learns the art, she then teaches Susan, who in turn also comes to be an actual musician. In such a (realistic) case, the actual moving cause (i.e. Mary the musician) apparently did not precede in time the potential musician whom she transformed, since

⁸ Cf. Nic. Eth. 1103a33–4: 'people become builders by building and kitharists by playing the kithara.'

⁹ As noticed by commentators: W. D. Ross, ed., *Aristotle's Metaphysics: Revised Text with Introduction and Commentary* (Oxford: Clarendon Press, 1924), vol. II, 260; R. M. Dancy raises the same criticism in "Aristotle and the Priority of Actuality," in *Reforming the Greath Chain of Being: Studies in the History of Modal Theories*, ed. S. Knuuttila (Dordrecht: D. Reidel, 1981), 86; and Stephen Makin, trans. and ed., *Aristotle*: Metaphysics *Book* Θ (Oxford: Clarendon Press, 2006), 186.

Susan was a potential musician before Mary became an actual musician. Hence, we should be reluctant to grant Aristotle his conclusion, since it seems that the moving cause need not precede *in time* the potential φ that it transforms into an actual φ (even if it does precede in time the *development* of the potential φ into an actual φ).¹⁰

I think Aristotle's argument here can withstand this particular worry, but it needs further support. As it stands, the text alone does not show that actuality is prior in time to potentiality. The case of potential and actual living organisms is the easier one. We know that Aristotle describes an actual organism of species φ as having the capacity to reproduce. Since the father of any potential φ has *ipso facto* the ability to reproduce, we can conclude that before reproduction took place and the potential φ came to be, an actual φ qua efficient cause pre-existed in time the potential φ , since only φ 's that are actual can reproduce.

The case of the musician is a bit more difficult. I think Aristotle would maintain that Susan is not in fact a potential musician until she makes the appropriate sort of contact with the individual who will teach her to play the violin, until she actually begins her study under a teacher. There is still something that needs to be added to the circumstances in order to make Susan a potential musician in the technical and considered sense of 'potential'. Since Susan could not make the relevant kind of contact with her teacher Mary until after Mary had become an actual musician, Mary the

 $^{^{10}}$ There is yet the further issue of autodidacts and spontaneous comings to be, both of which do not require a temporally prior actual ϕ .

¹¹ Cf. Θ.7 1049a5–12. For more on the important distinction between the technical notion of potentiality and the broader notion of mere possibility, see Michael Frede, "Aristotle's Notion of Potentiality in *Metaphysics* Θ," in *Unity, Identity, and Explanation in Aristotle's Metaphysics*, eds. T. Scaltsas *et al.* (Oxford, 1994), 177, 187–190; and Makin, *Book* Θ, xxii–xxvii, xli–xlii.

actual musician would in fact precede in time Susan the potential musician. Hence, Aristotle's argument can be filled in to give him the conclusion he wants: actuality is prior to potentiality in time since the transformation of the potential ϕ into an actual ϕ requires that an actual ϕ pre-exist the potential ϕ and function as the external agent of transformation. Additionally (1049b29–1050a3), actuality is prior in time to potentiality because any artisan must first practice the activities of the art (must actually ϕ at an amateur level) as a necessary means for acquiring the capacity proper. When the student acquires the full capacity to ϕ , then she is an actual ϕ -er; while still studying, the student is a potential ϕ -er.

Now it is one thing for Aristotle to argue *that* actuality is prior to potentiality in a particular way, and it is another thing to explain *why* such a priority relation is philosophically significant. Aristotle does not himself elaborate on the significance of the temporal priority of actuality. However, he makes an interesting back reference to the temporal priority of actuality at the end of the *next* argument, i.e. the argument for the substantial priority of actuality. Regarding this third kind of priority, the philosophical significance of the relation is much more apparent as the argument unfolds, and at its end Aristotle finishes by reiterating ("and just as we said" 1050b4) his position about the temporal priority of actuality. On my reading of the text, temporal priority and substantial priority are related in such a way that it is only by connecting the two that the true significance of temporal priority can be properly explained. Therefore I shall postpone my explanation of why the temporal priority of actuality is metaphysically significant until I have gone through my account of substantial priority, and then connect

the two together as I believe Aristotle intended. We shift gears a bit in the following chapter, because the course of the overall, long argument for the priority of actuality now becomes more difficult and more controversial, as will become clear in what follows.

Chapter 2: Priority in Substance

Actuality is prior to potentiality in substance (ousia). In this chapter, we will be concerned with understanding this key contention of Aristotle's and analyzing the argument by which he attempts to establish it. Here we are moving onto material the interpretation of which is very controversial. However, it is not controversial that this text is of especially high importance for Aristotle's metaphysical theory, and so part of the goal here is to discuss why this is so. In this chapter, my aim is primarily to establish my own interpretation of Aristotle's position; there is too much going on in the writings of other interpreters to try to do justice to them at the same time. Accordingly, in the following chapter we will revisit those aspects of Aristotle's argument that have been interpreted differently by others, and I will offer my criticisms and further defend my position.

To be clear, we are here dealing with the *third* argument in $\Theta 8$ for the priority of actuality (from 1050a4–b6). There is yet a fourth argument that begins immediately thereafter, which will be taken up later. On my view, this fourth argument should *not* be understood as a continuation of Aristotle's argument for the priority of actuality in substance, though some others have indeed taken it in that way (but more on this later). Let us now look at the opening parts of the third argument, and note some important points.

Moreover, actuality is prior in substance as well. Firstly, because what is posterior in generation is prior in form and in substance. For example, man [is prior] to boy, and human being to seed; for the one already has the form but the other does not. Additionally, because in every case [of generation] the thing coming to be proceeds towards a principle, i.e. its end; for the thing that

something is for the sake of is its principle, and generation is for the sake of the end; and the actuality is an end, and the potentiality is acquired for the sake of this [end]. For animals do not see in order that they may have sight but they have sight in order that they may see; and similarly one has the builder's art in order that he may build and one has theoretical science in order that he may theorize; but people do not theorize in order to have theoretical science (except for those practicing it—but they do not *theorize* but rather [act] in such a way). ¹² (1050a4–14)

The things that come later in generation are prior in form and in substance to the things that come before. For example, man is prior in substance to boy; this is evident because the man, coming at the end of the generative process, has the form, while the boy, coming earlier, does not yet have it. The mature organism that has the full form and that comes at the end of generation is prior in substance to the immature organism that lacks the full form.

The first important point to take note of is that Aristotle at the outset talks as though priority in form is equivalent to priority in substance. He says, "What is posterior in generation is prior in form and (*kai*) in substance" (where *kai* is explicative, meaning something like "i.e."). Form and substance are somehow linked, but it is not clear how. When we get to the end of the argument later on, Aristotle concludes, "Thus it is evident that substance and (*kai*) form is actuality. According to this argument then, it is evident that actuality is prior in substance to potentiality" (1050b2–4). It looks like once we are clear that form, the primary substance from books *Zeta* and *Eta*, is actuality, we can conclude that actuality is prior in substance to potentiality. So, how is this connection between form and actuality supposed to be established? And is the priority already

¹² There is a rather serious and deeply puzzling textual problem at line 14. See Appendix B for my treatment of it.

shown to belong to substantial form in ZH relevant here? These are questions that we need to be mindful of as we proceed through the argument, and to which we will return later on.

The second important point is that if actuality *is* supposed to be understood as form in the end, and it looks as though it should be, then actuality *cannot* be prior in substance to potentiality in the exact same way in which man is prior in substance to boy. This is because the man *comes to be* in the process of generation, yet form does *not* come to be, a point that was stressed repeatedly in *Zeta* 7–9. It is the man that comes to be, not his form. It looks, then, like the notion of priority in substance applicable to the actuality/potentiality relation (the one the argument as a whole is meant to establish) is not going to *simply* be taken from that of the man/boy relation, or the seed/human being relation. We should therefore at least be open to the possibility that there is not simply one and only one notion of substantial priority in this argument. Other interpreters have not, I do not think, appreciated this possibility. It is something to which we will have to return in due course.

What other interpreters have noticed, however, is that Aristotle does not always mean the same thing by "priority in substance." There are multiple discussions of substantial priority throughout the corpus, and it is fairly clear that Aristotle cannot mean exactly the same thing by this term in each of them. Now it is incumbent on the interpreter of $\Theta 8$ to incorporate external discussions of substantial priority drawn from elsewhere in Aristotle's writings. This strategy is required because Aristotle says virtually nothing here, in $\Theta 8$, about what priority in substance amounts to; yet an

explanation is surely needed in order to understand the argument properly. Others have thought it fitting to base their interpretations of substantial priority in $\Theta 8$ on the definition given in *Metaphysics* $\Delta 11$. There Aristotle writes, "[Things are said to be prior] in respect of nature and substance [in the following way]: those which admit of being without others, but the others cannot be without them" (1019a3–4). However, it is controversial whether this Δ text is useful for the present argument in Θ , as we will see in the next chapter. Below I will argue that the most helpful external discussion of priority in substance comes not from the *Metaphysics* but from the *Physics*, and in the next chapter I will take up the relevant parts of the controversy in detail. But for now, let me proceed to construct and defend my own interpretation. In the subsequent chapter, I will give my reasons for believing it superior to the others that are available.

* * *

Now, a noteworthy (and uncontroversial) feature of the argument's beginning is that Aristotle has given several examples of the priority in substance relation as it pertains to *correlative* instances of sublunary potentiality and actuality: man is prior in substance to boy, human being to seed, the activity of seeing to the capacity for sight, the activity of building to the art of building, and the activity of theorizing to the ability to theorize. The first two examples are of natural substances, and the latter three are of capacities which substances possess. Additional examples illustrating the priority in substance relation are given later in the argument. A thoughtful consideration of Aristotle's numerous examples is one important element in developing an interpretation of what Aristotle

means by the proposition, and his ultimate conclusion, that actuality is prior to potentiality in *ousia*.

Turning now to the details of the argument, Aristotle begins by stating that things that come later in the process of generation are prior in form (and in substance) to the things that come earlier. This is because the beings at the end of the process are fully developed and have the form, while the beings of earlier stages do not yet have the form but are still developing. Man already has the form (ἤδη ἔχει τὸ εἶδος), but boy does not. The emergence of a man comes at the end of a process of coming to be, while the emergence of a boy occurs well before the end of the process. The boy, moreover, is potentially a man, and the man he becomes is a man actually. Since it is the actual man which has the form, while the potential man does not yet, the former is accordingly prior in form to the latter. Of course, this does not prove that *actuality* is prior in substance, since there are various other ways in which actuality and potentiality can be instantiated. While the generation of natural substances exhibits important instances of dunamis and energeia, artefacts and the various kinds of capacities (like sight, house-building, and theoretical science) also instantiate dunamis and energeia in importantly different ways. These other cases need to be considered before drawing any general conclusions regarding substantial priority between *dunamis* and *energeia*.

Additional support for a priority relation comes from Aristotle's teleology and the way *dunamis* and *energeia* are teleologically related (a7–14, beginning with *kai hoti*). Aristotle assumes here that if x is a principle $(arch\bar{e})$ of y, then x is prior to y in some

way; this is a trivial consequence of being an *archē*. So if actuality is a principle of potentiality, actuality is accordingly prior to potentiality in some way.

The argument has several steps. Aristotle holds that generation is for the sake of an end (telos), and whatever a thing is for the sake of is a principle of it. Since every coming-to-be thing (to gignomenon) is for the sake of something, if potentialities are coming-to-be things, then whatever they are for the sake of are their principles. And, clearly, he holds that potentialities are acquired for the sake of actualities, and that the latter are ends of the former. The point is made here with a reference to capacities in particular (though the main idea could presumably be extended to natural substances as well). Capacities are for the sake of their exercises. A capacity is acquired (lambanetai) precisely in order to attain some goal or end (telos), and the exercise of the capacity is the goal of acquiring the capacity: "actuality is an end, and potentiality is acquired (lambanetai) for the sake of this [end]" (a9–10). One acquires the art of building in order to build, and nature bestows on animals the capacity for sight in order that they may see (a10–12). The converse type of case is not only false but in fact impossible. Nothing that lacks the capacity for sight can see, and so seeing could never be done for the sake of acquiring the capacity: "Animals do not see in order that they may have sight but they have sight in order that they may see" (a10–11). Similarly, no one can build who lacks the art of building, so the act of building could never be undertaken for the sake of acquiring the art.¹³

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¹³ Artistic or professional building could never be done without the art. Amateur building no doubt could be, but building at an amateur level is not the goal of acquiring the art. Makin, $Book\ \Theta$, 187–92, has a

Now, importantly, the position asserted here at the outset, that actualities are the ends ($tel\bar{e}$) of their correlative potentialities, is not something Aristotle thinks he can adopt so easily. One worry here is that in the cases of capacities that have some artefact as their end (such as house-building, where the end is manufactured houses), it seems that the artefact produced—not the exercise of the capacity—ought to count as the telos, and hence the $arch\bar{e}$ of the capacity. While the ends of some capacities are simply activities, such as the activities of seeing and theorizing, other capacities aim at the production of an external product. Part of Aristotle's remaining argument is devoted to establishing that in all cases, the capacity is for the sake of the activity and the activity is a telos of the capacity. We will accordingly return to this issue at a later stage of the argument. ¹⁴

While the teleological point Aristotle makes with reference to capacities and their exercises can also be extended to natural substances (the immature natural substance is for the sake of the mature one, as boy is for the sake of man), there do seem to be at least two important differences between the two kinds of cases. First, a person as such does not naturally grow or develop into a builder, while a boy as such does naturally grow or develop into a man. While some capacities, such as the capacity to see and the capacity

noteworthy discussion about what is involved in cases where learners are engaging in an activity for which they simultaneously lack the capacity, e.g. an apprentice actually building who is not yet a builder. The issue will return below (cf. 1049b33-4).

¹⁴ The famous $kin\bar{e}sis/energeia$ distinction found in $\Theta6$ should come to mind here. However, I will ignore it in this context because its terminology conflicts with $\Theta8$. In $\Theta8$, kinēseis are a subset of energeiai, not their contraries, and the distinction Aristotle makes in Θ 8 is between two kinds of *energeiai*. Moreover, the kinēsis/energeia distinction was not originally a part of book Θ , but was a later insertion apparently taken from a now lost work of Aristotle's. It is found in only one of the two manuscript traditions. For details, see what will certainly become the classic treatment of this passage: Myles Burnyeat, "Kinēsis vs. Energeia: A Much-Read Passage in (but not of) Aristotle's Metaphysics," Oxford Studies in Ancient Philosophy 34 (2008): 219–92.

to walk, come to be by nature (as do natural substances), others clearly do not (such as the art of medicine and the art of house-building). Furthermore, while a teleological process of development is undergone when a boy becomes a man, it might seem that no such developmental process exists in the case of capacities and their exercises. That is, the art of building is for the sake of building, yet the builder does not develop into something he was not before when he exercises his art; similarly, the organism does not develop into something it previously was not when it wakes up and sees. The builder and the seer may change when they activate their capacities, but they do not develop into beings with higher degrees of substantiality simply by exercising their acquired capacities, and they will no doubt frequently return to their prior states of inactivity.

Now I claim that it is important to realize that this second apparent difference between capacities and natural substances needs to be reconsidered, and that there is in fact an important parallel teleological process of development in both cases. Identifying the perspective from which to discern this parallel process is essential to understanding Aristotle's argument properly. One must think about capacities like sight and the art of building at a period of time during which the capacity has yet to be acquired. The embryo will develop the capacity for sight during its course of development into a human being, a development which will eventually culminate in the actual acts of seeing done by the more mature organism. The man who is not yet a builder but who wishes to become one will seek to acquire the art, and his acquisition of it will culminate in his (non-amateurish) acts of building. The relevant point of view here takes into account the state of the subject *before* it has acquired the potentiality in question and the later state of the

subject when it is actually exercising the capacity it has acquired. Again, Aristotle explicitly states that the potentiality is acquired or taken on (*lambanetai*) for the sake of a particular end, i.e. the correlative actuality (a9–10). The state of prior possession of the capacity is to be contrasted with the future state of exercising the acquired capacity. It is the teleological course of development *from* lacking the capacity altogether *to* exercising the acquired capacity that corresponds to the stages of development in natural substances. In both kinds of cases, a thing undergoes a process of development resulting in the manifestation of a distinctive feature or set of features that it lacked before (e.g. by building a house, or by engaging in practical reasoning). On my interpretation of priority in substance (as will emerge below), it is the fact that these later exhibited features of an entity constitute an enhancement or improvement in relation to its earlier stages which captures the priority enjoyed by things emerging later in generation (τὰ τῆ γενέσει ὕστερα). These features make the being which has them more perfect and more complete.

There are, however, other ways in which capacities and their exercises (sight/seeing, art of building/building, theoretical science/theorizing) importantly differ from immature and mature natural substances (boy/man, embryo/human being). They instantiate potentiality and actuality in different ways. In the case of natural substances, the natural kind or species to which both the actual human and the potential human belong is the kind human being. In the case of capacities, like the art of house-building, the natural kind or species to which the actual and potential house-builders belong is not the kind house-builder, but again the kind human being. Possessors of capacities have

their own independent natures or essences, and they reproduce additional instances of their kind; the offspring of a man who is a builder is not a builder, but a human. If we ask the question 'what is it to be a this?' for a builder or for something that has the capacity for seeing, the answer will not contain an account of building or of seeing but an account of the kind human, or dog, etc., depending of course on the specific kind of thing which has the capacity in question.

Another significant point of contrast between capacities and natural substances is that in the latter, once the potentiality is realized, it is *permanently* realized. Men do not grow back into boys, and human beings do not grow back into embryos. The activity of seeing, however, does lapse back into its correlative potentiality when the seeing agent ceases to see but still retains the capacity for sight, as when it sleeps. Similarly, the activity of building often ceases to exist, yet the capacity for that activity remains, as when the builder finishes the house.

Another difference is that in cases of natural generation, once the potential has become actual, not only does the actual persist (until the destruction of the organism) but the potential ceases to exist altogether. The actual man is no longer potentially a man. By contrast, the animal that is actually seeing continues to have the capacity for sight. The actualization does not coincide with a termination of the potentiality as in cases of substantial generation. Similarly, when the builder actually builds, he does not lose his *dunamis*, i.e. his art of building; yet after a boy develops into a man, the *dunamis* for becoming a man is gone. Potentialities such as vision and the art of building are potentialities acquired by an agent and can be lost without the termination of their

possessor. In the case of vision, the potentiality is acquired naturally as part of the organism's development; in the case of building, the potentiality is acquired artificially by deliberate study, and much later on in life. By contrast, insofar as a boy is potentially a man, the loss of this potentiality will always coincide with the termination of something's being a boy, either via his subsequent stage in development or by his death.

Now the proper interpretation of Aristotle's argument must be able to accommodate these important differences in the ways that correlative potentiality and actuality are instantiated. There is nothing in the text which suggests that activities are prior in substance to capacities in a different sense from that in which adult organisms are prior in substance to immature ones. On the contrary, Aristotle maintains there is one particular priority relation that holds univocally for all of the previously mentioned instances of correlative potentiality and actuality. House-building must be prior in substance to the art of house-building in the same sense in which man is prior to boy. There are not two different senses of substantial priority applicable to Aristotle's different sets of examples. What is needed, then, is an account of how man is prior to boy in the very same way that seeing is prior to the capacity for sight (and similarly for the other examples). Only then can we address the further question of whether actuality is prior to potentiality in this very same way. For it may be the case that the *general* way in which actuality is prior in substance to potentiality is something that *emerges* from the priority relation found among his particular sets of examples.

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Let us continue to focus for now on the substantial priority found among Aristotle's examples. There are numerous texts in the corpus outside of Θ in which Aristotle discusses the phenomenon of priority, and in several of these he discusses priority in substance in particular. Since these various texts say different things, and may even contradict each other (a controversial issue), the interpreter's task is to identify those passages which are most relevant for understanding Θ 8. Other interpreters have, I think, mistakenly privileged certain texts over others for interpreting substantial priority in Θ 8, which has resulted in a failure to understand the relation properly. I will take up these issues with other interpreters in the next chapter, but for now I focus on the Aristotelian texts external to Θ 8 that I believe are most relevant.

In *Physics* 8.7, Aristotle argues that locomotion is prior to all other forms of motion (to increase and decrease, and to alteration, 260a26–9) and that the eternally continuous motions of the eternal sensible substances are the primary motions upon which all other motions (or changes: *kinēseis*) depend. It is not necessary to explore this topic in detail, but what is of interest are some of the remarks Aristotle makes in this discussion. He notes:

It is true indeed that, in the case of any individual thing that has a becoming, locomotion must be the last of its motions; for after its becoming it first experiences alteration and increase, and locomotion is a motion that belongs to such things only when they are perfected. (260b30–3, *Revised Oxford Translation*)

In the case of individual perishable substances, locomotion is the last kinetic ability acquired in their development. Beginning from the time of conception, a developing organism first grows and alters, and only later on develops the features that enable it to

move around on its own. Becoming and alteration are prior in time to locomotion, while locomotion emerges only when the developing organism is further advanced in its development, i.e. when it is more perfected and complete and has realized more of its form.

Now what I think is a key passage for interpreting $\Theta 8$ is also found in *Physics* 8.7 several lines later. Of the whole corpus, this passage is the one which most resembles the passage from $\Theta 8$ on substantial priority quoted above (particularly 1050a4–10).

In general, that which is becoming appears as something imperfect (ateles) and proceeding to a principle $(arch\bar{e})$; and so what is posterior in the order of becoming is prior in the order of nature. Now all things that go through the process of becoming acquire locomotion last. It is this that accounts for the fact that some living things, e.g. plants and many kinds of animals, owing to lack of the requisite organ, are entirely without motion, whereas others acquire it in the course of their being perfected. Therefore, if the degree in which things possess locomotion corresponds to the degree in which they have realized their natural development, then this motion (kinēsis) must be prior to all others in respect of being/substance (ousia); and not only for this reason but also because a thing that is in motion loses its being less in the process of locomotion than in any other kind of motion: it is the only motion that does not involve a change of being in the sense in which there is a change in quality when a thing is altered and a change in quantity when a thing is increased or decreased. Above all, it is plain that this motion, motion in respect of place, is what is in the strictest sense produced by that which moves itself; and it is the self-mover that we declare to be the principle of things that are moved and impart motion and the primary source for things that are in motion. (261a13-26, Revised Oxford Translation, modified)

This passage from the *Physics* and the $\Theta 8$ passage make similar points using similar language. They both state that in the case of individual perishable substances, there is an inverse relation between priority in becoming and priority in substance (or in nature, another term for the same). Things posterior in becoming are prior in nature or in substance. What the *Physics* passage gives us is further elaboration on what this

¹⁵ See Appendix C for more details.

substantial priority relation consists of. Priority in substance is a kind of priority in perfection or completion. The sort of perfection relevant here is that which a developing thing has in its later stages of development but that it lacked in its earlier stages. Since locomotion emerges only when the developing organism has reached a more advanced level of perfection, while alteration and growth exist at earlier stages when the organism is less perfect, locomotion is prior in substance to alteration and growth.¹⁶

The *Physics* passage is concerned with making a point about locomotion in particular, but the point it makes about locomotion is an instance of the general principle that "that which is becoming appears as something imperfect (*ateles*) and proceeding to a principle ($arch\bar{e}$); and so what is posterior in the order of becoming is prior in the order of nature." This helps us further understand the way in which man is prior to boy, and human being to embryo, in $\Theta 8$. The boy is prior in the order of becoming to man, and is accordingly less complete and perfect than the man he later becomes. The process of becoming is itself a perfecting of a being which at earlier stages is a boy and at its final stages a man.¹⁷ This being has the full form in its final stages, but lacks it in its earlier ones; and this relation is sufficient in $\Theta 8$ for establishing substantial priority in the case of natural substances.

But when we turn to cases like sight/seeing, art of building/activity of building, and theoretical science/theorizing, the same argument cannot simply be reiterated. Aristotle cannot say that seeing (the actuality) is prior in form and substance to sight (the

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¹⁶ In *De Caelo* Aristotle writes "the complete thing (*to teleion*) is prior in nature to the incomplete thing" as evidence that circular motion is prior to linear motion, since a circle is *teleion* but a line is not (269a18–20).

¹⁷ What about death?—not a stage of *genesis*, nor the *telos* of anything natural. cf. *Meta*. H5.

potentiality) since seeing has the form but sight lacks it. That explanation is untenable here and for capacities generally. Yet an important parallel between capacities and natural substances is specifiable in terms of degrees of perfection and completeness. The actual seeing done by the organism represents a more perfected and completed stage of development than the earlier stages when the organism was still developing its capacity for sight, i.e. while its eyes were still growing and/or were not yet open. Similarly, the actual building done by the professional builder represents a more perfected and completed stage of development than his earlier stages of intending to become a builder and his study as an apprentice. This priority in the perfection and completeness of the later developmental stages over earlier ones is found, not only among actuality and potentiality as they are instantiated by natural substances, but also among instantiations of capacities that substances possess. In the case of artefacts, the centrality of perfection and completion is also apparent. The existence of an actual artefact represents a more perfected and completed stage of production of the artefact than the earlier stages of the unassembled or partially assembled matter. The completed artefact has the form, while the potential artefact, the matter, does not. Thus, actual artefacts are prior in substance to potential artefacts of the same kind. That this line of interpretation is on the right track is, I think, confirmed by the next stage of Aristotle's argument in Θ 8.

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(A) Furthermore, matter is potentially φ because it would [normally]¹⁸ go towards the form; and whenever it is actually φ , then it is in the form. (B) And

¹⁸ I follow the reading of Burnyeat *et al.*, *Notes*, 142, in interpreting Aristotle's optative ἔλθοι ἄν as 'would normally except in odd cases', but my subsequent interpretation is not dependent on this reading.

this is similarly true in the other cases as well, even in those of which the end is a movement ($kin\bar{e}sis$). (C) Wherefore just as it is when teachers display [their pupil] actively doing (energounta) [what they have been teaching him] that they think they have presented their end (telos), (D) so similarly it is with nature. For if it results not in this way, what we get is the Hermes of Pauson; for it is unclear then whether the knowledge is inside or outside [of the teachers' pupils] just as in [Pauson's Hermes]. For the work (ergon) is an end, and the activity (energeia) is the work; wherefore the term energeia is derived from ergon and connotes fulfillment (entelecheia). (1050a15–23)

- (A) Once again, form is identified as being present at the end of a temporal development, but not yet present (or at least not fully present) in the earlier stages. Moreover, the full presence of the form is concurrent with the thing's arriving at the state of being actual and no longer merely potential. For example, a collection of bricks and boards (and whatever else) that is potentially a house does not yet have the form and is not yet an actual house. When the builder finishes the house, the previous materials are now actually a house and have the form (or are "in the form": ἐν τῷ εἴδει, a16).
- (B) Aristotle then notes that something that holds for potentiality and actuality as they relate to matter and form also applies to other cases of potentiality and actuality.¹⁹ The other cases he has in mind are capacities and their exercises, both those which result in a product and those which do not. Aristotle will argue for an important similarity shared by these two different ways (matter and form/capacity and activity) in which *dunamis* and *energeia* are instantiated.
- (C) How do teachers know that their pupils have really learned something new and that they have successfully fulfilled their teaching objectives? Aristotle claims it is when the pupil can be presented doing the thing taught all by him- or herself, without any

¹⁹ See Ross's comm. ad loc., 263.

help from the teacher. For example, only when the apprentice can be observed building houses without any assistance from the teacher can we be satisfied that he has learned the art. Even if the apprentice has successfully built houses under the teacher's guidance, it does not follow that he has acquired the art. The knowledge may not have been internalized, and the apprentice may have succeeded only through the help of the teacher, an external source of knowledge. Aristotle relates here how the end of the pupils' education is not properly the having of the new skill or knowledge, but rather the putting into practice of what they have been taught; the pupils advance from a state of not having the skill or knowledge to exercising their newly acquired capacities (i.e. to second actualities, as they are often called). It is their successful, independent doing of the thing they have been studying that proves they have been educated, and the teacher's goal is to bring the pupil to this state of success.²⁰

(D) Aristotle then says, 'nature works like that' ($\kappa\alpha$ ì ἡ φύσις ὁμοίως). The reason nature bestows the capacity for sight on various organisms, for example, is so that these organisms can actively see. The proper goal is not simply to have the capacity, but to do those very things that constitute the exercise of the capacity. There is a process of development, e.g. the growing of eyes, which culminates with the actual acts of seeing done by the sighted organism. The seeing is the *energeia*, the *archē* and *telos* of the

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²⁰ If the pupil is not displayed successfully doing the thing in question, but has finished the training, what we get is like the Hermes of Pauson: we cannot tell whether the pupil has the knowledge or not. No one seems to know for sure what this Hermes was. The best guess seems to be that of Professor Percy Gardner who, according to Ross, 'suggests that the Hermes may have been a tricky painting, which deceived the eye somewhat in the manner of those in the Wiertz Gallery at Brussels, which stand out, apparently, in high relief from the canvas' (*comm.*, 263–4). One rightly asks, Is the Hermes in or outside of the painting? Similarly, is the knowledge really in the pupil or not?

capacity for sight. Nature develops the capacity in the organism for the sake of the exercise. Similarly, there is a process of development by which a human being goes from not knowing anything at all about building houses to the activity of building houses. Build*ing* is the *energeia*, the *telos* of acquiring the art of building. People acquire the art of building in order to exercise it, to engage in the activity of building houses, as evidenced by teachers' display of their educated pupils. The work (or work*ing: ergon*) is the end, and the activity (*energeia*) is the work (a21–2).

Now a boy is a man potentially because he has his own internal principle (his *phusis*) which makes him develop, over time, into a man. When the boy becomes a man, he displays features and abilities that either are new or at least are more complete and perfect than the ones he had before (e.g. he can now reproduce, and is stronger and more rational). Man is prior in form to boy because man has the form and boy does not. But what having the form amounts to is, in part, having a set of features (e.g. intelligence, strength, size) that are enjoyed by the mature members of the species: adults represent the completion of children's natural development. It is this concept of degrees of perfection or completeness that is at the heart of Aristotle's concept of priority in *ousia* in the discussion of his various examples. Adults are prior in substance to children because they exhibit the features that children either lack or have only to a lesser, undeveloped extent, but which they are on course to fully acquiring.

Now the same phenomenon also holds for capacities, and not just for substances themselves. This is one of Aristotle's main contentions in $\Theta 8$ and is central to establishing the intended conclusion. There is an important parallelism between the

activity of building, for example, and exhibiting a natural feature which only adult members of a species possess. The builder building (at a professional level) manifests a level of perfection that is superior to, and represents an advancement upon, the level achieved by beginning and intermediate builders. Students strive to develop into professional builders, to arrive at a more perfect and completed state, just as a thing's nature works to transform it from an immature organism into a complete and mature one—into an adult. Similarly, an organism that is actively seeing represents a stage of advancement in relation to those immature organisms still developing the capacity for sight. Nature will eventually (if there are no obstructions) perfect the organs for sight to a level at which they function properly and with which their possessor can now actively see.

Now it is important to remember that regarding priority in substance, as applicable to capacities and their exercises, it is (for example) the *art* of building that the *activity* of building is prior in substance to. Aristotle is not claiming that the builder is prior in substance to the non-builder or to the potential builder. And it is easy to see why developed, functional limbs are prior in substance to undeveloped ones, and why developed, functional eyes are prior in substance to eyes that are still growing: they are perfected instances of what the undeveloped organs are still *en route* to becoming. But the priority of the developed limbs and organs over the undeveloped, while certainly relevant, is not what Aristotle is arguing for in Θ8. He wants to conclude that the *exercises* of the capacities are prior in substance to the capacities themselves. An explanation is sought, not for why developed eyes are prior in substance to undeveloped

ones, but for why seeing is prior in substance to the capacity for sight. So formulating how the priority relation holds in these cases is not as straightforward as it is for natural substances. For natural substances, the things at the end of the generative process are what are prior in substance (τὰ τῆ γενέσει ὕστερα), and the earlier things are posterior.

Since both teachers and nature aim to exhibit the possessors of potentialities fully engaged in their realizations, we can bring to light part of the parallelism between exercises of capacities and mature substances by looking more closely at this commonality. A capacity comes to be through either a natural or an artificial process of development, and what comes at the end of the process is the activity resulting from the acquired capacity. A capacity is taken on for the sake of the activity constituting its exercise, just as a developing human becomes a child for the sake of eventually becoming an adult. Capacities are always exemplified by some feature a being has (whether it be a functioning organ, or a form (as medicine) in the soul). Their exercises represent a further stage of perfection in the sense that they verify the presence of the functional feature. The presence of eyes alone does not guarantee that their possessor can actually see (since some 'eyes' are non-functional in an otherwise healthy organism), just as the mere participating in an apprenticeship or any other educational program does not guarantee that the knowledge has been internalized in the individual's own soul. And the features a being has which constitute a capacity (such as a functional pair of eyes) are for the sake of the activity undergone when the being uses them (i.e. the seeing it does).

Similarly, the changes the boy undergoes and the features he develops are directed towards the completed realization of his form. The natural development the boy

undergoes is in some respects indistinguishable from his acquiring and perfecting of certain capacities. The boy develops the ability to run and the ability to speak a language for the sake of later, more mature and perfected uses of the same as an adult. As an adult, he can now run steadier and faster, and can engage in adult-level discourse.

The above discussion covers a central part of Aristotle's answer as to why exercises are prior in substance to capacities. There is a generative process of capacities (whether they be natural or artificial) which culminates with the exercise as exhibiting a further level of perfection and completeness of its possessor, just as the generative process of substances results in perfected and mature organisms. Yet this is not the end of his argument. More of the parallelism between substances and capacities will be filled in below.

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The final section of Aristotle's argument runs thus:

And since the exercise (*chrēsis*) is a terminus (*eschaton*) of some (for example seeing [is the terminus] of sight, and no other thing comes to be from sight besides this), but from others a thing does come to be (for example a house comes to be from the art of building in addition to building itself), nevertheless [the exercise] is no less an end (*telos*) in the former sort of case, and in the latter it is more of an end than the capacity; for building is in the thing being built, and it comes to be and is at the same time as the house.

So for all of those for which there is in addition to the exercise, some other thing which comes to be, their actuality is in the thing being made (for example, the building is in the thing being built, and the weaving is in the thing being woven, and similarly for the others as well: in general the movement (kinēsis) is in the thing being moved); but for all of those for which there is no other product (ergon) in addition to the exercise, their actuality inheres in them (for example, the seeing is in the one seeing, and the theorizing is in the one theorizing, and the life is in the soul—wherefore happiness is so as well; for it is life of a certain kind.) Thus it is evident that the substance or form is actuality. According to this argument then, it is evident that actuality is prior in substance to potentiality; and

as we said, each actuality is always preceded in time by a distinct one, the one which (in each case) moves it initially.²¹ (1050a23–b6)

In this section of the argument, the distinction between those capacities which, when exercised, result in a product and those that do not (e.g. seeing) is clearly at the forefront. One conclusion Aristotle is driving at is that in either case, the exercise of the capacity is an end (*telos*) of the capacity. He is giving additional justification for a proposition utilized earlier in the argument, namely, that an actuality is the *telos* of its correlative potentiality (a9).²² In addition to justifying this proposition, he is also elaborating on why exercises are prior in substance to their correlative capacities. This latter point is harder to see, and it needs some fleshing out. I will comment on the former conclusion first, and then take up the less transparent one.

Aristotle contends that for both product-yielding and non-product-yielding capacities, the exercise of the capacity (the *energeia*) is a *telos* of the capacity: building is a *telos* of the art of building, and seeing is a *telos* of the capacity for sight. In the former kind of case, one might doubt that the exercise should count as an end; one might think instead that only the product should, that the *telos* of the art is simply the resulting products. In the latter kind of case (where there are no products), one might doubt that the exercise counts as an end, on the grounds that only a product is the kind of thing

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²¹ The last bit is ambiguous: καὶ ὅσπες εἴπομεν, τοῦ χρόνου ἀεὶ προλαμβάνει ἐνέργεια ἑτέρα πρὸ ἑτέρας ἔως τῆς τοῦ ἀεὶ κινοῦντος πρώτως. Ross, comm., 264, and others (see Burnyeat et al., Notes, 144) construe a theological reference here. On my reading, ἔως marks the answer to the question: by what length of time does the distinct actuality precede the one in question? Answer: as far back as the initial mover (e.g. the father or the doctor). This point was made earlier ('as we said') in the preceding discussion of priority in time. Other denials of the theological reference are found in Burnyeat et al., Notes, ad loc.; Makin, Book Θ, 203–4; and Dancy, "Priority," 94–5. For a passage in which aei is in the attributive position but must be taken distributively, see Λ6 1072a6–7.

²² Energeia is an $arch\bar{e}$ of the correlative dunamis (and so prior to it), and the kind of $arch\bar{e}$ it is is a telos (a7–10).

which is an end of a capacity, and the exercise is not a product. Or perhaps one might think that the end of sight is something like unhindered motion, i.e. moving around successfully in one's environment, registering danger and discerning food, etc., and not the act of seeing itself.

In the case of capacities that yield a product, their exercises inhere in something that is unquestionably a *telos*, namely, the resulting product. And we know from other texts of Aristotle that the product is a *telos* of the *technē* (or *epistēmē*) in particular (i.e. of the *dunamis*). Consider the beginning of the *Nicomachean Ethics*:

The ends [that are sought] appear to differ; some are activities, and others are products apart from the activities. Wherever there are ends apart from the actions, the products are by nature better than the activities. Since there are many actions, crafts, and sciences, the ends turn out to be many as well; for health is the end of medicine, a boat of boat building, victory of generalship, and wealth of household management. (1094a3–9, trans. Irwin)

Moreover, Aristotle argues at *Physics* III.3 that the actuality of that which has the potentiality for *being* changed (e.g. the product) and the actuality of that which has the potentiality to *cause* the change (the artisan) are both (1) in the patient (the thing being changed), and (2) one and the same actuality, though not the same in definition (see 202a13–21). What it is to teach differs from what it is to learn, though the actualities learning and teaching are one and the same and both are in the learner (202b11 *et passim*). So the exercise of a product-yielding capacity is in something which is unquestionably a *telos* of the capacity, and the *energeia* of the capacity is one and the same thing as the *energeia* of the product, i.e. the realization of the *dunamis* had by the materials for being a product.

Applying the lesson of *Physics* III.3 to the argument in $\Theta8$ makes more intelligible the way in which the exercise of a product-yielding capacity is an end of the capacity. In the case of house-building, becoming a house and building a house are the same; in other words, the transformation of a set of materials into a house and the making of them into a house are the same event (but not the same in definition). And becoming a house is the very same as acquiring a certain form; the *telos* directing the project is the complete acquisition of form by the materials. The form is increasingly realized at successive stages of the building process, and the product itself is partially constructed at each of these non-final stages. The build*ing* of the house, the coming to be of the house, and the taking on of the form are all the same.

Recall a claim Aristotle had made earlier in the argument: 'matter is potentially φ because it would [normally] go towards the form; and whenever it is actually φ , then it is in the form' (a4–16). Recall also that he then sought to show that this holds likewise ($\delta \mu o(\omega \zeta) \delta \epsilon$) for capacities and their exercises. We can now further see why it does so for cases of product-yielding capacities. The exercise of these capacities, the *energeia*, just is an acquiring of form (though with a different definition): whenever a capacity is exercised, form is being acquired by the product coming to be; the exercise is *in* the emerging product, and inseparable from it. The unquestionable teleological status the product has is also enjoyed by the exercise: 'build*ing* is in the thing being built, and it comes to be and is at the same time as the house' (a28–9). The finished product may be better by nature than the exercise of the capacity, as stated in the *Ethics*, but the exercise is still *more of an end* ($\mu \tilde{\alpha} \lambda \lambda \rho v \tau \tilde{\epsilon} \lambda \rho c$) than the capacity (a28).

As for cases of capacities and their exercises that do not result in a product, it is more readily apparent here that the exercises are ends of the capacities. The *energeiai* here are precisely what the *dunameis* are acquired for. Aristotle does not, as far as I can tell, give any additional justification for this position; he apparently thinks it needs no argument, and so I will not attempt to construct one on his behalf. One could rightly wonder, I think, what the teleological relation is between the capacity for sight and things like discerning food and successful locomotion. If these are to count as ends of the capacity, that fact might undermine the teleological status of the activity itself. However, I will not pursue this consideration further.

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Now, there are several ways in which this final section of the argument further elaborates on the substantial priority of exercises in relation to their correlative capacities. One of the concluding remarks of this last section of the argument is, "Thus it is evident that substance or form is actuality" (1050b2-3). Aristotle concludes a continuous line of thought begun back at 1050a15. The initial sentence was, again, "Furthermore, matter is potentially φ because it would [normally] go towards the form; and whenever it is actually φ , then it is in the form," and this idea culminates with "Thus it is evident that the substance or form is actuality." It is not easy to follow the continuous line of argument here (which I admittedly broke into two sections). Aristotle first makes a general point about matter progressing to its enformed state. The enformed thing is posterior in generation to the unenformed, but is accordingly prior in form to it. The enformed is prior in substance because it displays the completion and perfection that the

unenformed lacks but is progressing towards. What Aristotle does in this passage (a15–b3) is examine the relation between capacities and their exercises insofar as they resemble the relation between unenformed matter and being enformed. Considering the parallelism here helps to establish the further and more important parallelism between capacities and natural substances. There is a uniform notion of priority in substance applicable to all of these cases.

One interesting parallel is that the matter of artefacts, when it reaches its enformed state, nevertheless continues to be potentially an artefact in the sense that the actual artefact could be disassembled and another one made in its place with the very same materials.²³ Similarly, when a capacity such as sight is exercised, the very same capacity can be reused later on for the realization of a numerically distinct activity of seeing. In both cases, a single *dunamis* gives rise to distinct instances of the correlative *energeia*. The capacity for sight continues to exist when the activity does since the animal can certainly go on to engage in separate acts of seeing after the current activity has finished (as when it sleeps); similarly, the materials that comprise a statue are still potentially a statue insofar as they could be used again to make a separate statue.

Aristotle also notes that the actuality of non-product-yielding capacities is in *them* (*autois* a35), which, based on the following parenthetical remark (a35–b2), I take to be the agents who possess the capacities. This is another parallel between matter and form and non-product-yielding capacities and their exercises. Whenever the matter is in the

²³ For further discussion of this point, see Charlotte Witt, *Ways of Being: Potentiality and Actuality in Aristotle's Metaphysics* (Cornell, 2003), 52–7, and Frede, "Aristotle's Notion," 191–2.

state of being enformed, the *energeia* is in the matter, i.e. is in that which is potentially the kind of artefact in question (and may at the moment be an actual one). Similarly, whenever the agent is (for example) seeing, the *energeia* is in the agent, i.e. is in that which potentially sees (and may at the moment be actually seeing). The *energeia* comes and goes in the thing that has the *dunamis*, and in both cases, when the *energeia* is present it is located in the thing that has the *dunamis*. Matter's being in the enformed state exhibits priority in substance over the unenformed state, and having the exercise in the agent is similar to matter's being in the enformed state.

In cases of natural substances, the facts are of course a bit different. The *dunamis* in question is the agent's *phusis* (1049b8–9), and this *dunamis* never leads to distinct instances of the *energeia*; no immature organism can ever become more than one adult individual. Yet when the organism is mature, it has an *energeia* in it, the very *energeia* the immature organism lacked since it did not yet have the full form. In all three cases of mature organisms, artefacts, and exercises, an *energeia* inheres in something, and there is accordingly some related thing which lacks it but has it potentially: the immature organism, the unenformed matter, and the agent not exercising its capacity (because it is sleeping, or simply doing other things), respectively.

Moreover, in cases of capacities which come to be by nature, an organism's having certain *energeiai* in it ($\dot{\epsilon}v$ $\alpha\dot{o}\tau\tilde{o}(\zeta)$) is inseparably linked to the acquisition of its form and its development into a mature member of the species. When a developing organism finally sees, moves around autonomously, or engages in practical reasoning, any of these activities will be further evidence that it has acquired more of its form. And

each of these *energeiai* inhere in the organism itself, just as its form does. Both the form's being in it and the *energeia*'s being in it display a state of perfection it has attained. Indeed, in some cases the manifestation of an *energeia* is inseparable from having the form, either because the capacity in question is essential to the kind (e.g. *anthropos* and the capacity for rational thought), or because it is necessary for it to exist (e.g. the capacity for breathing).

In cases of capacities that yield a product, the exercise is not in the possessor of the capacity but in the product (a30–4). Although the recurring exercises of a single capacity are parallel to matter's being in successive enformed states as it is continually reused, the respective locations of the *energeiai* are importantly different. Nevertheless, there does seem to be a parallel worth mentioning. The builder building differs from the builder not building insofar as the former is doing something the latter is not. An energeia is present when the builder builds, which is absent when he does not. Similarly, an energeia is absent when the matter is unenformed and when the organism is still immature; when the *energeia* is present, a more perfected product or organism, substantially prior to its predecessor, now exists. The builder's energeia is also accompanied by an increase in perfection or completeness, since the house is continuously being perfected as long as this energeia is present; yet this perfecting belongs to the external product, not to the builder himself. This parallel is perhaps a bit weak, but nevertheless worth mentioning. In any case, its tenuousness does not affect Aristotle's central argument for the substantial priority of the exercise over the capacity, which applies equally to both product-yielding and non-product-yielding cases. Again, it is the development *from* the non-possession of a capacity *to* the exercise of the acquired capacity that is central. The culmination of this development is similar to the arrival of the enformed state and to that of the mature organism. In all the cases, what comes at the end of the development is a perfected or completed entity. The perfected state is what teachers of the arts aim to exhibit their pupils as having attained, and nature works similarly ($\kappa\alpha$ i $\dot{\eta}$ $\dot{\phi}\dot{\phi}\sigma\iota\zeta$ $\dot{\phi}\dot{\mu}\dot{\phi}\dot{\phi}\sigma\zeta$). The development of the *dunamis* occurs before the manifestation of the perfected state (as it must), and is accordingly prior in generation to the *energeia* for the sake of which it was acquired. The *energeia* is clearly prior in substance to the *dunamis*, since, just as the presence of the locomotive ability manifests a higher level of perfection in an organism than its mere alteration and growth, it is the presence of the *energeia* which similarly manifests a further perfected state.

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We can finally return now to the main issues regarding Aristotle's overall argument. We want to know what he *means* when he concludes that actuality is prior to potentiality in substance in the context of correlative *dunamis* and *energeia*. Does he mean that the *energeia* is more perfected and complete than the *dunamis*? Well, no, this cannot simply be his meaning, since it is the *man* that is the perfected being in his example (in relation to the boy), yet the man is not himself the *energeia*, nor is the boy a *dunamis*. The *energeia*, or form, is in the man, or had by the man, and its presence manifests a level of perfection that the man himself has achieved. The *energeia* does not achieve any further level of perfection, since the *energeia* does not come to be (it comes, rather, from an external source, such as the father).

Now I claim that Aristotle wants to take the priority he has already shown to belong to substantial form and apply it to correlative *energeia* in $\Theta8$. In Zeta, Aristotle argued that it is form that has the greatest claim to count as primary substance given the other contenders—form is substance most of all, and substance is prior in all ways (Z1). Similarly, Aristotle wants to establish that actuality, in relation to its correlative potentiality, is more of a substance, or has a greater claim to be considered substance, than potentiality. This is easy in the case of natural substances, since their actuality just is their substantial form, and substantial form has already been shown to be primary; this is why such a small amount of the argument in $\Theta 8$ is devoted to natural substances. But Aristotle cannot simply say that since substantial form is prior in the order of being, and since substantial form is a correlative actuality, therefore everything else that is a correlative actuality is similarly prior in the order of being to its correlative potentiality. Such an argument would be blatantly fallacious. Rather, what he does is show how the nature of a particular priority relation, as it is found among natural substances, is similarly found among capacities and among artefacts, and thereby covers all the cases he is concerned with. This relation has everything to do with the phenomenon of perfection and completion, and, we may now add, with the intuitive connection between being perfected and thereby being more real, or more substantial, than what is less perfected. A man has a greater claim to be considered a substance than a boy, in part because the man is a more perfected version of what the boy is on course to becoming; the boy lacks what the man has but what his nature is directing him towards, and that makes the man more of a substance than the boy.

On my interpretation of this argument, what it means to say that actuality is prior in substance to potentiality is that actuality is more in the nature of substance than potentiality, or has more of a claim to be called substance than potentiality. Now there are a variety of ways that one might go about arguing for such a relation between any two given relata, and the best way will of course depend on the context. For example, we might argue that form has a better claim to be called substance than the compound of form and matter, since the compound is derived from the form, or gets its status as a substance from having the form realized in it (but not vice versa). Such reasoning does seem to be the sort of thing Aristotle had in mind in Zeta, and there is no need to appeal to priority in perfection there to establish the substantial priority of form. But when it comes to arguing that actuality is prior to its correlative potentiality, Aristotle does need to appeal to something like priority in perfection or completion, and substantial priority emerges from this quite naturally. If two relata are such that one is a more perfected and completed version of what the other is on course to becoming, it is fair to infer that the more perfected one is more real or more substantial than the less perfect, i.e. is a more real instance of what they both are, the one actually and the other potentially.

Of course, in order to have such a relation instantiated, it is not necessary that either of the relata actually be substances on Aristotle's considered theory of substancehood. Substantial priority of correlative actuality is found among artefacts as well as capacities and their exercises, even though artefacts are not themselves substances and neither are the exercises of a capacity. But it is fair to say that the finished house has a better claim to be called a real house than the unassembled matter of a house; and

similarly, the builder who is actually building has a better claim to be called a builder than someone in training; and correspondingly, the activity of building has a better claim to be called a real being than the capacity, in part because it is more of an end (*telos*) than the capacity (1050a28) and the capacity is taken on for the sake of an end, namely, its exercise (1050a7–10). The idea is that when given two relata that are both the same thing, one potentially and the other actually, the one that is that thing actually is more of a real being than the one that is it only potentially. But this is so only because the one is a *more complete and perfect instance* of what the other is striving to become, which was precisely what the bulk of Aristotle's long argument was concerned with. Substantial priority, therefore, in this context is grounded in priority in perfection or completion, which is the priority found among all of the various sets of examples Aristotle cites during the course of his argument.

Finally, we take note of the important fact that at the very end of his argument for the substantial priority of actuality, Aristotle refers to his earlier argument establishing the temporal and genetic (1050a3) priority of actuality over potentiality.

According to this argument then, it is evident that actuality is prior in substance to potentiality; and as we said, each actuality is always preceded in time by a distinct one, the one which (in each case) moves it initially. (1050b3–6)

Now I claim that the full significance of the priority relation Aristotle is trying to establish at this point in $\Theta 8$ can come out only by *combining* substantial priority with temporal priority. This is why he references the temporal priority of actuality, namely, because it is supposed to be understood *in combination with* substantial priority. In the case of temporal priority, the actuality that is prior in time is found in the moving cause,

the principle which makes what is potentially F come to be actually F through its role as an active agent (such as a father begetting offspring). Actuality comes at the beginning of generation, and it comes again at the end as well, since the finished product or mature offspring is fully actual, has the form, and is akin to the initial actual thing in the sense that it is now a more complete and perfect instance of its kind—it has come to be like its generator. Actuality is a principle of potentiality at both ends of the process of coming to be, since the moving cause is of course a principle, and what potentiality is taken on for the sake of is also a principle $(arch\bar{e})^{24}$ We of course know from the *Physics* that Aristotle thinks the formal, final, and efficient causes in a way converge into one in many Here, we see how actuality governs its correlative potentiality in a way cases. reminiscent of how the formal, final, and efficient causes together govern change, i.e. the movement from potentiality to actuality. Generally speaking, Aristotle contends that the world we inhabit, when properly understood, displays a certain kind of hierarchical structure with actuality as the primary member of that structure. But the point when applied here needs to be put in the proper context. Consider, for example, the kind of explanation Aristotle would offer for a particular natural substance, a particular man, say, an explanation for why this particular substance exists in the natural world. What needs to be explained, according to him, is why this form came to be present in this matter, and what principles are needed to account for that process. On his view, the explanation begins with the father and mother and ends with the full realization of form in the mature

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²⁴ Recall 1050a7–10: "In every case [of generation] the thing coming to be proceeds towards a principle $(arch\bar{e})$, i.e. its end; for the thing that something is for the sake of is its principle, and generation is for the sake of the end; and actuality is an end, and potentiality is acquired for the sake of this [end]."

organism; accordingly, there are certain restricted bounds that the explanation falls within, and Aristotle believes that these bounds are based on the way the world is actually structured in reality. Each individual organism is explained by appealing to its four causes. But, of course, there is more to be explained in the natural world than just particular individual substances. We want to know what are the principles governing the general phenomenon of coming to be and passing away, in addition to knowing the principles governing a particular individual. In the case of any series of natural offspring (grandfather, father, grandson, etc.) there is no first member of the series which functions as a principle of the series as a whole and is prior to every other member of the series. Indeed, it is only the proximately preceding member of the series that stands as a generating principle to any given member of the series. There is no reason, for example, to think that the form or actuality in the grandfather has a causal role for or is a principle of the potentiality found in the grandson, or boy, who is *en route* to becoming a man. On Aristotle's view, the explanation for an individual need go no further back than the father of that individual. But there are also, on his view, principles governing the series as a whole (the sun, for example), and indeed the natural world as a whole, and we would expect him to say something about the priority of these principles as well. And indeed, that is where he is going in the next argument when he begins to discuss the priority of eternal substances over perishable substances. The eternal substances possess actuality in a different way from perishable substances, since the actuality they have is not correlated with potentiality. And it will turn out that their way of being actual is prior to the ways of being found within the sublunary world. But this is a discussion for a later chapter. In the next, I will continue to defend my interpretation of Aristotle's argument for the substantial priority of actuality over its correlative potentiality in the context of the alternative interpretations put forward by others.

Chapter 3: Other Interpretations of Substantial Priority

Aristotle's argument for the priority of actuality in substance, discussed in the previous chapter, has been much discussed in the literature. In fact, it "remains the topic of vigorous scholarly debate," as an author of one such interpretation has recently noted.²⁵ In this chapter, I will review and assess alternative interpretations of Aristotle's argument while further defending my own.

Thomas Aquinas seems to have been on the right track, I think, insofar as he indicated in his commentary on the *Metaphysics* that priority in substance is priority in perfection. This line of interpretation, though, remains virtually undeveloped in his handling of the argument of $\Theta 8$. It is easy to see why the man is prior in perfection to the boy, but Aquinas fails to assimilate the priority of exercises over their correlative capacities to the more basic case of natural substances, as the argument demands. Exercises must be prior in substance in the same sense that complete and mature organisms are.

Charlotte Witt has argued that priority in *ousia* at $\Theta 8$ 1050a4–b6 is ontological or existential priority: "A is prior in being to B if A can exist without B but B cannot exist without A."²⁶ The way to understand the priority of mature and complete substances over immature and incomplete ones is in terms of an asymmetrical relation of

 $^{^{25}}$ Charlotte Witt, "Power, Activity, and Being: A Discussion of *Aristotle*: Metaphysics Θ, trans. and comm. Stephen Makin," *Oxford Studies in Ancient Philosophy* 35 (2008): 297.

²⁶ "The Priority of Actuality in Aristotle," in *Unity, Identity, and Explanation in Aristotle's Metaphysics*, eds. T. Scaltsas *et al.* (Oxford, 1994), 216, and again in *Ways of Being: Potentiality and Actuality in Aristotle's Metaphysics* (Cornell, 2003), 81. The earlier account is more thorough on this particular topic ("For a more complete discussion of this issue, see my [1994]" *Ways of Being*, 140, 9n), and so I focus primarily on it. Yet the chapter "The Priority of Actuality" in *Ways of Being*, 75–96, connects this view with her interpretation of the whole of book Θ, a connection only partially suggested in the earlier paper.

ontological independence: mature substances can exist independently of immature ones, but immature substances depend on mature ones. This notion is also to be applied to capacities and their exercises: the activity constituted by the exercise of a capacity is (in some important way) existentially independent of capacities themselves, but capacities can exist only if the activities exist.

A virtue of Witt's interpretation is that her understanding of substantial priority as ontological independence is well attested by various passages in Aristotle's corpus. For example, in $\Delta 11$ Aristotle defines priority in respect of substance, stating, "[Things are said to be prior] in respect of nature and substance [in the following way]: those which admit of being without others, but the others cannot be without them" (1019a3–4). The sense of the verb "to be" is often read here as existential, and I believe that this is the best reading.²⁷ Thus priority in substance is for Aristotle, at least in $\Delta 11$, ontological priority as Witt construes it.

Another passage lends even more support to Witt's interpretation, given its proximity to the 1050a4–b6 argument in question. This passage comes from the final argument in $\Theta 8$ for the priority of actuality over potentiality, which begins at 1050b6. Here Aristotle claims that eternal sensible substances are prior in substance to perishable substances (i.e. that superlunary substances are prior in substance to sublunary ones) because eternal sensible substances can exist independently of perishable substances but perishable substances are ontologically dependent upon the eternal ones. If the superlunary substances did not exist (viz. the sun and stars), then the sublunary

²⁷ Michail Peramatzis has recently challenged this. See below.

substances (e.g. humans and horses) would not be able to exist. Priority in *ousia* as cited here (at 1050b6–7) is ontological priority.²⁸

This is certainly good prima facie evidence for taking priority in *ousia* in the penultimate argument of $\Theta 8$ to be ontological priority as Witt construes it. However, other factors, both textual and philosophical, suggest that this approach will not ultimately work.

One problem for Witt's view is that it seems it cannot accommodate Aristotle's explicit contention that the things prior in substance are posterior in generation.²⁹ Consider the fact that man is prior to boy in substance (1050a5). Certainly the man that a boy comes to be is posterior in generation to the boy, and is hence a clear candidate for being that very entity which is prior in substance to the boy. But Witt is explicit that this is not the way priority in substance with respect to mature and immature substances is to be understood. This is because, as Witt rightly acknowledges (223–4), a boy is obviously not ontologically dependent upon the man he eventually becomes; the boy can exist, even if that man never does. Thus Witt needs to provide an alternative candidate for what is substantially prior in cases of natural substances, which she does.

Witt argues that human children are ontologically dependent upon the species human being, and not on the token individuals each becomes. Moreover, the *telos* of the

²⁸ Cf. Meta. M2, 1077a36-b4, and discussion by Witt, "Priority of Actuality," 216-7, 2n.

²⁹ In addition to Θ8 and *Phys.* 8.7, the claim is made at *Phys.* 8.9, 265a22–4; *GA* 2.6, 742a19–22; *Meta.* A8, 989a15–18; *Rhet.* 2.19, 1392a19–22, as Makin notes in *Book* Θ, 195, and to which may be added *De Caelo* 310b34–311a2.

children, properly understood, is the species or kind itself, not particular adults existing in the future. In the case of a young girl Sally, Witt claims:

What is important for Aristotle is not a particular telos—Sally as an adult—but rather the idea that the child exists for the sake of being a mature person. Sally's telos is the type or species which she will realize, and not the token or individual she will become. On this view, the end or actuality in question is the species. And, if this is right, then we can make some sense of the ontological dependence of the potential on the actual. For the human species, unlike the adult Sally, exists now, and so it is possible that Sally's existence might be dependent upon it. And we can understand the relationship between a capacity, like sight, and its actuality, seeing, in analogous fashion. Aristotle's point is that the existence of a capacity is ontologically dependent upon the existence of a certain type of activity, not that a capacity is dependent upon a particular realization of it. (224)

Yet, as Witt elaborates, since an Aristotelian species is ontologically dependent on the set of individual members that instantiate it, "Ultimately ... the existence of Sally, or any other potential human being, is dependent upon the existence of individual, actual human beings ... Aristotle thinks that if there were no actually existing human beings, then a child like Sally would not exist, at least not as a potential human being. The reverse dependency does not hold. For we can imagine an Aristotelian universe in which mature human beings exist and have long life expectancies, but are unable or unwilling to reproduce. The fact that no children exist, that there are no potential humans, is not life-threatening to the adults" (226). Thus it is the set of "individual, actual human beings" which is substantially prior to Sally and to all other children. And this means that Sally and the others cannot exist without these actual individuals, but they can exist without Sally and the other children.

This position, though, seems inconsistent with Aristotle's explicit contention that what is prior in substance is posterior in generation. The species cannot be posterior in

generation, since it is eternal. Yet neither can the set of adult human beings instantiating the species at a given time. We can certainly grant that this set regularly undergoes changes in membership, since humans mature and die off all the time. Yet, importantly, the set of "individual, actual human beings" upon which Sally (for example) ontologically depends is not posterior in generation to Sally—it is the set of adult humans instantiating the species during the period of Sally's maturation into an adult. This set may lose and gain various members during this period, but it is nevertheless not posterior in generation to Sally.

Another issue is that it just seems false that children are existentially dependent upon adults. If all the adults suddenly died off, it seems likely that the children would continue to exist. Witt in fact considers such a scenario but argues against it, claiming, "I think [Aristotle] would reject the scenario outright on the grounds that any genuine species always has members or is eternal (*GA* II. I, 731^b24–732^a II)" (227). Yet on the previous page, Witt had said in support of the position that adults are ontologically independent of children, "we can imagine an Aristotelian universe in which mature human beings exist and have long life expectancies, but are unable or unwilling to reproduce. The fact that no children exist, that there are no potential humans, is not life-threatening to the adults" (226). It may not be life-threatening to the adults, but it certainly is for the species, and since the other scenario was rejected on the grounds that "any genuine species always has members or is eternal," this one should be too. But then, however, the important asymmetry is lost: it is now not altogether clear why adults are ontologically privileged in relation to children. Moreover, it seems that one could

make a strong case that the species (in addition to being ontologically dependent upon the concurrent adult instances) is also ontologically dependent upon children, though in a somewhat different way: if the adults do not reproduce and there are, consequently, no children, the species itself will eventually cease to exist.

In response to Witt, **Christos Panayides** has argued that we must look elsewhere in Aristotle's corpus for an understanding of priority in substance at play in $\Theta 8$ 1050a4– b6.30 What Panayides does particularly well is present a considerable amount of evidence that Aristotle has a settled, and often utilized, notion of priority in substance that is importantly distinct from ontological or existential priority. Based on Panayides' review of the corpus, the question then becomes: what does Aristotle mean by "priority in substance" in the controversial argument of $\Theta 8$? Ontological priority (*pace* Witt) or something else?

Panayides opts for an interpretation of priority in substance "along the lines suggested by Ross and Aquinas," and rejects Witt's ontological priority.³² There are

³⁰ "Aristotle on the Priority of Actuality in Substance," *Ancient Philosophy* 19 (1999): 327–344. Panayides's criticisms of Witt's interpretation are not entirely convincing. He seems to argue (340 *et passim*) that the presence of good textual support for an alternative understanding of priority in *ousia* refutes her interpretation; yet Witt's interpretation is also firmly grounded in passages from the corpus explicitly about priority in *ousia*. Panayides is weak in offering *internal* criticisms of Witt's view. Where he seems to be on the right track (338–9) by stating that Witt's position does not accommodate the essential point that what is prior in substance must be posterior in generation, he botches Witt's view: "Witt argues [that the actuality which is prior in substance to the child is] some already existing actual human being ... [but] Is there any way we may plausibly assert that Michael, an already existing adult, is posterior in generation to young Sally?" (338). Witt does not argue that Sally is ontologically dependent on some particular individual; this is precisely the view she rejects.

³¹ e.g. at *Physics* 8.7; cf. Appendix C. Panayides also cites *GA* 742a16–22 and *PA* 646a24–b10, both of which support and are further elucidated by my interpretation.

³² "Priority of Actuality," 336. Ross, *comm.*, 262, glosses what is prior in substance as "more real or more substantial," which is certainly on the right track I think. His comments about this particular issue are so

several problems with his view, though I believe it is initially on the right track. The first is that (in contrast to Witt) he makes no effort to explain how energeia is prior to dunamis in the case of capacities and their exercises. Yet the vast majority of the controversial argument in $\Theta 8$ is devoted to these kinds of cases. As I argued above, natural substances are the easy cases when arguing for the priority of energeia; that is why they are given brief treatment at the beginning of the argument (1050a4–7). The majority of the argument is then devoted to the other kind of case, capacities and their exercises, for which the substantial priority relation is harder to explain. Yet Panayides handles only natural substances in his paper, and it is clear that his own interpretation of priority in *ousia* is unsuited to handle the others.³³ Moreover, it is also difficult to see how his explanation of priority in *ousia* is distinct from posteriority in *genesis*, and this Panayides ultimately fails to demonstrate that his alone is a serious problem. interpretation is to be preferred over Witt's. Yet he helpfully collects evidence from various parts of the corpus that suggests Aristotle makes considerable use of at least one other notion of priority in *ousia* that is not ontological priority.

Jonathan Beere has argued that priority in being at $\Theta 8$ 1050a4–b6 involves an asymmetrical dependence of the essences of things prior in generation upon the essences of things posterior in generation.³⁴ Consider, for example, the case of an oak tree, an oak tree sprout, and an acorn. The oak tree is posterior in generation to the latter two, and the

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brief that it is actually unclear whether he was suggesting the same interpretative line as Aquinas. His commentary on other aspects of the argument is quite helpful.

³³ His view is formulated several times on 337–9.

³⁴ "The Priority in Being of *Energeia*," in *Dunamis: Autour de la puissance chez Aristote*, eds. M. Crubellier *et al.* (Peeters, 2008), 429–56.

oak tree sprout is posterior in generation to the acorn. Accordingly, the oak tree is prior in being to both the acorn and the sprout, and "the sprout has priority in being over the acorn" (436). What this means is to be understood thus:

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 sprout is to be such as to develop into a tree; what it is 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. (437)

I grant that for Aristotle, oak trees have an essence peculiar to their kind, and that this essence plays an important role in their world. Whether there is a separate essence for an acorn, and again another essence for the sprout, I am not so sure. Beere glosses the essence of oak sprout as "to be such as to develop into a tree." Yet this definition seems problematic for the view, since Beere maintains that the acorn has its own essence, different from the sprout's (and the tree's), and that the essence of the acorn non-reciprocally depends on the essence of the sprout. But one may very well think that the essence of acorn is also "to be such as to develop into a tree," the same as that of the sprout, and Beere offers no contrasting account of it. Hence his contention that the essence of the acorn depends upon the essence of the sprout, since the sprout is posterior in generation, seems questionable.³⁵

³⁵ Consider: "the seed is prior in genesis to the boy, and hence the boy is prior in form and being to the seed" (439); "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" (442). In the case of human generation, we can identify a variety of successive beings (and presumably for the oak tree case as well), such as: seed, embryo, fetus, baby, toddler, child, adolescent, and

One may also question his view on the grounds that Aristotle never uses the expression $\tau \delta \tau i \tilde{\eta} v \epsilon \tilde{i} v \alpha i$ in any of his discussions of priority in *ousia*. Yet if this priority relation is to be understood in terms of a non-reciprocal dependence among essences, we would have expected Aristotle to have used this technical term in such a context. This challenge could be met, I think, if the view Beere advances were an otherwise viable interpretation of priority in *ousia*. Yet there are additional reasons for thinking that it is not.

A problem for the view is that it seems unable to accommodate Aristotle's position at *Physics* 261a, viz. that locomotion is posterior in generation to the other kinds of motion and accordingly prior in *ousia* to them (e.g. to growth and alteration). On Beere's view, the what it is to be for growth, for example, must be non-reciprocally dependent upon the what it is to be for locomotion. Yet it is hard to see how this can be so. Growth, alteration, increase, and any other kind of *kinēsis* can presumably be defined without reference to locomotion. It is thus difficult to accept that the essences of these other, genetically prior kinds of motion (if they even have proper essences, which is unlikely) depend upon the essence of locomotion (or that, as Beere would have to maintain, the genetically earliest motions essentially depend upon the later ones, e.g. the essence of alteration upon the essence of growth if alteration occurs before growth).

An even more serious problem for this view is that it seems to collapse priority in being into priority in account (or definition: *logos*). Yet these two kinds of priority are

adult. On Beere's view, the being at any given stage has an essence distinct from the essences of the beings at all other stages, and its essence is non-reciprocally dependent upon each of the essences of the beings at all subsequent stages.

³⁶ At least none that I know of, and none cited by Beere.

importantly distinct. Summarizing his view, Beere states, "what it is to be an acorn depends on what it is to be an oak tree, but not vice versa;" "What it is to be a container depends on what the *energeia* —containing — is. Thus containing has priority in being over the capacity to contain;" and finally, "I have now explained what it means for beingin-energeia to have priority over being-in-capacity: the being-in-capacity has the energeia as part of its essence: what it is to be in capacity F is partly a matter of what it is to be in *energeia F*. Although the capacity is needed for the *energeia* to come about, the capacity does not reciprocally determine what the *energeia* is. The capacity depends on the energeia in a way that the energeia does not depend on the capacity" (438). Yet the way priority in account was explained earlier in Θ8 (at 1049b12–17) was precisely as a non-reciprocal dependence of the definitions of dunameis upon the definitions of their correlative *energeiai*: the what it is to be for a *dunamis* depends on, or presupposes (literally exists before: prohuparchein), the what it is to be for the correlative energeia, but not vice versa. Beere's account of priority in ousia could be rescued from this collapse into priority in *logos* if it made clear that the way in which the essence of the dunamis depends upon the essence of the energeia is distinct from the way it does so in the case of priority in *logos*. But it is unclear how it does so.³⁷

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³⁷ It seems that if there are separate essences for the acorn and for the sprout, the essence of the sprout is not the kind of thing the essence of the acorn could depend upon in any way other than the way definitional dependence is exhibited by priority in *logos*. The essence of the sprout presumably does not enjoy the level of substantial primacy that species-forms do (e.g. the essence of oak tree and that of *anthrōpos*). Perhaps the essence of the acorn is "to be such as to develop into a sprout." But why not a tree instead?

Stephen Makin endorses the notion of ontological independence Witt uses, but he argues that this notion has not been properly applied.³⁸ Straightforward ontological independence is inapplicable to the way in which natural substances and their capacities instantiate correlative potentiality and actuality. Drawing on material in $\Delta 11$, Makin argues that priority in substance is best understood as "a privileged type of existential independence" (*Book* Θ , 193). He accepts that "priority in substance is indeed fundamentally a matter of existential independence: Fs are prior in substance to Gs if it is possible for there to be Fs without Gs, but not vice versa," but argues for a more subtle version of this, one in which the concept of *possibility* plays a rather different role: there must be some *particular respect* in which it is possible for Fs to be without the Gs but not vice versa. Accordingly,

Aristotle's distinction at Met. $\Delta 11$, 1019^a12-14 , between what can exist independently in respect of generation and in respect of destruction, is an instance of this sort of qualification of possibility. If generation results in Fs rather than Gs, then it is possible in respect of generation for there to be Fs without Gs; while, if destruction results in Gs rather than Fs, then it is possible in respect of destruction for there to be Gs without Fs. ($Book \Theta$, 193)

And the formulation of priority in substance that Makin ultimately prefers is:

Fs are prior in substance to Gs so long as there is some process which in *normal* conditions results in Fs rather than Gs; whereas the way to get Gs rather than Fs is to *interfere with*, *interrupt*, or *hinder* that process. (Book Θ , 195; "Priority," 231, 234, his italics)

One problem with his interpretation is that it gives an unsatisfying account of the way in which mature substances of a species are prior in substance to immature ones.

Consider the fact that adult humans are prior in substance to children. On Makin's view,

³⁸ "What does Aristotle Mean by Priority in Substance?," *Oxford Studies in Ancient Philosophy* 24 (2003): 209–38; and *Aristotle*: Metaphysics $Book \Theta$ (Oxford: Clarendon Press, 2006), 192–204.

adults are prior to children because it is possible, in respect of generation, for there to be adults without children but not for there to be children without adults; contrastingly, "it is possible, in respect of destruction, for there to be children without adults and not adults without children" (Book Θ , 194, emphasis original). It is the second part of his position, i.e. his take on destruction, that I find problematic. I accept that if the generative process is interfered with, interrupted, or hindered, the result is not an adult human being; but I do not accept Makin's repeated contention, which is essential to his interpretation, that the result of such interference is a child. The result is a corpse, not a child. But he repeatedly and explicitly says otherwise: "Of course, there are also processes which result in children, and not adults: for example, infanticide, childhood illness ... If human generation runs its course, the upshot is adults rather than children; in order to get children rather than adults, I have to interfere with or interrupt that process" (Book Θ , 194). "A process which resulted in children rather than adults would not be a process of generation, but rather an interrupted or incomplete generative process, a kind of destruction" (Book Θ , 195). "[T]here certainly is a route which results in children and not in adults—infanticide or destruction ... The route by which one gets children and not adults—killing or destruction—is an interruption of or interference with [generation]..." ("Priority," 229). On Makin's account, the result of successful human generation is an adult (and I agree); but the result of interrupted generation, e.g. by infanticide, is a child (or an infant), and I cannot accept this. Essential to his interpretation is that what is prior (in either case—generation or destruction) is that which exists once the process is over, i.e. the "result," as he repeatedly says. And while it is true that a child does exist before

the process has been stopped, the child no longer exists after the destruction of the process and as the *result* of the destruction, which is what he needs. And since this point is essential to his interpretation, the objection amounts to strong grounds for preferring an alternative.

As a possible emendation to this view, one might contend that, on the one hand, it is possible in respect of *completed* generation for there to be adults without children but not children without adults, while on the other hand, it is possible in respect of unfinished generation for there to be children without adults. This description seems to reflect accurately the way the world is: completed generation entails that there be adults that are no longer children (i.e. that there not be children, at least not anymore), and unfinished generation entails that there be children that are not adults (i.e. that there not be adults, at least not yet). The problem with this emended view is that while it is true of natural substances, it will fail to hold for capacities. Recall that an important difference between natural substances and capacities is that when the *dunamis* is realized in the former cases, e.g. when a boy becomes a man, the *dunamis* ceases to exist altogether: the actual man no longer has the dunamis for becoming a man, and the actual man is not a man potentially.³⁹ In the case of capacities, on the other hand, the exercise of the capacity does not (at least for many cases) result in a termination of the dunamis. When the builder is actually building, the *dunamis* is retained since he continues to have the art; similarly, when the animal actually sees, the dunamis for seeing continues to exist in the animal. Thus there will not be the needed parallel between the *completed generation* of

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³⁹ See pages 24-5 above.

natural substances and *capacity exercise*: there can, on the one hand, be mature organisms (the *energeiai*) without the immature (the Fs without the Gs), but, on the other, there cannot be exercises of capacities (the *energeiai*) without the capacities themselves, since the capacities continue to exist when they are exercised by their possessors (if there are Fs, there are also Gs). Yet this parallel is needed if the view is to account for the way in which correlative *dunamis* and *energeia* and their various manifestations within the sublunary cosmos exhibit priority in substance, and without it, this line of interpretation will not work.⁴⁰

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⁴⁰ I am not going to rehearse Makin's own account of how *energeia* is prior to *dunamis* in the case of capacities (see "Priority," 230–4; $Book \Theta$, 196–203). It is a further application of the interpretative line I have already criticized. Makin does divide up the controversial first argument somewhat differently from the way I do, and his divisions are certainly worth considering ("Priority," 226–7; Book Θ , xvii, 192–204). One problem with his construal, though, is that he takes lines a7–10 (beginning with καὶ ὅτι), lines which are about teleology and the status of the energeia as an archē of the dunamis, as elaborating on the previously mentioned boy/man and fertilized egg/adult human examples. While I agree that the man is the boy's telos and archē, and that these teleological considerations do apply to natural substances themselves, I think it is clear from the text that Aristotle makes the points of a7-10 in order to apply them to capacities and exercises, particularly those he then lists at a 10–12. Two textual reasons favor this reading: (1) the $\gamma \acute{a}$ 0 of line 10 makes a connection with a preceding statement, and this must be lines 7–10; (2) line 4 has ποῶτον μὲν ὅτι... and natural substances are cited (5–6) in support of this first point, which is then followed by καὶ ὅτι in line 7 where teleology is introduced. The καὶ ὅτι introduces a new point; it is not (as Makin contends) a continuation of a point about natural substances (though, again, I agree that what Aristotle says about teleology is in fact applicable to natural substances, just not that Aristotle is so applying it). On my reading, Aristotle makes three explicit divisions in the overall argument: (1) πρώτον μὲν ὅτι (a4–7); (2) καὶ ὅτι (7–14); (3) ἔτι (15–b3). The first (the shortest) is about natural substances, and the latter two pertain to capacities and their exercises. Natural substances are given brief treatment because they are the easier cases: the adults have the form the children lack, and consequently are more perfect and complete in the relevant respects. (Their treatment does not involve, as Makin contends, "difficult claims which Aristotle makes in *Metaphysics* Θ 8, e.g. that an adult is prior in substance to a child" ("Priority," 235).) Capacities are given a much longer treatment, since they are more difficult. Furthermore, Makin's commentary (Book Θ , 197–203) does not treat 1050a15-b3 as a continuous supporting argument, as I think it should be. The result is that he misses the important connections between form (15-16) and the exercises of capacities, the making of which helps Aristotle assimilate the priority of exercises over their correlative capacities to the priority of mature substances. The majority of the overall argument is devoted to explaining why exercises of capacities (the hard cases) are prior in substance to the capacities themselves in the same way (in the same sense of "prior in ousia") that mature organisms are prior to immature ones.

Another shortcoming of Makin's interpretation is that his treatment of the important remark at 1050a19, "nature acts similarly" (καὶ ἡ φύσις ὁμοίως), misses part of what is essential to Aristotle's argument. Makin comments that the text is "allusive," and that "Natural capacities like the senses are innate ... and are not acquired at all" (Book Θ , 199). I stressed earlier that such capacities are indeed acquired, and that it is important that we appreciate this fact and compare it with natural substances themselves. Aristotle makes this claim about nature acting similarly in the context of relating how teachers bring their students from a state of not having a capacity to the state of its acquisition; the acquisition is verified when they can do the work independently. Nature works in this same way (ὁμοίως), namely, it brings developing organisms from a state of not having a certain capacity to the state of exercising the acquired capacity, which is typically interconnected with their maturation into adults. Aristotle's point at *Physics* 8.7 is relevant here, viz., it is the fact that the capacity for locomotion is acquired last of all the motions, when the developing organism is more perfected and complete, that attests to its being prior in substance to the other kinds of motion (e.g. to alteration and increase). So, elsewhere as well, Aristotle connects the natural acquisition of a developing organism's capacities with priority in substance, and it is unclear how Makin's interpretation of priority in substance could explain how locomotion is prior in substance to the other kinds of motion. The sort of explanation suggested by his account seems quite different from the explanation Aristotle himself gives.

Makin's interpretation of priority in substance at $\Theta 8$ 1050a4-b6 relies heavily on material in $\Delta 11$, where priority in substance is also discussed. Other interpreters also

adopt this approach: they construct an interpretation of $\Delta 11$ and then apply it to $\Theta 8$ 1050a4–b6, with various results. I want now to further question this strategy. I hold that what Aristotle says in $\Delta 11$ does not correspond well with what he says at $\Theta 8$ 1050a4–b6. Any interpretation of $\Theta 8$ which imposes $\Delta 11$ on it must surmount the problems I raise here (some of which are more serious than others).

To begin with, there are no examples in $\Delta 11$ of mature substances being prior in substance to immature ones. There is also no mention of the exercises of capacities being prior in substance to capacities themselves. Yet these are the very phenomena discussed in $\Theta 8$. Moreover, in $\Delta 11$ there is mention of priority in respect of actuality and priority in respect of potentiality. Yet nowhere in all of Θ , a book devoted to the very phenomena of actuality and potentiality, does Aristotle mention priority of either sort.

Another problem is the discussion of priority in time in $\Delta 11$ does not quite match the discussion of priority in time in $\Theta 8$. The sense of time in Θ is less broadly construed and is connected with the phenomenon of generation. In Δ , the Trojan war is prior in time to the Persian war by virtue of the simple fact that it came before, but the two wars are unrelated genetically (though Herodotus may suggest otherwise). In $\Theta 8$, priority in time is a genetic relation:⁴¹ the thing prior in time is itself part of the generative process (as the efficient cause). If the sense of priority in time in $\Delta 11$ were at play in Θ , Aristotle could have just said in Θ that actuality is prior in time because species are eternal, and so for every potential Φ , it follows some actual Φ existed before it (indeed, an infinite

⁴¹ The concluding sentence of the argument states that *energeia* is prior to *dunamis* κατὰ γένεσιν καὶ χρόνον (a3).

number of them did). It would seem unnecessary to concentrate as he did on the efficient cause as the pre-existing actual φ . Since $\Delta 11$'s discussion of priority in time does not fit $\Theta 8$'s, it should be no surprise if $\Delta 11$'s discussion of priority in *ousia* does not fit $\Theta 8$ as well, especially given the other points I am raising here.

Fourthly, the mention at the end of $\Delta 11$ of priority "in respect of generation" and "in respect of destruction" does little to help us understand $\Theta 8$. Let us consider now the controversial $\Delta 11$ passage in full.

Some things then are called prior and posterior in this sense, others ([sense #] 4) in respect of nature and substance, i.e. those which can be without other things, while the others cannot be without them, —a distinction which Plato used. If we consider the various sense of 'being', firstly the subject is prior (so that substance is prior); secondly, according as capacity or actuality is taken into account, different things are prior, for some things are prior in respect of capacity, others in respect of actuality, e.g. in capacity the half line is to the whole line and the part to the whole and the matter to the substance, but in actuality these are posterior; for it is only when the whole is dissolved that they will exist in actuality. In a sense, therefore, all the things that are called prior and posterior are so called according to this fourth sense; for some things can exist without others in respect of generation, e.g. the whole without the parts, and others in respect of dissolution, e.g. the part without the whole. And the same is true in all other cases. (1019a1–14, Revised Oxford Translation)

The half line is prior to the whole line in capacity since the half line exists potentially but the whole line does not: there is a respect in which the half line is, but in which the whole line is not, namely, in capacity. Contrastingly, the whole line is prior in actuality to the half line, since there is a respect in which the whole line is, but in which the half line is not, namely, in actuality; the latter exists only potentially. Similarly, the matter, e.g. the earth and water that comprise the whole organism, are prior in potentiality to the organism, but the organism is prior in actuality to the matter. As justification Aristotle says, "It is only when the whole is dissolved that they will exist in actuality."

In response to Makin's interpretation, I stress that the latter point of the last sentence, "some things can exist without others in respect of generation, e.g. the whole without the parts, and others in respect of dissolution, e.g. the part without the whole," is made not about a generative process of the whole that gives you the parts when the process is interrupted, but about a process that gives you the parts when the whole already exists, i.e. the dissolution of the whole. Whether the dissolution of the whole properly counts as a "process" or not does not matter, I think, but what does matter is that Aristotle is *not* making a point here about what happens or might happen during the generative process *resulting* in a whole; rather, he is making a point about what happens after the whole has already been generated. But Makin's interpretation rests on taking priority with respect to generation, and with respect to destruction, the first way: you get the posterior items, the Gs, by interrupting a generative process which under normal conditions gives you Fs. But what Aristotle is saying is that you get the Gs when the Fs themselves are destroyed, not when the *process* generating the Fs is interfered with. So, since we do not get children (the Gs) when adults (the Fs) are destroyed, but matter (e.g. earth and water), it seems a misapplication of the passage to claim that what is prior in respect of dissolution or destruction, the Gs, are things that exist before the whole is generated. The things that are prior in destruction are the things which exist after the whole is dissolved. With respect to destruction, the parts and the matter can be, but the whole (and the children) cannot. With respect to generation, the wholes admit of being but the parts and the matter do not: it is not the parts and the matter that are generated, but the whole.⁴²

A fifth reason for believing that $\Delta 11$ is unhelpful is that the things prior with respect to generation in $\Delta 11$ are the complete wholes, e.g. the whole line and the whole organism, while in $\Theta 8$ the whole organisms are said to be *posterior* in generation (1050a4–6). The reason for the discrepancy is not that Aristotle is inconsistent, but that he is dealing with different relata: whole organisms and the matter they dissolve into in $\Delta 11$, and immature organisms and the completed organisms they develop into in $\Theta 8$. Since an interconnection between priorities in *genesis* and *ousia* is made at *Physics* 8.7 (and elsewhere as well) which aligns considerably better with $\Theta 8$, it seems those other texts should be privileged over $\Delta 11$ in interpreting $\Theta 8$, at least the controversial argument regarding priority in *ousia* at 1050a4–b6.

Thus, the general lesson is that $\Delta 11$ is unhelpful. Any interpretation of $\Theta 8$ 1050a4–b6 which imposes $\Delta 11$ upon it is unlikely to succeed. Makin's interpretation is the most conspicuous instance of this strategy, but he is not alone.

Michail Peramatzis has argued that priority in nature and substance in Aristotle is a kind of ontological priority.⁴³ Importantly, though, he rejects the existential version other interpreters have adopted. The version of ontological priority he endorses is this:

⁴² 'Parts' here does not include parts of animals, which I think are generated and are certainly not prior with respect to destruction since they exist in this respect only homonymously. Also, it is certainly possible that the same matter exist before the whole itself exists, but its so existing without the whole does not exhibit priority in destruction over the whole.

⁴³ "Aristotle's Notion of Priority in Nature and Substance," *Oxford Studies in Ancient Philosophy* 35 (2008): 187–247.

[PIB] A is ontologically prior to B if and only if A can be what it is independently of B being what it is, while the converse is not the case [Priority in Being what something is]. (189)

At first glance, [PIB] seems indistinguishable from priority in *logos*, but Peramatzis is careful to argue that they are importantly distinct.⁴⁴ [PIB] "is the ontological correlate of definitional priority ... The idea behind [PIB] ... is that, just as some items are defined without others but not conversely, so too some entities are what they are without others being what they are but not conversely" (189). An application of [PIB] could perhaps be made, for example, to the Platonic Form of the Good in relation to the other Forms: "the Form of the Good may be responsible for *making the rest of the Forms what they are* (but not conversely), without the rest of the Forms being dependent upon the Form of the Good *for their existence*" (195). The fact that A is ontologically prior to B in the manner of [PIB] implies nothing about the existential dependency of A upon B or vice versa. In the case of Aristotelian forms, this is especially important since we know that Aristotle maintains that forms are *not* existentially independent of the composite beings which they enform. Peramatzis applies [PIB] to "an essence or form *F*" in relation to the beings it enforms as follows:

F is what it is independently of all composite F's being what they are but not conversely. In other words, F makes particular substances (the entities in which F exists) what they are (but not conversely) and so F is ontologically prior to them: what a particular substance is depends on what its essence or form is but the converse is not the case. 45 (206)

The goal of his paper is essentially to argue that interpreting Aristotle's various examples of priority in substance in various parts of the corpus via [PIB] gives better

⁴⁴ See in particular, 222–6.

⁴⁵ See also 238 for a good, summary statement of his view.

results than the traditional existential notion of ontological priority, or [PIE] (Priority in Existence, cf. 187). Peramatzis argues that there are insurmountable difficulties with the [PIE] interpretation, but that these difficulties do not emerge for the [PIB] interpretation. He also stresses that [PIB] makes a lot of sense overall within the context of Aristotle's philosophy. Thus, we should accept [PIB] as Aristotle's notion of priority in nature and substance.

The passages Peramatzis focuses on in particular are from *Metaphysics* $\Delta 11$, Z10, and $\Theta 8$. In $\Delta 11$ Aristotle defines priority in *ousia* and gives various examples; and in Z and Θ he gives other examples of things prior in *ousia*. For interests of space, I will not discuss Peramatzis' treatment of Z10 (where Aristotle says, among other things, that right angles are prior to acute angles). I will say a few things about $\Delta 11$, but I am particularly interested in his treatment of $\Theta 8$, for obvious reasons.

Although offering extended analyses of the various priority arguments in $\Theta8$ is not part of Peramatzis' project, he does argue that priority in substance should be understood as [PIB] in this chapter. His treatment turns out to be limited, however, to the cases of natural substances: "My central aim ... is to understand the relation between forms in complete composites and the corresponding incomplete, potential beings (e.g. adult—child, human—seed) and, more importantly, between form as actuality and matter as potentiality" (227). This has the unfortunate consequence that he does not discuss the application of [PIB] to capacities and their exercises, and to the priority of eternal sensible substances over perishable ones. "I shall leave out for further study," he writes, "Aristotle's examples of capacity possession and its exercise (1050a10—14), capacities

and their exercise quite generally (a23–b2), and eternal actualities (b6ff.). My interpretation in terms of [PIB] could, I think, work better than [PIE] in such cases too" (226–7).46

What is of particular interest here is that Peramatzis is the first commentator on $\Theta 8$ who does not construe the priority of *energeia* in the final argument as existential priority. While there has been extensive disagreement on how to interpret the third argument (1050a4–b6), commentators have been unanimous in holding that the fourth argument (1050b6–34) is to the effect that eternal sensible substances are existentially independent of perishable substances, but perishable substances could not exist without the eternal substances. This is somehow connected to a further way in which *energeia* has priority over *dunamis*. It is unfortunate that Peramatzis does not explain how [PIB] could provide a viable alternative to the standard interpretation. I will accordingly offer one on his behalf.

According to [PIB], eternal substances are what they are independently of all perishable substances being what they are, but not conversely; in other words, the eternal substances make the perishable substances what they are (but not conversely) and so the eternal substances are ontologically prior to the perishable ones: what a perishable substance is depends on what an eternal substance is but the converse is not the case.

I submit that if the application of [PIB] to eternal and perishable substances can be defended, Peramatzis' interpretation of priority in substance has met a significant challenge. I also contend, however, that if it cannot meet this challenge, his interpretation of priority in substance as [PIB] ultimately fails, not just in Θ 8, but elsewhere as well.

⁴⁶ In fact, he does discuss capacities and their exercises in a footnote, which I consider below.

Now it is difficult to see how the application of [PIB] could succeed here. One problem is that Aristotle denies there is a "what it is to be" or essence for eternal *sensible* substances (i.e. the eternal substances mentioned in Θ8, such as the sun, moon, stars, and heaven). In Z15 Aristotle explicitly denies that the sun and the moon have definitions: "It escapes people's notice that it is impossible to give a definition in cases of the eternal things, and especially for however many are unique, such as sun and moon." There is no definition of a particular, even if the particular is eternal. But then it is hard to make sense of the claim (i.e. the claim of [PIB]) that eternal substances are *what they are* independently of perishable substances being what they are; for the eternal substances here do not have any *what-ness* properly speaking. They just are the individual substances they are without having an essence. Now perishable substances on the other hand are certainly definable, and Peramatzis repeatedly contends that composite beings (and hence perishable substances) ontologically depend upon their essences or forms, but on little or nothing else:

[T]he entities which satisfy [PIB] are not any or all items mentioned in a putative definition of x but only the ones which are crucial to x's being what it is, the ones that make x what it is. Thus, for instance, in some views of definition, the defining formulae of certain types of composite include mention of their matter or their genus. In the present understanding of [PIB], this need not entail that genera or certain types of matter are ontologically prior to composites. For, arguably, these items are not the most important part of what it is to be the relevant types of composite as they do not make composites of these types what they are. Rather, it would be the corresponding essences or forms which satisfy [PIB] as they play the relevant fundamental ontological role. (190; cf. 226)

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 $^{^{47}}$ 1040a28–29. λανθάνει ὅτι ἀδύνατον ὁρίσασθαι ἐν τοῖς ἀϊδίοις, μάλιστα δὲ ὅσα μοναχά, οἶον ἥλιος ἢ σελήνη. See Ross, *comm. ad loc.*, for discussion.

It seems that even if the superlunary substances were mentioned in the definition of any perishable substance, such a reference would have the same [PIB] ontological correlate as the mention of the matter or genus, i.e. none. There are many ways in which perishable substances are what they are, since there are many species of substance within this very broad class; but their being what they are does not depend on superlunary eternal substances being what they are, but at most the existence of perishable substances depends on the existence of eternal substances.

Moreover, the evidence that Aristotle is maintaining in the fourth argument of Θ 8 an existential dependence of perishable substances upon the eternal substances is overwhelming. He certainly holds that they do so depend. In De Gen. et Corr. II.10, Aristotle argues that the continuous, never-ending cycles of sublunary coming to be and passing away depend upon the eternal motion of the sun along its inclined circle. Continuous circular motion is the primary form of change, upon which other changes, including seasonal changes and the coming to be of perishable substances, ultimately depend. It is not in being what they are that they depend on the sun, it is in the fact that they exist that they depend upon the sun.⁴⁸ What also lends support to this line of interpretation is that the basic point (though perhaps none of Aristotle's cosmological and astronomical details) is quite obviously true: if the sun went out of existence, life on Earth as we know it (as Aristotle knew it at least) would also cease to exist.

Now one may think that the inability of [PIB] to explain the priority of eternal substances over perishable ones amounts to no more than that [PIB] is not as all-

⁴⁸ Consider also *Meta*. Λ5–7 and *De Caelo* I.12.

encompassing as Peramatzis originally claimed; [PIB] may still turn out to be our best interpretation of priority in substance in other contexts, such as $\Delta 11$ and the first argument in Θ 8. But the setback for [PIB] is much more significant than this. Here's why: it is essential to Peramatzis' interpretation of priority in substance as [PIB] that the $\Delta 11$ definition be captured in the language of [PIB] and not [PIE]; priority in substance, he argues, is not defined there as existential priority, contrary to what others have maintained. Recall now how priority in nature and substance was defined in $\Delta 11$: "[Things are said to be prior] in respect of nature and substance [in the following way]: those which admit of being without others, but the others cannot be without them."49 Peramatzis' view *must* have it that the sense of the verb "to be" here is *not* existential, otherwise his entire argument for [PIB] falls apart. Indeed, he devotes more space to arguing this very point than any other.⁵⁰ But what we find is that the final argument in Θ 8 glosses priority in substance using language very similar to the Δ 11 definition, and in particular it uses the crucial verb "to be." The gloss runs: "these [substances] are primary; for if these were not, nothing would be."51 So Aristotle here, in Θ 8, glosses priority in substance such that the posterior members of the relata are existentially dependent upon the prior members. Accordingly, since priority in substance in the final argument in Θ 8 is glossed by Aristotle in terms of [PIE], and Δ 11 uses language similar to Aristotle's gloss, priority in substance in $\Delta 11$ should, then, be the same as that of $\Theta 8$ 1050b19. When Aristotle says in $\Delta 11$ that things are prior in substance when they "admit

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 $^{^{49}}$ ὅσα ἐνδέχεται εἶναι ἄνευ ἄλλων, ἐχεῖνα δὲ ἄνευ ἐχείνων μή (1019a3–4).

⁵⁰ 191–6, 200–14, 243–6.

⁵¹ καίτοι ταῦτα πρῶτα· εἰ γὰρ ταῦτα μὴ ἦν, οὐθὲν ἂν ἦν (1050b19).

of being without others, but the others cannot be without them," he is saying that the prior members of the relata are existentially independent of the posterior members, and that the latter are existentially dependent upon the former. The final argument in $\Theta 8$ thus amounts to strong evidence that priority in substance as defined in $\Delta 11$ is to be understood in terms of [PIE] and not in terms of [PIB].

What about Peramatzis' argument for [PIB] based on the evidence internal to $\Delta 11$ itself? Since my concern is primarily with $\Theta 8$, I am not going to dwell on $\Delta 11$ extensively and so cannot respond entirely to his lengthy treatment of it. I noted above the problems I believe $\Delta 11$ poses as an interpretative tool for handling $\Theta 8$'s first argument for the priority of actuality in substance. I also suggested above some of the ways I believe $\Delta 11$ ought to be understood, and I do want to expand a bit on those here.

In $\Delta 11$, lines 1019a4–14 ought to be taken, I think, as one continuous argument.⁵² I agree with Peramatzis (244) and Makin ("Priority," 213) that Ross's and Jaeger's parentheses are ill chosen.⁵³ Aristotle argues here (1019a4–14) that whenever something is said to be prior to something else—i.e. for all cases (πάντα, a11) of priority—there is accordingly a certain respect in which the prior item is and in which the posterior item is not: the prior item admits of being in a way in which the posterior item does not. In a certain way then (τρόπον δή τινα, a11), all priorities resemble priority in *ousia*, which

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⁵² The inferential δή of τρόπον δή τινα (a11) marks the conclusion of an argument begun with ἐπεὶ δέ (a4). For what it's worth, I suspect the words ἡ διαιρέσει ἐχρήσατο Πλάτων of a4 might be an intrusive gloss.

⁵³ But I would construe τὰ μὲν γάρ (a7) to ἔσται (a11) as parenthetical.

lacks the qualification (a3–4).⁵⁴ For example, a whole organism is prior with respect to generation to its matter. There is accordingly a respect in which the organism admits of being but in which the matter does not, namely, generation: the whole is generated but the matter (e.g. the water and earth) is not—the thing which comes to be is the organism, not water and earth. Another example is priority in time.⁵⁵ The Trojan war is in a certain respect in which the Persian war is not: the Trojan war is x number of years away from the present and the Persian war is y number of years away from the same, and $x\neq y$. The Trojan war is prior in time to the Persian since x is greater than y. But, one should rightly ask, should the Persian war not also be prior to the Trojan, since it similarly is in a respect (namely, y years away from the present) in which the Trojan war is not? I answer that Aristotle's point is that whenever A is said to be prior to B, it follows that A admits of being in a way in which B does not. He is not committed to the converse:⁵⁶ if A admits of being in a way in which B does not, it need not follow that A be prior to B, at least under any non-counterintuitive notion of priority. (The Persian war is prior with respect to being a past event nearer to the present, but it is far more natural to say it is posterior to the earlier event, not prior in this odd way.) What Aristotle does seem to be committed to is that whenever A is in a certain respect in which B is not (e.g. generated, x number of years away from the present), either A is prior to B in some respect or A is posterior to B

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 $^{^{54}}$ τρόπον δή τινα πάντα τὰ πρότερον καὶ ὕστερον λεγόμενα κατὰ ταῦτα λέγεται (a11–12). The ταῦτα in κατὰ ταῦτα (a12) are anaphoric to the ὄσα and ἐκεῖνα (a3), as the wording (and, I claim, the sense of the argument) suggests: ἐνδέχεται εἶναι ἄνευ ἄλλων (a3)/ἐνδέχεται ἄνευ τῶν ἑτέρων εἶναι (a12–13). All (πάντα) prior and posterior things are said (λεγόμενα) to be so in a way (τρόπον τινα) that accords with (κατά) the way in which things (ταῦτα) are said to be prior and posterior κατὰ φύσιν καὶ οὐσίαν (a2–3).

⁵⁵ See 1018b14–19.

⁵⁶ See the precise wording at a11–12, quoted in 54n.

in some respect. Thus, all cases of priority can be explicated in a way similar to priority in *ousia*, the priority that holds when A admits of being without B *without* a qualification to a particular respect.

Admittedly, this analysis of the $\Delta 11$ text does not respond to every issue Peramatzis raises in his lengthy discussion of it, but I do think an interpretation along these lines is well-supported, and, importantly, one which does not encompass [PIB].⁵⁷

Setting $\Delta 11$ aside, one problem for [PIB] is that it cannot account for the way in which locomotion is prior in nature (261a14) and in substance (261a19–20) to the other kinds of motion, e.g. alteration and growth, as stated in the *Physics*. Alteration's being what it is does not depend on locomotion's being what it is. And since locomotion is not prior in *logos* to the other kinds of *kinēsis*, there cannot be any ontological correlate to a definitional priority. Yet this ontological correlate is precisely what is required by [PIB]. Moreover, since the notion of priority in substance at *Physics* 8.7 261a13–26 is the same as that in the first argument of $\Theta 8$ (see the previous chapter and Appendix C), and [PIB] cannot accommodate *Physics* 8.7, this is strong evidence that the notion of priority in substance at $\Theta 8$ 1050a4–b6 is not [PIB].

One issue that comes up in Peramatzis' discussion of $\Theta 8$ is the important difference between those interpreters who adopt what Peramatzis calls, after Makin, a "splitting strategy," and those who do not. The splitting strategy consists in interpreting Aristotle as having *two different notions of priority in substance* at play in $\Theta 8$, one for

⁵⁷ I am also sympathetic to the view that this $\Delta 11$ passage is not thought out as well as it should be, as Ross, *comm.*, 318, and Christopher Kirwan, trans. and comm., *Aristotle:* Metaphysics, *Books \Gamma*, Δ , and E (Oxford, 1993), 155–6, have suggested in their commentaries.

the first argument and another for the second. Peramatzis contends that as a result of adopting this strategy, "the chapter's overall argument loses its uniformity." Yet by interpreting priority in substance univocally, e.g. via [PIB], one does not succumb to this defect.

Such a criticism of the splitting strategy is unimpressive. First, it is unclear how this approach undermines the uniformity of the argument of $\Theta8$. The conclusion argued for is that energeia is prior to dunamis, not that it is merely prior in ousia. Aristotle argues for the overall priority of energeia by arguing that it is prior in various ways. Those who adopt the splitting strategy claim that Aristotle argues that *energeia* is prior to dunamis by arguing for four different ways in which it is so: (1) in logos, (2) in time, (3) in *ousia*, understood one way for cases of correlative *dunamis* and *energeia*, and (4) in ousia, understood another way in relating eternal sensible substances to perishable ones.⁵⁹ The non-splitting strategists contend that Aristotle argues that *energeia* is prior in only three ways (versus four), since the final two arguments are not to be split into two different notions of substantial priority. Yet dividing up the chapter into three notions of priority rather than four grants more "uniformity" to the argument only in the weak and uninteresting sense that 3 is nearer to 1 than 4 is. Moreover, there is solid evidence external to Θ that Aristotle himself has more than one notion of priority in substance.

Consider this passage from *Physics* 8.7:

⁵⁸ "Aristotle's Notion," 237. In 53n, he claims Makin "also argues [on pages 235–7 of "Priority"] that this approach undermines Θ 8's uniformity of argument." While it is true that Makin rejects this strategy and his appendix is indeed a useful discussion of it, he does not in fact raise this particular criticism against those who adopt it. Makin acknowledges the potential for an interpretation similar to the one I have developed (211).

⁵⁹ I myself reject (4), as we will see in the next chapter, but my own view is not relevant here.

Again, there is another point of view from which it will be clearly seen that locomotion is primary. As in the case of other things so too in the case of motion the word 'primary' may be used in several ways. A thing is said to be prior to other things when, if it does not exist, the others will not exist, whereas it can exist without the others; and there is also priority in time and priority in substance. (260b15–19, *Revised Oxford Translation*)

The first kind of priority mentioned fits well with the final argument for the priority of actuality in Θ 8 (which uses the priority of eternal sensible substances over perishable ones). In addition to this kind of priority, there is also, Aristotle notes, priority in substance. Given that priority in substance is illustrated by Aristotle several lines later (261a) in a way that fits quite well with the penultimate argument in Θ 8, it is quite natural to see Aristotle as drawing a distinction here in the *Physics* between the two notions of priority in *ousia* at play in Θ 8. Thus, external evidence for the splitting strategy is quite good.

Moreover, there is strong evidence for the splitting strategy *internal* to Θ8 itself. The substantial priority argument is introduced at 1050a4 with the following language: Άλλὰ μὴν καὶ οὐσία γε. The Άλλὰ μὴν καί contrasts priority in substance with priority in time and in account that Aristotle has just finished discussing. The following argument is introduced at 1050b6 with similar language: ἀλλὰ μὴν καὶ κυριωτέρως. The ἀλλὰ μὴν καί can quite naturally be read here as introducing yet another kind of priority, as it did earlier at 1050a4: actuality is prior to potentiality in an even stronger way as well, for example, existential priority.⁶⁰ This reading is supported by the fact that in the sentence

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⁶⁰ The fourth kind of priority here is open to interpretation and need not in fact be existential priority, though this is how it is most commonly construed; see the next chapter.

before, Aristotle drew the conclusion that actuality is prior to potentiality in substance.⁶¹ If Aristotle were continuing to argue that actuality is prior to potentiality in substance in the same way, it seems he drew this conclusion prematurely.⁶² It would be more appropriate to draw this conclusion at the end of the second argument if the notion of priority in *ousia* remained constant. Additionally, the things prior in substance in the first argument are *posterior in generation* (a4–5), but the eternal sensible substances of the second argument are *not posterior in generation* to anything, indicating that something important has changed in Aristotle's discussion of substantial priority.

There is one more aspect of Peramatzis' interpretation I wish to consider. How does [PIB] treat the examples of capacities and their exercises in Θ 8, examples which I discussed at length in my own interpretation? This may turn out to be *the issue* in deciding whether to accept [PIB] as a viable interpretation over others. Fortunately, unlike the case of the eternal and perishable substances in the second argument, Peramatzis does discuss how [PIB] would apply to the cases of capacities and their exercises, though he does not develop this application in the body of the paper. Here is what he says:

Such 'non-substance' cases can also be understood as making more concrete the claim put forward at a9–10 that potentiality (e.g. capacity possession in the examples) is for the sake of the end, the actuality (e.g. capacity exercise). My account of [PIB] seems to apply to such cases too. For example, a person's seeing (capacity exercise) cannot exist without his or her sight (capacity possession, a type of potentiality). But his or her seeing, its being what it is, makes his or her sight what it is but not conversely: for the latter is what it is for the sake of the former being

⁶¹ κατά τε δὴ τοῦτον τὸν λόγον φανερὸν ὅτι πρότερον τῆ οὐσία ἐνέργεια δυνάμεως (1050b3–4).

⁶² Burnyeat *et al.*, *Notes*, 144, also point out this apparent oddity. Makin's explanation for the shift ("Priority," 237) works rather well in the context of his own interpretation, so this point would not apply to him.

what it is, while the converse does not hold good (1050a10–13). These are cases where the result or the final cause is not over and above ($\pi\alpha\rho\dot{\alpha}$) the exercise itself, but is immanent in the employment of a capacity (a23–5; a34–b2).⁶³

While I certainly agree that sight is for the sake of seeing, but not conversely, I think the interpretative claim Peramatzis makes here is highly questionable: "But his or her seeing, its being what it is, makes his or her sight what it is but not conversely." But it seems to me that it is the converse which is in fact the case. The fact that a certain activity is the kind of activity it is depends on the capacity of which, as a matter of empirical fact, it is an exercise: the underlying capacity is what makes the activity what it is as opposed to something else (i.e., some other activity). That a given activity is an instance of *seeing*, for example, and not house-building or theorizing, is made so by the nature of the capacity that, as a matter of fact, is being exercised. It is because the *capacity* for seeing is the kind of thing it is that its exercise is, consequently, the kind that it is. Thus [PIB] handles the examples in the way opposite to how it should. For here we have a set of cases, namely non-product-yielding capacities and their exercises, where the items *posterior* in *logos* are [PIB] prior to the others.

What about the cases in which a product comes to be?

By contrast, in cases of production the result is something over and above the capacity exercise: for example, a house exists even if/when there is no housebuilding (capacity exercise, a type of actuality). Further, this housebuilding activity is ontologically dependent upon the form or $\tau \epsilon \lambda o \varsigma$ of a house (as the latter en-forms the complete house, the end result of housebuilding): what it is to be the relevant activity depends on what it is to be a form or $\tau \epsilon \lambda o \varsigma$ of a certain type.

⁶³ This is from his long note 44 on pages 227–8. The subsequent quotations are part of the same.

Let us pause momentarily and grant Peramatzis his position here: "housebuilding activity is ontologically dependent upon the form ... of a house" and the activity's being what it is depends on the form's being what it is. But what follows from this once we recall Aristotle's characterization of a *technē* as a form in the artisan's soul? The art of building is the form of the house in the builder's soul, as the medical art is the form of health in the doctor's. Thus from the fact that the activity ontologically depends upon the form, it follows that the activity ontologically depends upon the capacity, i.e. the form in the soul, the conclusion opposite to what Peramatzis is after. This confirms what I argued above, although now for product-yielding capacities as well: the activity is made the kind of activity it is by virtue of the underlying capacity, the reverse of what [PIB] would have.

He continues:

Even so, however, the relevant activity is ontologically prior to the potentiality of the corresponding type: for what it is to be this type of capacity (e.g. the capacity of housebuilding) depends on what it is to be the relevant type of activity (e.g. housebuilding). This corresponds to the definitional relations between the two items: a capacity of a certain type is defined in terms of, or as a capacity for, exercising the relevant type of activity. Although, in cases of production, the end result (e.g. the completed house) is the teleological bedrock and is ontologically prior to the relevant activity, yet this activity is ontologically and teleologically prior to the capacity or the potentiality. For the activity is directly dependent upon the end result or $\tau \epsilon \lambda o \varsigma$, while the capacity only indirectly, via the activity itself. This, I think, is the point of the remark made at 1050a27-8: the complete house (fully en-formed by the form of a house) is the ultimate teleological principle ($\xi v \theta \alpha \mu \epsilon v \tau \epsilon \lambda o \varsigma$), while the activity of housebuilding (even if posterior to the completed house) is teleologically prior to the relevant capacity ($\xi v \theta \alpha \delta \epsilon \mu \epsilon \lambda \lambda o v \tau \epsilon \lambda o \varsigma \tau \eta \varsigma \delta v v \epsilon \lambda o \varsigma$).

While it is easy to accept the definitional priority of the activity over the capacity, the case for the [PIB] correlate of this priority collapses given the considerations I raised

above. Moreover, this is a misreading of the text at 1050a27–8. The whole sentence reads:

And since the exercise (χρῆσις) is a terminus (ἔσχατον) of some (for example seeing [is the terminus] of sight, and no other thing comes to be from sight besides this), but from others a thing does come to be (for example a house comes to be from the art of building in addition to building itself), nevertheless [the exercise] is no less an end in the former sort of case (οὐθὲν ἦττον ἔνθα μὲν τέλος), and in the latter it is more of an end than the capacity (ἔνθα δὲ μᾶλλον τέλος τῆς δυνάμεως); for building is in the thing being built, and it comes to be and is at the same time as the house.⁶⁴ (1050a23–28)

Aristotle is contrasting cases of capacities that do not result in a product ($\xi\nu\theta\alpha$ $\mu\dot{\epsilon}\nu$) with ones which do ($\xi\nu\theta\alpha$ $\delta\dot{\epsilon}$). If the $\xi\nu\theta\alpha$ $\mu\dot{\epsilon}\nu/\xi\nu\theta\alpha$ $\delta\dot{\epsilon}$ contrast is taken to be between the completed house and the activity, then the $\delta\mu\omega\varsigma$ clause must be taken as continuing the parenthetical remark begun with ofov in line 26. But then the sentence has no main verb.

There is yet one more possibility, not mentioned by Peramatzis, in which [PIB] might work. Recall the second way in which *energeia* is prior in time to *dunamis*. The one studying to be a builder or a kithara player must actually build or actually play the kithara if he or she is to acquire the capacity and become a professional artisan. Here is a way in which the activity makes the capacity what it is, for it is by the music student's playing of the kithara and by the apprentice's building of houses that each acquires the kind of capacities they eventually do. The capacities they acquire are the kind of things they are (versus some other kind of capacity) owing to the doing of these very things which they are capacities for.

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⁶⁴ ἐπεὶ δ'ἐστὶ τῶν μὲν ἔσχατον ἡ χρῆσις (οἶον ὄψεως ἡ ὅρασις, καὶ οὐθὲν γίγνεται παρὰ ταύτην ἔτερον ἀπὸ τῆς ὄψεως), ἀπ'ἐνίων δὲ γίγνεταί τι (οἶον ἀπὸ τῆς οἰκοδομικῆς οἰκία παρὰ τὴν οἰκοδόμησιν), ὅμως οὐθὲν ἦττον ἔνθα μὲν τέλος, ἔνθα δὲ μᾶλλον τέλος τῆς δυνάμεώς ἐστιν·

Although this does give us a way in which the activity makes the capacity the kind of thing it is, there are two reasons for thinking that it will not ultimately rescue [PIB]. First, Aristotle contends that the amateurish acts of kithara playing and housebuilding do not really count as *energeia* proper. The *energeia* proper is that which the dunamis is for the sake of. Yet the capacity is not for the sake of the amateurish activities, but only professional ones. Recall that the case of students of theory who theorize in order to have the capacity does not count as a counterexample to Aristotle's teleological position: "they do not theorize but rather [act] in such a way" (1050a13-4); that is, their "theorizing" is not properly the energeia which is the telos of the dunamis. The second problem for [PIB] is that amateurish acts are done under the guidance and supervision of the teacher, a professional artisan. And what is ultimately guiding the amateurish activities of the student is the *dunamis* in the teacher's soul. The student's activities are made the kinds of things they are by the dunamis, not yet in the student of course, but in the teacher. Thus the activities that make the student's forthcoming dunamis the kind of thing it is (as [PIB] would have it) are made the kinds of things they are by the very same dunamis (as [PIB] would have it not), though not yet the student's own. Thus [PIB] fails to handle the important cases of capacities and their exercises, and accordingly cannot provide an interpretation of priority in substance at $\Theta 8$ 1050a4–b6.

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Finally, I wish to further defend the so-called splitting strategy, that is, the view that when Aristotle references priority in *ousia* in the final argument of Θ 8, he understands it differently than he did in the argument for the substantial priority of

correlative actuality. I certainly agree with Jonathan Beere's claim that, "Within Θ 8 itself, Aristotle's argument is our best clue to what Aristotle means by priority in being for perishable things".⁶⁵ The details of the argument are our best guide for interpreting priority in *ousia*. Another point on which I agree with other interpreters is that we need to look elsewhere in the corpus to interpret Θ 8, especially the controversial argument for the substantial priority of correlative actuality at 1050a4–b6. Yet here too, Aristotle's text is our best clue for identifying which passages in the corpus are most relevant for constructing an interpretation.

In *Physics* 8.7, there is an extended discussion of priority, just as there is in Θ 8. The kinds of priority distinguished here are existential priority, priority in time, and priority in substance.⁶⁶ Interestingly, these three kinds of priority are also applied in Θ 8.⁶⁷ In the *Physics*, Aristotle argues that locomotion is existentially prior to the other forms of motion, concluding, "There is no necessity for the subject of locomotion to be the subject either of increase or of alteration, nor need it become or perish; on the other hand there cannot be any one of these processes without the existence of the continuous motion imparted by the first mover."⁶⁸ This is the same notion of priority used in the final argument for the priority of actuality in Θ 8 (1050b6–34), and the subject matter to which it is applied is similar as well. Sublunary processes (and hence sublunary

^{65 &}quot;Priority in Being," 435.

⁶⁶ 260b15–19, quoted above, p. 79.

⁶⁷ Priority in *logos* is left out in *Physics* 8.7. I stressed above that the fact that locomotion is *not* prior in *logos* to the other kinds of motion (yet it is prior in substance) is problematic for certain interpretations of substantial priority.

^{68 260}b26–29, Revised Oxford Translation.

substances) are existentially dependent on the continuous motions of superlunary substances, and particularly the sun, which is in turn dependent upon at least some of the nested spheres beyond it.

Next in the *Physics*, Aristotle argues that locomotion is prior in time to the other motions, "for this is the only motion possible for eternal things" (261b29–30, ROT). Continuous circular motion, a form of locomotion, must be the way in which eternal sensible substances move (as he explains later on, 261a27ff.). The point he then makes in the context of temporal priority is also made in $\Theta8$: "It is true indeed that, in the case of any individual thing that has a becoming, locomotion must be the last of its motions; for after its becoming it first experiences alteration and increase, and locomotion is a motion that belongs to such things only whey they are perfected" (260b30–33, ROT). After some more elaborations on this point, ⁶⁹ he then goes on to argue that locomotion is prior in substance to the other kinds of motion.⁷⁰ What is prior in time is, from a different perspective, also posterior in time and in generation, since in the case of *individually* generated things the phenomenon in question emerges at the end of its development. The same consideration provides a transition from priority in time to priority in substance in Θ 8, just as it does in the *Physics* (but not in Δ 11). Priority in time is a genetic relation in *Physics* 8.7 as it is in Θ 8 (but not in Δ 11), and posteriority in generation is importantly connected with priority in substance in both texts (but not in $\Delta 11$).

⁶⁹ 261a1-12.

⁷⁰ 261a13–26, quoted on p. 27.

Now, conclusive evidence for the splitting strategy in $\Theta8$ comes from *Physics* 8.7 for the following reasons. The order of discussion in $\Theta 8$ is (A) priority in time, (B) the controversial priority in substance, (C) priority in substance again (equivalent to existential priority). Non-splitting strategists want B and C to be the same notion of priority in ousia. Yet in *Physics* 8.7, the order is (D) existential priority (260b19–29), (E) priority in time (260b29–261a12), and (F) priority in nature and substance (261a13–26). D and F are split by Aristotle himself (and not just by interpreters), since he places his discussion of priority in time in between them. Thus splitting B and C in Theta Θ 8, which utilize the same priority notions as F and D, respectively, is highly warranted, especially given the internal evidence for the splitting strategy I noted above. The fact that Aristotle does not call existential priority "priority in substance" in *Physics* 8.7 as he does in the final argument of $\Theta 8$ is certainly worth noting, but this point is surely insufficient to outweigh the other correlations, especially since he does call existential priority "priority in substance" in $\Delta 11$ and elsewhere.⁷¹ The $\Delta 11$ definition applies to the second argument only (1050b6ff.). Anyone who believes that the $\Delta 11$ definition of priority in nature and substance is to be applied to the controversial penultimate argument needs to explain why the $\Delta 11$ notion is clearly at play at *Physics* 8.7 260b19–29, and yet this argument is split off from the priority in nature and substance argument at 261a13— 26, while the latter quite clearly utilizes the same notion of priority as the penultimate argument of Θ 8.

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⁷¹ Cf. Meta. M.2, 1077a36–b4, and of course Θ8 1050b19.

Finally, although Aristotle does refer to the fact that eternal substances are prior in ousia to perishable substances in the fourth and final argument of $\Theta8$, it is not in fact entirely clear that he is arguing here that energeia is prior to dunamis in this way. Priority in ousia is existential priority here, as all the interpreters other than Peramatzis agree, but as we shall see in the next chapter, the final kind of priority that energeia has (and here we are no longer talking about the correlative variety of energeia) is something that goes beyond existential priority. It is to that discussion that we now turn.

Chapter 4: A More Authoritative Kind of Priority

"Actuality is also prior to potentiality in a more significant way." So goes one interpretation of the brief introduction Aristotle wrote for his final discussion of the priority of actuality in $\Theta8$. Aristotle's words here are literally, "Moreover, also more authoritatively."⁷² Two possible lines of interpretation immediately present themselves: (1) Aristotle is continuing his argument for the priority of actuality in substance, but this priority relation will now in some way be more authoritative than it was before, and (2) Aristotle is contending that actuality is prior in yet a fourth way, in addition to, and more authoritative than, priority in substance, in time, and in account. The first reading gains some support from the fact that when Aristotle originally introduced his discussion of the priority of actuality at the chapter's beginning, only three kinds of priority were listed.⁷³ The second reading takes Aristotle's opening words as introducing a new kind of priority altogether; Aristotle may simply not have a name for this kind of priority, which would account for why it is not listed at the chapter's beginning. Alternatively, one might hold that Aristotle does have a name for this priority relation, that it is in fact "priority in substance," but that it is either a completely separate or at least partially distinct notion of substantial priority from what came before it; therefore it would be best to see a fourth, independent argument for the priority of actuality introduced here.

Fortunately the disagreement between readings (1) and (2) turns out to be rather minimal so long as there is agreement about the notion of priority at play in the final

⁷² άλλὰ μὴν καὶ κυριωτέρως (1050b6).

⁷³ 1049b10–12. Makin, *Book* Θ , 208, stresses this point.

argument. It is over Aristotle's notion of substantial priority used in the preceding argument that most of the controversy lies. Regarding the final argument, everyone seems to agree that the notion of priority involved here is ontological or existential priority, and this can be maintained whether or not one opts for reading (1) or (2). Ontological priority is found where one class of things can exist without another class of things, but not vice versa; more formally, A is ontologically prior to B if A can exist even if B does not exist but B can exist only if A exists.⁷⁴ An interpreter, however, who opts for reading (2) and who questions whether the priority relation is one of ontological priority, does stand in sharp contrast to the received view. Such a position is the one I in fact take. While I certainly do not contest the view that ontological priority is an authoritative kind of priority, it simply is not the only thing Aristotle could have had in mind when he labeled this priority "more authoritative." I do not deny that ontological priority plays an important role in the argument, but a close reading of this passage shows, I think, that Aristotle is referencing ontological priority in order to *support* the kind of priority he believes actuality enjoys over potentiality, not to illustrate it. More specifically, the fact that eternal substances are ontologically prior to perishable substances is part of the reason that actuality is prior to potentiality in a more authoritative way. But this more authoritative priority is itself not in fact ontological priority. It is an unnamed priority relation applicable to contexts in which being actually

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 $^{^{74}}$ Of course, ontological priority *can* very well be distinct from existential priority, depending on how one defines it and on the context. Here in $\Theta 8$ they are typically treated as equivalent, though Peramatzis (discussed in the previous chapter) distinguishes them but does not explain how eternal substances are [PIB] prior. See pages 71–3.

in the non-correlative sense is contrasted with being potentially.⁷⁵ Let me now outline my interpretation before turning to the text itself.

Aristotle first argues that no eternal substance is potentially, but all of them are actually (1050b7–18). This point applies to the substantial being of eternal substances, and not to whatever qualitative or topical being they may also have (b17–18). Eternal substances are actually in the non-correlative sense because they do not have matter for being the substances they are, and hence are not subject to passing away. Perishable substances, by contrast, rely on matter not only for their substantial being (they are, of course, composites of matter and form), but for their being in motion as well (b27–28). Hence they cannot be actually in the non-correlative sense, since their substantial being is always accompanied by the possibility of not being, i.e. by the passing away of those substances. When Aristotle contends here that actuality is prior to potentiality in a more authoritative way, he is arguing that the way in which eternal substances are the substances that they are is metaphysically superior to the way in which perishable substances are the substances they are. He is not construing eternal substances as actualities and perishable substances as potentialities, and then arguing that since the former are prior in substance (or ontologically prior) to the latter, actuality is thus prior to potentiality in the same way. That is how the argument is typically interpreted, but this is simply not what I take Aristotle to have intended. The more authoritative priority of

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 $^{^{75}}$ Note what the Londinenses say about Aristotle's conclusion at 1050b2-4 of the *preceding* argument: "We could not find a satisfactory answer to the question why, in advance of the $\varkappa\nu\varrho\iota\omega\tau\dot{\epsilon}\varrho\omega\varsigma$ argument of 6 ff., it is already clear that actuality is prior $\tau\dot{\eta}$ οὐσί α to potentiality" (Burnyet *et al.*, *Notes*, 144). I take the answer to be that Aristotle has already finished his argument for the substantial priority of actuality once he begins his argument for the more authoritative priority of actuality.

actuality (i.e. the priority that is more authoritative than those priorities already discussed in Θ 8), is established by—at a minimum—the following three states of affairs: (1) being actually in the non-correlative sense brings about the possibility for eternal being (1050b7–18), (2) eternal substances are ontologically prior to perishable substances (b6–7), and (3) things in the sublunary realm imitate imperishable things (b28–30). Such in outline is the interpretation I defend below. Let us now look more closely at the details.

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Aristotle begins his treatment of the more authoritative kind of priority by citing the substantial priority of eternal substances over perishable substances (1050b6–7). This relation is typically taken to be that of ontological or existential priority, and this is surely right. The next move Aristotle makes is to argue that no eternal substance is potentially, but all of them *are actually* (b7–18). The status of *being actually* is then said to belong also to certain substances that exist by necessity, to eternal motions, and to states of being moved eternally.

Moreover, actuality is prior in a more authoritative way as well; for eternal things are prior in substance to perishable things, and nothing eternal is potentially. Here is the argument: every potentiality is, at the same time, a potentiality for the opposite; for while that which has no potential for existing would not exist in any subject, that which does have potential for existing, in each case, admits of not being actual. Therefore, what has potential for being admits of both being and not being. The same thing, then, has potential for both being and not being. And that which has potential for not being admits of not being; but that which admits of not being is perishable, either without qualification or in the very respect which it is said to admit of not being (either in respect of place, or in respect of quantity, or quality; and 'without qualification' means with respect to substance). Therefore, none of the things that are, without qualification, imperishable, is, without qualification, potentially (but nothing prevents its being potentially in some respect, for example, in quality or in place); they all, then, are actually; and among the things which are [without qualification] necessary, none of them is, without qualification, potentially (and yet these are primary; for if they were not,

nothing would be). And if any motion is eternal, it too is not potentially; and if anything is in the state of being moved for eternity, it is not in virtue of a potentiality that it is moved (save for its being whence and whither, since nothing prevents its having matter for that). Wherefore sun and stars are eternally active, as is the entire heaven, and it is not to be feared they will ever stop (as the philosophers concerned with nature fear). And they do not tire in doing this; for their motion, unlike that of perishable things, does not involve a potentiality for the opposite, making the continuity of their motion laborious; for it is substance which is matter and potentiality, not actuality, that is the cause of this. (1050b6–28)

Eternal substances are, without qualification, actually, and never are, without qualification, potentially. That is to say, with respect to substantial being (as opposed to qualitative, or quantitative being, etc.), eternal substances are actually, and not potentially. This is the principal position defended in the text above, and it is probably as awkward in Aristotle's Greek as it is in English. Fortunately, I adopt some conventions that make things less verbose.

In this context it is evident that the correlativity of actuality and potentiality does not have a central role. Aristotle's focus is not on change from a potential state into an actual state and the contrast between the two states. Correlative actuality and potentiality were the focus in the preceding arguments of Θ 8, but now something new is brought into the discussion. This is most evident from the fact that Aristotle insists eternal substances are actually, and yet never is there any potentiality preceding their being actual. Furthermore, since mature *perishable* substances are actually as well (when they have fully come into being), the way eternal substances are actually must be different from the way perishable substances are actually or the argument has no point; so this important difference between the two needs to be signified in some way. Accordingly, I will simply use italics to indicate the contrast between *non-correlative* actuality and

potentiality. I express Aristotle's point as follows: Eternal substances are actually. Implied by the italics are two things: (1) it is only one category of being that is said to be actual (only quality, or only quantity, or only substantial, etc.), and (2) "actually" and "potentially" are being used in their non-correlative senses (contrasted with, for example, the statement that a boy is a man potentially and the grown man he later becomes is a man actually). Most cases of being actually concern substantial being, but as Aristotle insists in the above passage, motions can also be actually, a thing can be moved actually, and a thing can move actually. So when I say that the sun is actually and that its motion along the ecliptic is actually, what this statement means is that with regard to the substantial being of the sun (simply its being the sun) and its ecliptic motion, the sun's being these things does not involve any potentiality for being them; accordingly, there is no potentiality for not being them either. There is here a case of substantial being and a case of motion without any underlying potentiality or capacity. The nature of this way of being, and its contrast with being that depends on "the substance which is matter and potentiality," will occupy us throughout this chapter.⁷⁶

It is important to note that *being actually* is quite different from existing actually. Taking the sentence "Socrates *is actually*" to mean the same as "Socrates exists actually" is similar to equating the meaning of "Socrates is a man" with "Socrates exists." I do not concern myself with actual and potential *existence*, notions which I think are less clear

⁷⁶ It is worth citing the similar language of another author here, as I did in the introduction. Jonathan Beere writes, "[I]f something is eternally a certain way, then its being that way is not the exercise of any capacity ... 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 ... In general, for any eternal thing, its being what it is, is simply a self-standing *energeia*, rather than the exercise of an underlying capacity." *Doing and Being*, 314–16.

and less helpful than actual and potential being (and *actual* and *potential being*). The being of both correlative and non-correlative actuality and potentiality is always a predicational way of being, a being φ , such as being a man, being the sun, being in motion from Athens to Thebes, or being in motion along the ecliptic.

Now an important question immediately arises that can be answered briefly now, but will be covered more thoroughly later on. If eternal substances are actually as Aristotle contends, does that mean perishable substances are potentially? The answer to this must be no. Strictly speaking, a perishable, composite substance is neither actually nor potentially in the non-correlative sense. However, the matter of a perishable substance is potentially the kind of substance the perishable substance is, and the form of a perishable substance is actually the kind of substance the perishable substance is. For example, Socrates' proximate matter is man potentially, and his form is man actually.⁷⁷ Yet, one might ask, is not the contrast between Socrates' matter and his form a correlative contrast, as is the contrast between man and boy? The answer is that Aristotle does sometimes focus on the correlative contrast in being between matter and form, namely, when he is focusing on the generation of a composite substance. But in other contexts the focus is on the nature of material substance as such (or on that of formal substance as such). Part of Aristotle's concern in the Metaphysics is with the nature of matter, and his view is that matter, in every case, is potentially that which it is the matter for; and matter is potentially regardless of whether it is the matter of an actual

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⁷⁷ This is what Aristotle contends solves the problem of the unity of a natural substance in H6: "[T]he proximate matter and the form are one and the same thing, the one potentially, the other actually" (1045b18–19, *Revised Oxford Translation*). I discuss this H6 passage in the final chapter.

the same time; for example, matter that *is potentially* man also *is potentially* not man. A potentiality for something is always a potentiality for the opposite, as Aristotle says in the text above ("every potentiality is, at the same time, a potentiality for the opposite" 1050b8–9), and matter is the substance which is potentiality (b27–8). Matter is the cause which can both be and not be, as he often says. Matter is potentially in the non-correlative sense because, strictly speaking, matter as such never changes from a potential to an actual state; *enformed* matter is something that is actually, but the substance matter, as understood in the *Metaphysics*, is theoretically distinct from enformed matter (i.e. the composite) and has potential being only; hence matter *is potentially*. So it is important to guard against inferring that since eternal substances *are actually*, perishable substances must *be potentially*. The latter status belongs only to the material substance, not to any composite.

The preceding paragraph outlines my view of Aristotelian matter as non-correlative potentiality. I believe that when Aristotle wrote the *Metaphysics* (and especially ZHΘ), he was developing a more sophisticated notion of matter than had been at play in the physical works. However, since matter is not a principle of the primary substances of the *Metaphysics* (which are to be understand *qua* beings in terms of non-correlative actuality and not in terms of potentiality), there is here not much application of this understanding of matter (the one notable exception being the explanation for the unity of a compound substance in H6). In the final chapter we will examine more closely

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⁷⁸ For example, *Meta*. Z7 1032a20–22, quoted below.

Aristotle's characterization of matter as non-correlative potentiality, but here let me quote some of the passages from the *Metaphysics* which show how this notion of matter is developing. In Z15 he writes:

There is no definition or demonstration of the particular sensible substances because they have matter, the nature of which is such as to admit of both being and not being; wherefore all the particulars among these are perishable.⁷⁹

In Z3:

I mean by matter that which in its own right (*kath hautēn*) is neither a something, nor a particular quantity, nor any of the other ways we have distinguished being 80

In Z7:

Everything that comes to be either by nature or by art has matter; for each of these is capable of both being and not being, and this [capacity] is the matter in each thing. 81

In H1:

By matter I mean that which not being a this something (*tode ti*) actually is a this something potentially ... That the matter too is substance is clear.⁸²

And in $\Theta8$:

Every potentiality is, at the same time, a potentiality for the opposite ... for it is substance which is matter and potentiality, not actuality, that is the cause of this [laboriousness and hence perishing of motion].⁸³

 $^{^{79}}$ Z15 1039b27–31. διὰ τοῦτο δὲ καὶ τῶν οὐσιῶν τῶν αἰσθητῶν τῶν καθ' ἔκαστα οὕτε ὁρισμὸς οὕτε ἀπόδειξις ἔστιν, ὅτι ἔχουσιν ὕλην ἡς ἡ φύσις τοιαύτη ὥστ' ἐνδέχεσθαι καὶ εἶναι καὶ μή· διὸ φθαρτὰ πάντα τὰ καθ' ἔκαστα αὐτῶν.

 $^{^{80}}$ Z3 1029a20–21. λέγω δ' ὕλην ἣ καθ' αύτὴν μήτε τὶ μήτε ποσὸν μήτε ἄλλο μηδὲν λέγεται οἶς ὥρισται τὸ ὄν.

⁸¹ Z7 1032a20-22. ἄπαντα δὲ τὰ γιγνόμενα ἢ φύσει ἢ τέχνῃ ἔχει ὕλην· δυνατὸν γὰο καὶ εἶναι καὶ μὴ εἶναι ἔκαστον αὐτῶν, τοῦτο δ'ἐστὶν ἡ ἐν ἑκάστω ὕλη.

 $^{^{82}}$ H1 1042a27–28, a32. ὕλην δὲ λέγω ἢ μὴ τόδε τι οὖσα ἐνεργεία δυνάμει ἐστὶ τόδε τι ... ὅτι δ' ἐστὶν οὐσία καὶ ἡ ὕλη, δῆλον.

 $^{^{83}}$ Θ8 1050b8–9, b27–28. πάσα δύναμις ἄμα τῆς ἀντιφάσεώς ἐστιν ... ἡ γὰο οὐσία ὕλη καὶ δύναμις οὖσα, οὐκ ἐνέργεια, αἰτία τούτου.

The very nature of matter is such as to admit of both being and not being, and, importantly, this phenomenon is what accounts for perishability. Perishing or destruction happens because there is matter, the substance which *is potentially*. Matter *is potentially* because matter as such or in its own right never is or becomes anything actual; rather, something actual comes to be out of the matter and the matter is always and simultaneously this thing potentially in the non-correlative sense, both before and after it comes to be.

Now I want to stress that this characterization of matter begun in Book Z is important, at least in part, because it ultimately helps us to understand why actuality is prior to potentiality in the more authoritative way. It does so by helping us appreciate how eternal being is grounded in actuality and how perishable or finite being is grounded in potentiality. The argument quoted above and discussed at length below does more than simply highlight the intuitive superiority of eternal being over perishable being; it emphasizes how eternal being is connected with non-correlative actuality and how perishable being is connected with material substance, which properly understood is dunamis or potentiality. The characterization of matter as what can both be and not be begun in Z, and the reworking of matter as potentiality in H, help prepare the way for understanding how actuality is prior to potentiality in the more authoritative way. Precisely because eternal substances *lack* matter (in the relevant ways) helps to bring out why their way of being actually is superior to the way of being actually found within the sublunary realm. Without these important connections between matter, potential being, and perishability on the table, the core of Aristotle's argument for the priority of actuality in the more authoritative way would be reduced to *merely logical differences* between eternal being and finite being. But surely that is not what he intended. As will become evident in the chapters that follow, the more authoritative kind of priority actuality enjoys over potentiality is part of what Aristotle needs in order to construct his own positive account of the non-sensible separate substances—one of the primary objectives of his first philosophy. The final argument here of $\Theta 8$ looks forward to the material of $\Lambda 6$ –7, and so in effect the notion of matter developed in ZH Θ helps prepare for the argument of $\Lambda 6$ –7 as well. In the final chapter we will return to the topic of matter as non-correlative potentiality, and further discuss how ZH Θ prepare for the treatment of actuality in Λ .

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Returning to the text, Aristotle argues that all eternal things *are actually*, and that none is potentially. As one of his premises for this conclusion he notes, "while that which *no* potential for existing would not exist in any subject, that which *does* have potential for existing, in each case, admits of not being actual" (b9–11). Sitting, having a head, being tall, being a man, are all things that have potential for existing, and they also have potential for not existing. The class of things that cannot exist is less clear. Is Aristotle dealing with physical or metaphysical possibility here, or with some other kind? Fortunately nothing in his argument seems to depend on resolving this, so I will not pursue it. But it is worth noting that he begins the argument by talking about the possibility and impossibility of the beings *predicated* of a subject, while towards the end he is clearly talking about the perishability (or imperishability) of the subjects themselves. Surely when he wrote, "that which admits of not being is perishable, either

without qualification or in the very respect which it is said to admit of not being," it is the subject or substance which is said to be perishable, either with respect to its substantial being, or its place, quantity, quality, etc. (b15). Clearly he has moved at some point from the modality of the predicates to the modality of the subjects bearing them, but it is not clear at what point he does this. The implicit premise justifying this move is something like the following: if some predicated being can exist, then there is some subject that can possess the being named in the predicate. Since there is no reason to question this premise, there does not seem to be any problem with Aristotle's move. Let us then move on.⁸⁴

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Aristotle concludes that every thing which is, without qualification, imperishable, is, without qualification, actually (b16–18). In other words, all imperishable **substances** are actually. Note that he does not yet say that all imperishable **things** are actually. His expansion of being actual to include not only eternal substances, but also their motions and states of being moved, comes shortly after his conclusion that all imperishable substances are actually. Fortunately, he does not need a separate argument to defend this, since his argument as it is works not only for substantial being but for the other forms as well. What he concludes again is this:

Therefore, none of the things that are, without qualification, imperishable, is, without qualification, potentially (but nothing prevents its being potentially in some respect, for example, in quality or in place); they all, then, are actually; and among the things which

⁸⁴ For more detailed discussions of the argument at 1050b8–18, see Makin, $Book\ \Theta$, 208–215, and Dancy, "Prioriy," which is especially thorough. Their accounts of Aristotle's logic seem to me consistent with my own, but the way I interpret his conclusion is quite different.

⁸⁵ Recall that "without qualification' (haplôs) means with respect to substance" (b16).

are [without qualification] necessary, none of them is, without qualification, potentially (and yet these are primary; for if they were not, nothing would be). And if any motion is eternal, it too is not potentially; and if anything is in the state of being moved for eternity, it is not in virtue of a potentiality that it is moved (save for its being whence and whither, since nothing prevents its having matter for that). (1050b16–22)

But before Aristotle takes up eternal motions, he makes a remark about necessary beings, or, as I interpret him, about beings which are *without qualification* necessary.⁸⁶ All other interpreters take Aristotle to be reiterating the same point he has just made, the only difference being that he now refers to the class of entities in question as "necessary" rather than as "eternal" and "imperishable." But the Greek text is better read as making a statement about the beings that are *without qualification* necessary, and these are only a subset of the necessary beings.⁸⁷ In particular, they are the non-sensible, unmoved movers of the eternal sensible substances. Aristotle is then not repeating a point he has just made, but is saying something notably different. He is saying that not only do the unmoved movers have the status of *being actually*, but if they did not exist, nothing would exist, including the eternal sensible substances. All of the cosmos is dependent on these imperceptible substances, both the sublunary and superlunary realms. Aristotle

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⁸⁶ Being necessary without qualification ($hapl \hat{o}s$) is said to be the kind of necessity that belongs to the unmoved mover of the first heaven in $\Lambda 7$ (1072b13). Presumably any other celestial unmoved mover would also possess this status. Aristotle discusses the kind of necessity that belongs to things that do not admit of being in more than one state at the end of $\Delta 5$ (1015b9–15). This text evidently applies to the unmoved movers, since he describes the unmoved mover of the first heaven as not admitting of being otherwise in any respect in $\Lambda 7$ (see 1072b7–8, b13, and my chapter 6 below).

⁸⁷ See $\Delta 5$, 1015b9-11. In $\Theta 8$, one needs to supply *haplôs* from the end of line 16 at the end of line 18. Aristotle makes his first point when he writes that the beings which are imperishable without qualification are not potentially but rather *are actually*; he then makes a second point by saying that this also holds for beings which are by necessity without qualification. (*Oude* indicates a new point, as it does twice again in line 20.) That the focus of his first point was on eternal *sensible* substances is evidenced by the fact that he says here, "nothing prevents them from being potentially in a certain respect, for example, in quality or in place" (b17–18). Yet this would not be true of *non-sensible* eternal substances, which *are* prevented from being potentially in any respect. His second point then, to which he attaches his claim about ontological priority (b19), is about *non-sensible* eternal substances, i.e. those eternal substances that are necessary without qualification (see the preceding note).

himself says so explicitly in Λ 7; having established that there must be at least one unmoved mover, namely that of the first heaven, he then writes:

On such a principle heaven and nature depend. (1072b13–14)

Now we should not take Aristotle in $\Theta 8$ to be saying that if the substances which are necessary without qualification did not exist, then necessarily, nothing at all could be able to exist. That is too strong a reading, since there could be a world in which the theory of Anaxagoras or that of Democritus was true. Rather his point is surely just that the cosmos as we know it, our world, would not exist if these substances did not exist. Furthermore, presumably Aristotle thinks it is possible for the divine minds to exist even if eternal *sensible* substances did not exist. So, stepping back from the text a moment, if he were to claim that a certain class of privileged entities is primary because if they did not exist, nothing would exist, we would expect him to make this point about his non-sensible, separate substances, i.e. the unmoved movers, and not about eternal substances in general. And that is exactly what he did when he wrote here, "and yet these are primary; for if they were not, nothing would be."

In the light of the proper interpretation of the above passage, we must stress that it is not a reiteration of the claim Aristotle made at the beginning of the argument. There he claimed, "eternal things are prior in substance to perishable things." Further into the argument he now claims that the eternal substances that are necessary without qualification are prior in substance to everything. These two claims about ontological priority in Aristotle's argument have been very important for other interpreters in defending the view that the kind of priority Aristotle is attempting to establish here

between *actuality and potentiality* is ontological priority, or priority in substance so understood; these two references to ontological priority within the argument have been thought by others to be saying the same thing. But that they are not saying the same thing should give us pause to rethink the standard interpretation. I do not think this interpretation has been entirely discredited at this point, but we are left with some notable worries about it. My own view is that the substantial priority of eternal substances over perishable ones is cited in order to support the more authoritative priority of actuality over potentiality, but it does not exemplify this relation. Further support for the priority of actuality stems from the contrast between *being actually*, the way of being for eternal substances and their motions, and the way of being for perishable substances and their motions; the latter involves *being potentially* and requires the substance which is matter. One way of being is superior to and more authoritative than the other, as evidenced by the fact that perishable substances are ontologically posterior to eternal substances. Let us then return to considering this superior way of being and why it is so.

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In addition to the substantial priority of eternal substances over perishable ones, the more authoritative priority of actuality over potentiality is supported by the fact that being actually allows for the possibility of eternal being. If there is to be eternal being, there must be a being actually in respect of whatever category of being is to be eternal (whether an eternal substance or an eternal motion, etc.). Having established the actual being of eternal substances, their motions, and their states of being moved, Aristotle now comments on these substances more specifically:

Wherefore sun and stars are eternally active, as is the entire heaven, and it is not to be feared they will ever stop (as the philosophers concerned with nature fear). And they do not tire in doing this; for their motion, unlike that of perishable things, does not involve a potentiality for the opposite, making the continuity of their motion laborious. For it is substance which is matter and potentiality, not actuality, that is the cause of this. (b22–28)

Let us consider the "substance which is matter and potentiality" for local changes of perishable substances. Elsewhere in the *Metaphysics* Aristotle writes:

We do not say that Socrates comes to be without qualification whenever he becomes beautiful or musical, nor do we say that he is destroyed whenever he loses these states, because the underlying thing, Socrates himself, remains. (A3 983b13–16)

That matter, too, is substance, is clear; for in all opposite changes there is something to underlie the changes; for example, with respect to place it is what is now here but later elsewhere, and in increase it is what is now of a particular size but later smaller or larger, and in alteration it is what is now healthy but later sick. (H1 1042a32–36)

In the case of local changes, the matter for the change will always be the perishable substance itself whose change it is, just as it is for qualitative change, increase, and alteration. It may seem odd that a fully developed composite substance can also function as matter, or be material substance, but that this is Aristotle's view is well supported. I take Aristotle to have importantly differentiated Socrates the *compound substance* from Socrates the *material substance*; they are not distinct in number, but are so as follows. Socrates the compound substance is potentially musical before he learns music (and actually not musical), and once he has learned music he is now actually musical (and no longer potentially musical). This is a well-known doctrine from the *Physics* and concerns correlative actuality and potentiality. In the *Metaphysics* Aristotle's focus is often on non-correlative actuality and potentiality, as it is in the final argument for the priority of actuality in Θ 8. Assuming it is possible for Socrates the compound substance to become musical (which possibility may not be guaranteed to everyone), Socrates the material

substance *is potentially musical* and *is potentially not musical*, simultaneously, both before and after he studies music. The material substance does not change its status from being potentially F to being potentially not F, or vice versa, whenever the compound substance itself changes from being potentially to being actually (or vice versa). Material substance is simply what can both be and not be, and this is Socrates *qua* material substrate; matter has being only in relation to what it is the matter of, and it has potential being only and not actual being. In its own right, or in virtue of itself (*kath hautēn*), matter is not anything in particular: "I mean by matter that which in its own right (*kath hautēn*) is neither a something, nor a particular quantity, nor any of the other ways we have distinguished being" (Z3 1029a20–21). The material substance Socrates (the underlying thing) is just the thing that can be both musical and unmusical. And surely the *compound* substance Socrates, by contrast, is something in its own right, i.e. a human being.

Let us now contrast the substantial being of a sensible eternal substance with that of a perishable substance. In order for there to be a perishable substance, the man Socrates let us say, there must be material substance which is man potentially. This material substance will be man potentially so long as Socrates is alive, but it will simultaneously be potentially not man, and so he will eventually die. (This substance is what is often called the proximate matter of Socrates.) Note that since this substance can never be actually (or actually) man, its being potentially man (with the italics) is an instance of non-correlative potentiality. This material substance does not exist of its own accord, but is ultimately brought into existence out of the four elements (earth, air, fire,

and water) by external forces. The initial composition was the work of Socrates' parents, and will in turn be sustained by Socrates' own soul. The fact that this material substance is, and must be, ultimately composed from the four elements accounts for why the compound substance Socrates will eventually pass away.88 The continuity of compounded substantial being requires labor, and the forces sustaining such being ultimately tire and the being comes to a stop; "the substance which is matter and potentiality, not actuality, is the cause of this," says Aristotle regarding the laboriousness of the motions of perishable substances, but the phenomenon also applies to their substantial being and for the same reason. The reason is that compounded substantial being "involves the potentiality for opposites," in this case, the potentiality for being man and for being not man, had by the matter, ultimately composed of the four elements, of the compound. Now in contrast to Socrates' matter, his form is man actually. The form of a compound substance is actually what the matter is potentially.⁸⁹ Yet the compound itself neither is actually man nor is potentially man. Socrates the compound is actually a man only in the sense of standing in a correlative relation to the younger organism that was still only potentially a man.

Contrast this manner of substantial being with that of a sensible substance which *is actually*, such as the sun. Such a substance cannot be generated, nor can it pass away. It must either be eternal or it must pass into and out of existence without ever undergoing any process of coming to be or passing away. It has no matter from which it could come

⁸⁸ See On Length and Shortness of Life, chapters 2 and 5, and De Caelo II.6 288b15–18.

⁸⁹ The central contention of H6.

to be, and accordingly no matter into which it could pass away. That is to say, it does not have genetic matter, though it may have matter for other, non-substantial categories of being, as the sun has topical matter. The substantial being of such a substance is not the result of a combining of other substances which are, thereby, prior to it. In Z3, Aristotle says of the compound, "it may be dismissed, for it is posterior [to form and matter]" (1029a31). This derivative way of being a substance is surely not the highest form of substantial being for Aristotle. While it is true that natural composite substances are composed from a substance that is more fundamentally a substance (i.e. the form), the composites themselves do not thereby share this status. Perishable substances have essence, form, or soul as their primary substance; the what it is to be man is the primary substance of Socrates and the cause of his being. But there is no definition of "sun" and accordingly no essence of sun, by contrast, as there is for man. 90 The existence of certain substances, both sensible and non-sensible, are just primitive facts about Aristotle's universe, the sun being one of them, the essence of man being another. There is no causal history to the presence of the sun in our world, and any such substance is one that is actually. The eternal sensible substances have this status, as do their non-sensible unmoved movers; substantial forms, or essences, have it as well. They all are actually; they are the substances they are sui generis, with no reason outside of themselves for their being.

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⁹⁰ See *Meta*. Z15.

Actuality is prior to potentiality because, in part, the substances which are actually are existentially prior to the substances which lack this way of being actual; the temporary existence of the posterior beings is dependent on matter, the substance which is potentially. Being actually, accordingly, is a higher and more authoritative way of being for a substance to possess, since having this status means the substance need not have any reason outside of itself for being the substance that it is. *Being potentially*, by contrast, is found among those substances that require outside causes for their substantial being, causes which account for why their form came to inhere in their matter, and, importantly, this causal history is ultimately to be traced back to those substances which are actually. Aristotle does not elaborate here on the particular way in which perishable substances depend on eternal ones, but just asserts that they do so. His focus is on the contrast between two ways of being actual, one for eternal substances and one for perishable substances, and how one way of being is superior to the other. The bulk of his discussion quoted so far has, it seems to me, been geared towards supporting the notion that it is being actually which makes eternal being possible, whereas being potentially is always incompatible with eternal being. Actuality is then prior to potentiality, since eternal being is manifestly superior to temporary and dependent being.

We need to caution against equating *being actually* with being eternally—they are not the same. While everything that is eternal *is actually* on Aristotle's theory, not everything that *is actually* is eternal. Aristotle's view seems to be that a perishable substance's form or soul comes into existence without any process of coming to be, and

goes out of existence without any process of passing away.⁹¹ The compound substance itself of course comes to be and passes away, but not its form; the form in the matter of each perishable substance, each individual form, is not eternal. Yet the texts clearly contend that form *is actually*.⁹² While there are states of affairs that account for why an individual form came into existence and will later go out of existence, neither of the four causes Aristotle recognizes are causes *of the form* of the generated living thing, but only of the living thing itself. Yet even if one entirely rejects individual forms in Aristotle, there is still good evidence that *being actually* is not equivalent to *being eternally*. In *Metaphysics* A6, Aristotle allows that the night of the theologians and the primeval mixture of Anaxagoras, had they existed for an infinite time as their defenders believed, would nevertheless not instantiate actually but only potentiality.⁹³ So something's being eternally is not the same as its *being actually*, and if individual forms pop into and out of existence, then there are things which *are actually* but are not eternal.

Now Aristotle's argument does not take the form, since certain substances are actually, they must, therefore, be eternal. Rather he assumes that certain substances are eternal, and argues that since they are eternal they must be actually, at least with respect to their substantial being. But when you consider what is involved in this special way of being, being actually, as I have described above, and why perishable substances cannot have it, it is evident that being actually is what allows for eternality. And since sublunary substances cannot be actually, since they rely for their substantial being on material

⁹¹ See *Physics* VIII.6 258b10–259a6, *Meta*. H3 1043b14–18, *Meta*. H5 1044b21–29.

⁹² As in the previous argument at 1050b2-3, but more generally in *Meta*. H.

⁹³ See 1071b22–1072a9, and especially the last sentence.

substance which, given its very nature, *is potentially*, sublunary substances cannot be eternal. And thus potentiality is posterior to actuality in a significant way, since the substances which depend on potentiality for their substantial being cannot be what they are eternally; they *must* perish, and their having matter is why they must.

All interpreters (other than Peramatzis) contend that Aristotle is arguing, as his main conclusion of the argument, that actuality is prior in substance to potentiality; that is, actuality is existentially prior to potentiality. But one of the problems with this interpretation is that it overlooks the case of the substantial forms of perishable substances, which are primary substances, which do not come to be or pass away, and which are actually. Yet these substantial forms or souls, even though they have none of the four causes, are nevertheless existentially dependent on the eternal substances just as are the perishable substances whose forms they are. If there were no eternal substances and eternal motions, there would not be any perishable substances, and so there would be no substantial forms. But the problem then is that it looks as though Aristotle is making a major mistake in his argument, since he is overlooking the fact that some substances which are actually are existentially dependent on the very set of privileged substances referred to in the argument as being actually. While this is consistent with the priority of eternal substances, it is not consistent with the priority of actuality. Some substances which are actually in the non-correlative way (i.e. forms) are existentially posterior. Furthermore, since Aristotelian forms are immanent, they are not existentially prior to their composites and to the matter they enform, and so actuality cannot be existentially prior to potentiality and thus it cannot be prior in substance to potentiality either. It is the eternal substances that are existentially prior, not actuality. So, either Aristotle makes a mistake or it is not his contention in this argument that actuality is existentially prior to potentiality. Thus my position that the more authoritative kind of priority is not simply priority in substance all over again (which argument Aristotle said was concluded at 1050b3–4, for which see my note 75 above) is a preferable alternative to the received view.

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But why is this priority a more authoritative one, and why does Aristotle not have a name for it? I can only gesture towards why he thinks of it as "more authoritative," since Aristotle's calling it such is partly subjective on his part. It clearly has to do with the subject matter; not only is the nature of substantial being central to the discussion, but in particular the substantial being of those eternal substances on which the sublunary realm depends. He seems to encompass the whole of reality in his discussion, as well as its hierarchical structure, and that is why the priority here is more authoritative than the kinds he has discussed earlier in the chapter; they, by contrast, have a more limited scope. As to why it is unnamed, it is likely because this is the only instance in which this priority relation is found. Other kinds of priority have many instances, yet this is a unique relation that holds only between the way of being for eternal substances and the way of being for perishable substances; it is hard to see how it could hold of anything else. Aristotle is not then concerned in the final argument with getting actuality and potentiality to fall under a preconceived notion of priority; rather, his focus is on the

overall hierarchical structure of reality, and showing how *being actually* is the primary way of being for a substance or a motion to have.

There is another extended discussion of the priority of actuality in the corpus, namely in $\Lambda 6$, and there too the priority relation is unnamed. Aristotle's focus there is not so much on contrasting the ways of being that eternal and perishable substances have, but on the role that actuality, and things which *are actually*, have as principle or origin $(arch\bar{e})$ of the rest of the cosmos. It is apparent there that the priority of actuality is quite significant for Aristotle's metaphysical theory, for he uses it to prove important details about the primary, eternal substances of the cosmos (both sensible *and* non-sensible) and also the eternal motions. In the following chapters, I discuss all of this in detail, and in the next chapter I argue that the kind of priority actuality enjoys in $\Lambda 6$ is the more authoritative kind of priority of $\Theta 8$ (a connection that others appear not to have made). Thus it becomes even more evident after considering the material in Λ how this kind of priority is significant and authoritative, and its importance for Aristotle's metaphysical project will again be revisited in the final chapter.

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So far we have considered two of Aristotle's main reasons for maintaining the more authoritative priority of actuality. They are that *being actually* is what is required for eternal being, and that substances relying on potentiality for their substantial being are ontologically dependent on those which *are actually*. There is yet a third reason supporting the priority of actuality, namely, that imperishable things are imitated by things subject to change.

And the things that undergo change, like earth and fire, in fact imitate the imperishable things; for these too [earth and fire] are always active; for they have their motion in virtue of themselves, and in themselves. But, from what we distinguished, all the other potentialities are for their opposite; for that which has potential for moving something in a specific way can also move it not in that way (at least in the case of rational potentialities); but the same non-rational potentialities will result in their opposite by their being present or not. If then there are certain natures or substances of the sort which those who do dialectic identify as Ideas, something else would be much more knowledgeable than Knowledge itself, and something else more in motion than Motion itself; for these other things are more of an actuality, the Ideas being potentialities for them. And so it is clear that actuality is prior to potentiality and to every principle of change. (1050b28–1051a3)

The changeable things of the sublunary realm imitate the imperishable things; for example, earth and fire in their motions. Presumably there are other examples Aristotle could cite, though it is not altogether clear how far the imitation extends. We know he takes the cyclical pattern of elemental transformations to be an imitation of the circular motion of the imperishable sensible substances. We also know that he understands animal and plant reproduction as the natural way for living organisms to strive towards eternality; it is only through the eternity of the species that living things can partake of the divine and best. Presumably these phenomena could both be cited as evidence of changeable things imitating imperishable things. The example he actually gives, the motions of earth and fire, is difficult to interpret, and has not been properly explained in any of the secondary literature. We will look at it more closely soon, but even more important, I think, is what this discussion about imitation is doing in the larger context it is taken from.

There are two options here. The first is that the passage functions as an addendum to Aristotle's argument for the priority of actuality in the more authoritative

⁹⁴ See De Gen. et Corr. II.10 337a1-7 and De Caelo II.12.

⁹⁵ See GA 731b24–11 and DA 415a23–415b8.

way; he has already given his argument, and turns now to discussion of material somehow related to what came before. This is the view adopted by other interpreters, as far as I can tell, but I am inclined to think it is mistaken. 96 The second option is that Aristotle has not in fact finished his argument for the priority of actuality but is still adducing reasons to establish the priority relation. People who take the more authoritative kind of priority to be simply ontological priority naturally do not see this passage as part of Aristotle's argument, since the presence of imitation does not, at least as it is given here, establish the relation of ontological priority. But one who takes Aristotle's discussion of the more authoritative priority of actuality to be only supported by the ontological priority of eternal substances, rather than illustrated by it, can readily identify this final passage for what it quite naturally seems to be. And that is, as it seems to me, a third and final reason for holding that actuality is prior to potentiality in the way at stake. Intuitively, if x imitates y, then y is prior to x in some way; and we know that imitation was already well advocated as a phenomenon central to the hierarchical structure of reality by the Platonists. Aristotle has already defended the priority of actuality by appealing to the fact that perishable substances are ontologically dependent on eternal substances, and it should be no surprise were he to further defend the priority of actuality by referencing the imitation of those things which are actually by those very things which were dubbed dependent on them. And that is precisely what he is doing, or so I interpret him, and I think the text naturally reads as though it were intended in this way. Let us turn now to the details of the imitation.

⁹⁶ See Makin, $Book \Theta$, 217–220, for an example.

Earth and fire are said to imitate imperishable things on the grounds that they are "always active (aei energei); for they have their motion in virtue of themselves (kath hauta), and in themselves (en hautois)" (b29–30). One might naturally think that the imitation practiced by the elements would center on their cyclical transformations, since this is precisely what Aristotle says elsewhere. But our text does not seem to be saying this at all. Aristotle has just said a few lines earlier that "sun and stars are always active (aei energei), as is the whole heaven," and now he claims, "these too [earth and fire] are always active (aei energei)." Surely the second use of "always active" is supposed to connect back with the first. But the difficulty is seeing how earth and fire could possibly be "always active" in the way the sun, etc., are. The sun is "always active" since it is one, eternal thing that moves eternally; but no specimen of earth or fire is eternal, and so it ipso facto could not move eternally. What, then, is Aristotle's point?

The first thing to notice is that when Aristotle said a few lines earlier that the sun and stars are "always active," the point was specific and limited; in particular, substantial being was not at issue, but only motions and states of being moved. He concludes that because the sun, etc., move without any underlying capacity for motion, "it is not to be feared that they will ever stop." Saying the sun will never stop is weaker than saying the sun will exist eternally in motion; this is because something can be said to never stop even it exists for a finite time, so long as it does not stop while it exists (and what the natural philosophers fear is surely not that the sun, etc., will stop by simply popping out of existence altogether). In order to get the eternal motion of an eternal sun one needs to add to what Aristotle says about the sun's motion never stopping what he has said about

the substantial being of imperishable substances a few lines earlier (particularly b16–18). So, importantly, when he then says that earth and fire are "always active," this does not require that any active earth or fire be eternal.

Next up is to figure out what it means to say of earth and fire, "they have their motion in virtue of themselves ($kath\ hauta$), and in themselves ($en\ hautois$)." Fortunately there are textual parallels that help. In $\Lambda 6$, Aristotle argues that the eternally moving body directly responsible for generation and corruption must have two motions, one in virtue of itself ($kath\ hauto$), and another in virtue of something else ($kat'\ allo$). That it is the sun he has in mind is undisputed (though he does not explicitly say this), and that the motion the sun has in virtue of itself is its motion along the ecliptic is also undisputed. (The motion it has in virtue of something else is its diurnal motion.) Roughly, we might say, it is part of the very nature or substance of the sun to move along the ecliptic. In any case, we can at least say for now that the natural motions of earth and fire parallel that of the sun's motion along the ecliptic, since they are all had in virtue of themselves.

Regarding motions things have "in themselves" (*en hautois*), there is a useful discussion of this in *De Caelo*.

To ask the reason why fire moves upwards and earth downwards is the same as asking why the curable, when moved and changed *qua* curable, progresses towards health and not towards whiteness. All other subjects of alteration are similarly consistent. Again, whatever is capable of growth, when it changes in virtue of this capacity, progresses not towards health but towards increase of size. So it is with everything: one changes within the category of quality, another in that of quantity, and other things again—to wit, the light and the heavy—in place, moving upwards and downwards respectively. The only difference is that the last-named appear to contain within themselves (*en hautois echein*) the

⁹⁷ See 1072a9–18, but particularly 12–13.

principle of change, but the others, such as the curable and the growing, to be changed from outside. (310b16–26, Guthrie trans.)

It is interesting that Aristotle identifies something's growing as an instance of its being "changed from outside," since an organism's own nature (*phusis*) is its principle for growth. What Aristotle has in mind, though, is that the food consumed by the organism acts as the catalyst for growth, and growth does not simply happen on its own but requires this external factor. The motions of the elements, by contrast, do not *require* an outside factor for their occurrence (though such a factor may facilitate the motion by removing any hindrance). For an organism's growth to be like the motions of the elements, it would need to grow without ever consuming any food.

Let us return to the problematic text about the constant activity of the elements. Earth and fire are, he says, "always active (*aei energei*); for they have their motion in virtue of themselves (*kath' hauta*), and in themselves (*en hautois*)." Relevant to this text is what Aristotle says at the beginning of the chapter from *De Caelo* quoted above.

Our own account starts from the determination of a question which some thinkers have found especially baffling, namely, why some bodies always and naturally (*aei kata phusin*) move upwards and others downwards, and others both upwards and downwards... (310a16–19, Guthrie trans.)

Earth, fire, and the other elements are "always active" because when they exist, they always locate themselves in their proper regions. Their motion is not like the local motion of a living thing; when a living thing moves, it exercises a capacity for motion, which it may very well not exercise and hence not move. Even if a living thing has a *capacity* for motion in virtue of itself, such a capacity being a part of its soul, it does not

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⁹⁸ See De Gen. et Corr. I.5 321b32-322a16.

follow that the motions it undertakes when it exercises that capacity belong to it in virtue of itself. The elements, by contrast, have their very motions themselves in virtue of themselves, and so their locating themselves (and not just having a capacity for it) is part of their nature. Just as motion along the ecliptic is built into the very substance that the sun is, so too a tendency towards a particular upwards or downwards motion is built into the very substance that each of the elements is.

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An interpretation along those lines is what I think Aristotle intended for his remark about the imitation of imperishable things undertaken by the sublunary elements. He then contrasts the motions of the elements with the potentialities had by agents and patients, which, unlike the motive principles of the elements, are simultaneously for opposites. Finally it is concluded that the priority of actuality over potentiality presents a problem for the defenders of the Platonic Ideas; the particular exercise of a capacity has more of the nature of actuality than does its universal form, the latter being more akin to potentiality. This would make sublunary things prior to the allegedly superior Ideas, since actuality is prior to potentiality.

Despite Aristotle's disagreement with the Platonists over the role and status universals have in metaphysics, there is nevertheless a clear Platonic influence in his characterization of the hierarchical structure of reality in Θ 8. Aristotle takes as evidence for the priority of a certain domain of reality that another domain of reality imitates it. He also holds that this superior domain is ontologically prior to the imitating domain, and elsewhere says that the notion of ontological or existential priority was "a distinction

Plato used."99 Clearly Plato thought that the Ideas or Forms were ontologically prior to the material particulars that imitate them. The further fact that the compresence of opposites is found among material particulars but not among the Forms, according to Plato, supports the priority of Forms; the material particulars are somewhere in between being and not being, while being proper belongs only to what is eternal and unchangeable. Aristotle too has his own version of the phenomenon of compresence of opposites when he insists that every potentiality is simultaneously a potentiality for the opposite. The substance which is matter and potentiality accounts for the fact that sublunary substances cannot, as individuals at least, enjoy any form of eternal being; perishability is the consequence of having matter, since matter is by its very nature what can both be and not be. By contrast, where substantial being does not depend on matter, but the substance itself is actually, eternal being can be found. The most salient difference between the Platonic and Aristotelian theories here regards the way in which primary substances function as principles (archai) for the dependent substances. In what way are perishable substances ontologically dependent on eternal substances? What factors account for the dependency? Aristotle only mentions the ontological priority of imperishable things in $\Theta8$ to support his position that actuality is prior to potentiality in a more authoritative way; he does not here elaborate on the factors underlying and explaining this dependence. Thus there is more to be said about the authoritative priority of actuality, and fortunately Aristotle does intend to say more about it elsewhere. It is to this topic that we turn in the next chapter.

⁹⁹ *Meta*. Δ11 1019a4.

Chapter 5: Actuality in Λ 6

When one hears about the contrast between actuality and potentiality in ancient Greek philosophy, and the problem of sorting out which is prior to which, one will most likely infer that it is the philosophy of Aristotle being discussed. Such an inference is not really open to challenge. Let us suppose the discussion more specific, however, and in particular, the problem of the prospects for *potentiality* as the prior member of the pair; suppose it is overheard that the solution to this problem was the positing of an eternal actuality. Now if one infers that it was Aristotle himself who originated this solution, here Aristotle's own words would present a challenge to what on the face of it seems a rather straightforward attribution. Aristotle does in fact believe that the positing of an eternal actuality, or more than one, is the solution to this problem; but in $\Lambda6$ he explicitly attributes the discovery of this solution to his predecessors and not to himself. It is Leucippus and Plato in particular who are credited with "positing an eternal actuality ... for they say motion is eternal" (1071b32-33). And a few lines later, Anaxagoras and Empedocles are taken on board as also "bearing witness" to the requirement that first principles be eternally active or actual. But what more specifically is the problem Aristotle takes his predecessors to have solved, and whose solution he himself adopts? The problem is that, on the surface of things at least, every actuality must be accompanied by an underlying potentiality, any actuality being the realization of a potentiality; potentiality, by contrast, need not be accompanied by actuality, since a potentiality need not be realized. Therefore, you can have potentiality without actuality, but you cannot have actuality without potentiality, and that makes potentiality prior to actuality. The solution? It is the positing of eternal actualities, actualities that are not the exercise of any underlying potentiality, that preserves the independence of actuality.

Such is the general thrust of the discussion that occupies the middle of $\Lambda6$. However, actuality and potentiality were not announced as the topic for discussion at the chapter's beginning. Rather, Aristotle had written, "And since there are three substances [i.e. three classes of substances], two of them being the natural substances, and immovable substance the other, concerning this latter it needs be said that it is necessary that there be some eternal, immovable substance" (1071b3–5). None of this prepares us for the long discussion of the priority of actuality that is about to come, but less than half way into the chapter that is where we end up. And it is not until Λ 7 that the initial discussion is resumed. These two chapters comprise one long argument for the necessity of an eternal, immovable substance, together with a rather lengthy digression about the priority of actuality and the views of his predecessors, begun at about one quarter of the way through. But a close look shows that this digression is not at all misplaced, but rather complements the overall argument quite nicely. I need not myself digress on why this is so, other than by noting one important point; and that is, that Aristotle repeatedly makes use of the concept of non-correlative actuality, actuality without any underlying potentiality, in the course of his argument for the existence of an eternal, immovable substance. In fact this is what triggers the digression, and once it is over, Aristotle will continue to apply the concept quite liberally. Thus it should be no surprise were we to find a host of useful information on how Aristotle's theory of non-correlative actuality is to be understood; and that is exactly what we do find, or so I shall argue in this chapter.

We will review all of $\Lambda6$, some of it in considerable detail, and then be more selective with material from $\Lambda7$ in the following chapter. We will find that ideas from $\Theta8$ set out in the previous chapter will again emerge, and the interpretation I defended there will be confirmed and further enhanced. On, then, to the text itself.

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The text of $\Lambda6$ translates as follows, up to the *aporia* at 1071b22.

And since there were three substances [as we said earlier, i.e., three general classes of substance], the natural substances being two and immovable substance the other one, concerning this latter it must be said that it is necessary that there be some eternal, immovable substance. For substances are first among things that are, and if all substances are perishable, all things are perishable. But it is impossible that motion has come into being or that it will pass away (for it is eternal), and so too with time. For there cannot be a before and after without the existence of time. Motion also, accordingly, is continuous, namely in the way time is; for time is either the same as motion or an attribute of it. And motion is not continuous except for motion with respect to place, and of that, only motion in a circle. (1071b2–11)

Moreover, if something is capable of causing change or production but is not in fact acting, there will not be motion; for it is possible that that which has a potentiality not activate it. It is not helpful then even to posit eternal substances, as do those who posit the Forms, unless there is some principle present in them capable of causing change. However, not even this is enough, nor is it enough to posit another substance besides the Forms; for if it does not *act*, there will be no motion. Furthermore, it is not enough even if it acts, but the substance of it is potentiality; for there will not be eternal motion; for that which is potentially admits of not being. It is necessary, then, that there be a principle of this sort of which the substance is actuality. Furthermore it is accordingly necessary that these substances be without matter; for it is necessary that they are eternal, at least if anything else is eternal. They are then actually. (1071b12–22)

It is the second block of text we will need to pay special attention to, but let us situate ourselves within Aristotle's argument first. Aristotle has announced that he will argue for the existence of something (*tina*) which is not only a substance, but also eternal and immovable. Given that motion and time are imperishable, and that "if all substances are

perishable, all things are perishable," it follows that there must be an imperishable third thing, i.e. a substance, since neither motion nor time are substances. That is the main conclusion of the first block, yet Aristotle surely has not established that there is an "eternal, immovable substance." At best he has established that there is an eternal substance that the eternal motion belongs to, but that is *ipso facto* not to establish that there is an eternal *immovable* substance. So there is some room for interpretation here about what Aristotle is doing in the first block. I will give my view and then press on. Aristotle intended, I believe, to prove in the first block only what his argument proves at best, namely, the existence of an eternal *moving* substance. But now that the existence of such a substance has been established, we can raise the questions, why does it move, and what moves it? This could be a means for getting at the existence of an eternal *immovable* substance, and I think Aristotle is doing precisely this.¹⁰⁰

Having established the existence of an eternal moving (or movable) substance, Aristotle now goes on to consider what moves it. It is important to realize that he is not yet, at this point in the argument at least, making any assumptions regarding two important aspects of the mover: (1) whether it is an unmoved mover or not, and (2) how it causes motion (like an ordinary efficient cause, or in some other way). That the mover of the eternal moving substance is itself un moved will not be argued for until the text of $\Lambda 7$; and the manner in which it moves ("as an object of desire and thought") will also not be

 $^{^{100}}$ Such an interpretation seems to be common among both ancient and modern commentators. Enrico Berti, "Unmoved mover(s) as efficient cause(s) in *Metaphysics* Λ 6," in *Aristotle's* Metaphysics *Lamda: Symposium Aristotelicum*, eds. M. Frede and D. Charles (Oxford, 2000), 182, writes: "the kind of substance whose existence is proved by this first argumentation [1071b5–9] is not yet the unmovable, but only the eternal movable substance." His footnote 3 then lists a host of ancient and modern commentators who have noted this very point.

discussed until Λ 7 as well. For now, Aristotle is applying his argument (the second block above) to movers, and agents, in general, not just to the particular one he ultimately wants to get at. The only requirement the mover must satisfy at this point in the argument is that it be responsible for the eternal motion of the eternally moving substance.¹⁰¹

There are two main conclusions Aristotle is driving at in the second block. The first is, "It is necessary, then, that there be a principle ($arch\bar{e}$) of this sort of which the substance is actuality." The mover of the eternally moving substance is the principle the substance of which must be actuality. If the substance of the mover is potentiality, the mover will not be the principle of *eternal* motion, even if the mover is itself an eternal substance (as is a Platonic Form). The second main conclusion is that the substances responsible for causing eternal motions "are actually." This second conclusion unfortunately involves a textual difficulty, and admits of two other possible translations as well: (1) "They are actuality," and (2) "They are actualities." Below I will argue that "They are actually" is the preferred reading, but let us first focus in detail on how Aristotle arrives at the first conclusion.

One of the primary goals of this chapter is to come to an understanding of what Aristotle *means* by his two conclusions mentioned in the last paragraph. What is the metaphysical theory underlying what he has written in our text? No one has adequately captured it, I believe. It will turn out, as we will see shortly, that incorporating material from $\Theta 8$ is the key to interpreting this passage of $\Lambda 6$ correctly. This passage from $\Lambda 6$ is

¹⁰¹ What I have just said in this paragraph is quite controversial (but I think well supported by the text). For example, it undermines the use of this passage to support the view that Aristotle's unmoved mover is an *efficient* cause; for which see Berti, "Unmoved mover(s)," 181–206.

in some ways a compressed version of material Aristotle covers more thoroughly in $\Theta8$. By bringing these two passage together, and showing that they *ought* to be brought together, I lay a significant part of the foundation for the interpretation I defend. So we will proceed by moving through this passage of $\Lambda6$ (the second block) a second time, but much more slowly, and sentence by sentence. Let us see where this leads us.

Moreover, if something (ti) is capable of causing change or production but is not in fact acting, there will not be motion; for it is possible that that which has a potentiality not activate it.

Άλλὰ μὴν εἰ ἔστι κινητικὸν ἢ ποιητικόν μὴ ἐνεργοῦν δέ τι, οὐκ ἔσται κίνησις ἐνδέχεται γὰρ τὸ δύναμιν ἔχον μὴ ἐνεργεῖν. (1071b12–14)

The point is that, *at a minimum*, any mover responsible for causing a change or motion (*kinēsis*) needs to be actually moving, or actually acting, i.e. actually causing the motion or change. It is not enough just to *have* the potentiality (*dunamin*) for causing the motion, since something can have the potentiality but not exercise or activate it. Note that this point holds very broadly; it applies to anything (*ti*) which is capable of causing change (*kinētikon*) or production (*poiētikon*). (The latter is more restrictive, since it requires a patient and does not allow for self-change.) Aristotle's point, on my reading, covers the whole range of candidate causes of *kinēsis*, and not just the unmoved mover of the first heaven. Yet others believe that this sentence applies to the unmoved mover only, and thus see it as evidence that Aristotle considers the unmoved mover an efficient cause. But I think it is better to read Aristotle as simply intending to apply this more general point to the particular mover he is ultimately after, rather than as saying something just about this mover. So, the first requirement set out is that the mover of the eternal moving

substance be actually moving. This requirement, however, is not sufficient for eternal motion, as becomes clear a few lines later.

It is not helpful then even to posit eternal substances, as do those who posit the Forms, unless there is some principle present in them capable of causing change. However, not even this is enough, nor is it enough to posit another substance besides the Forms; for if it does not *act*, there will be no motion.

οὐθὲν ἄρα ὄφελος οὐδ' ἐὰν οὐσίας ποιήσωμεν ἀϊδίους, ὥσπερ οἱ τὰ εἴδη, εἰ μή τις δυναμένη ἐνέσται ἀρχὴ μεταβάλλειν· οὐ τοίνυν οὐδ' αὕτη ἰκανή, οὐδ' ἄλλη οὐσία παρὰ τὰ εἴδη· εἰ γὰρ μὴ ἐνεργήσει, οὐκ ἔσται κίνησις. (1071b14–17)

This passage by itself implies that positing the Forms or "another substance besides the Forms" such as the Mathematicals, *would* be helpful here *if* there is also posited a potentiality for causing motion in these substances *and* this potentiality is activated. Just having eternal substances by themselves cannot account for motion, but there must be some additional feature of those substances, the potentiality for causing motion, if they stand a chance of doing the work required of them; and they will do this work only if their potentiality is exercised. But, Aristotle is about to deny what he has just claimed, for such acting substances are still not sufficient to account for eternal motion.

Furthermore, it is not enough even if it acts, but the substance of it is potentiality; for there will not be eternal motion; for that which is potentially admits of not being.

ἔτι οὐδ' εἰ ἐνεργήσει, ἡ δ' οὐσία αὐτῆς δύναμις· οὐ γὰρ ἔσται κίνησις ἀΐδιος· ἐνδέχεται γὰρ τὸ δυνάμει ὂν μὴ εἶναι. (1071b17–19)

Even if you posit an eternal substance with the potentiality to cause motion, and you specify that this substance activates its potentiality and so does in fact cause motion, still, it is not sufficient to account for *eternal* motion. If the substance of the moving principle is potentiality, then even if the moving principle is itself an eternal substance, it still

moves by means of a potentiality ($\delta v \dot{\alpha} \mu \epsilon t$). In $\Theta 8$, doing something, or being something, by means of a potentiality was biconditionally related to perishability. Every potentiality for something is simultaneously a potentiality for the opposite. So any potentiality for moving is also a potentiality for not moving, and so the moving will itself be perishable even if the mover is not. Here in $\Lambda 6$ Aristotle says, "that which is potentially admits of not being," and in $\Theta 8$ he was more specific:

That which has potential for not being admits of not being; but that which admits of not being is perishable, either without qualification or in the very respect which it is said to admit of not being (either in respect of place, or in respect of quantity, or quality; and 'without qualification' means with respect to substance). (1050b12–16)

A mover which admits of not moving will be the cause of perishable motion only. But Aristotle has already established (he believes) that there is an eternal motion, and so a mover whose substance is potentiality cannot be the cause of this motion. The first main conclusion, then, is thus:

It is necessary, then, that there be a principle of this sort of which the substance is actuality.

δεῖ ἄρα εἶναι ἀρχὴν τοιαύτην ἦς ἡ οὐσία ἐνέργεια. (1071b19-20)

The mover is a principle $(arch\bar{e})$, and the substance of this principle must be actuality and not potentiality. This is the first positive characterization of the mover Aristotle has established so far (i.e. established by argument, rather than having merely asserted). The question is, what does it mean, precisely, that the substance of this mover is actuality rather than potentiality? This is not an easy question to answer, and on my view one cannot answer it solely from the material given in $\Lambda 6$ and 7, but must look elsewhere in the corpus to produce an adequate interpretation. Just as $\Lambda 6$ begins with material that

relies heavily on texts outside of Λ (i.e. with the points that time and motion are eternal, that time is either the same as motion or an attribute of it, and that there is no continuous motion other than circular local motion¹⁰²), so too the next section of Λ 6, which establishes that the substance of the mover is actuality, presupposes material outside of Λ 6. And on my view, it is material in Θ 8 that it presupposes. In a moment we will see where that takes us, but first a look at what on the face of it seems a promising interpretation of the passage.

The interpretation goes: when Aristotle says that the substance of the mover must be actuality and not potentiality, his point here is that the mover is itself an actuality, and in particular, a "pure actuality." This is supported by $\Lambda 7$, where he says that the mover of the first heaven is itself an actuality, and also says that it cannot be otherwise in any respect. And that is the point he is making here, which is of course intimately connected with the point that the mover is an *unmoved* mover. Since an actuality is not susceptible to being otherwise, an actuality is itself unmoved. Thus Aristotle's main point here, when he concludes that the substance of the mover must be actuality, is that the mover is a "pure actuality" and that it moves without being moved and without the possibility of being moved or changed in any respect. 103

But there are several problems with this interpretation, or at least several weaknesses. The first is that the point that a substance is itself an actuality, or a "pure actuality," is importantly separate from the point that a substance is such as to cause

102 See, of course, *Physics* VIII.

¹⁰³ This is the kind of interpretation defended by Berti, "Unmoved mover(s)," 190. It represents, more or less I think, the way the passage is most often taken.

eternal motion. In fact, Aristotle seems to have just appealed to this very distinction. Platonic Forms and Mathematicals are themselves pure actualities (or at least would be if they were real things), but Aristotle has just ruled them out as candidates for being the mover he is arguing for. The fact that something is a "pure actuality" has nothing to do with whether it can be a principle of eternal motion. In fact, something could very well be a principle of eternal motion and nevertheless admit of being otherwise. The sun, for example, is the moving principle of the eternal alternations between generation and corruption, but is not itself a "pure actuality" since it has topical matter. Furthermore, the first heaven is the cause of the eternal diurnal motion of the sun, 104 i.e. an eternal circular local motion, but the first heaven is not itself a "pure actuality." Let me quote a sentence from Berti to further pinpoint the problem:

If there is—as does exist—an eternal movement, i.e. the movement of the heaven, and if the potentiality admits the possibility of not acting (as the concept of potentiality requires), the cause of this movement must be pure actuality, because if it were potential, even only in part or under some aspect, concerning this part and this aspect it might not act, i.e. not move [the heaven], and consequently for some moment the movement of the heaven might not exist, which is impossible. 105

The problem is that if there is some aspect in which the mover changes, it would not follow from that alone that the mover could not be the cause of the eternal motion of the heaven. After all, the heaven is the cause of the sun's eternal diurnal motion and the heaven does admit of change in some aspect, namely with respect to place. So long as the mover of the first heaven is such as to never stop moving the heaven, whether it can

 104 See $\Lambda6$ 1072a9–18 with Ross's commentary *ad loc*. We will of course be looking at this passage later on.

¹⁰⁵ "Unmoved mover(s)," 190. Michael Frede takes the same (incorrect) position: "[A]Il unmoved movers have to be pure actualities, if they are to guarantee the eternal motion of the object they move." Introduction to *Aristotle's* Metaphysics *Lamda: Symposium Aristotelicum*, eds. M. Frede and D. Charles (Oxford, 2000), 29 *et passim*.

change in any other respect would not affect its status as a moving principle. So when Aristotle says that the substance of the moving principle must be actuality, we need an interpretation which focuses more on the mover as a moving principle, and less on whether this moving principle, considered in its own right, is a pure actuality or not. Let us see now how Θ 8 helps us accomplish this goal.

In Θ 8 Aristotle argues that no eternal substance *is potentially*, but that they all *are actually*. Initially, he is explicit that this applies to their substantial being only, since they can be the substances they are, *actually* (i.e. without any underlying matter or potentiality for their substantial being), and nevertheless still have potentialities for other kinds of being. He then says that the same characterization applies to eternal motions and to eternal states of being moved:

If any motion is eternal, it too is not potentially; and if anything is in the state of being moved for eternity, it is not in virtue of a potentiality that it is moved (save for its being whence and whither, since nothing prevents its having matter for that). Wherefore sun and stars are eternally active, as is the entire heaven, and it is not to be feared they will ever stop (as the philosophers concerned with nature fear). And they do not tire in doing this; for their motion, unlike that of perishable things, does not involve a potentiality for the opposite, making the continuity of their motion laborious; for it is substance which is matter and potentiality, not actuality, that is the cause of this. (1050b20–28)

It is the point made in the last sentence which provides the key to interpreting the above $\Lambda 6$ passage properly. Aristotle says here in $\Theta 8$ that the motion of the heavenly bodies does not depend on a "potentiality for the opposite," and the absence of such a potentiality allows for their motions to be eternal. Contrastingly, motions which are exercises of potentialities have to come to a stop sooner or later, and "it is substance which is matter and potentiality, not actuality, that is the cause of this." What it means to

say that the substance of something in motion is potentiality involves two claims: (1) The substance in motion has a capacity or potentiality (*dunamis*) for the kind of motion that it is undergoing, and (2) the substance that is in motion can both move and not move (it will move when its capacity is exercised and not move when its capacity is not exercised). When Aristotle says that the reason some motions must come to a stop is owing to "substance which is matter and potentiality," we can ask, what specifically is this substance he is referring to? There are two possible answers here, corresponding to (1) and (2) above. It could be the potentiality that the substance has for being in motion, such as the potentiality a human being has for walking. But this is unlikely to be what Aristotle had in mind since he does not call the capacities substances possess "matter." So then, the substance which is matter and potentiality is what is described in (2), namely, the very thing which can both move and not move; this is the matter (or underlying thing, as he calls it elsewhere), and the fact that it can both move and not move prevents its motion from being eternal.

Eternal motions, by contrast, require the substance which is actuality. This likewise involves two claims: (1) The substance undergoing eternal motion does not have the capacity or potentiality (*dunamis*) for the kind of motion it is undergoing, and (2) it is part of the very nature of this substance that it be in motion. In the case of the sun, it is simply built into the substance that the sun is that it move along the ecliptic; its motion is not the exercise of any underlying potentiality for motion.¹⁰⁶ Sublunary elements, such

¹⁰⁶ Here I agree with Frede, introduction, 17, when he writes, "[The celestial spheres] move the way they do because it somehow is their nature to move not just in this sort of way, but precisely in the way they do.

as earth and fire, imitate this kind of motion, since it is in their very nature to move to a certain location. Similarly, to say that the substance of something which *causes* motion is actuality involves two claims: (1) the mover causes motion not by exercising any capacity or potentiality (dunamis), and (2) it is part of the very nature, or the very substance that the mover is, that it cause motion. And so when Aristotle concludes in $\Lambda6$ that, "it is necessary, then, that there be a principle of this sort of which the substance is actuality," he needs to be interpreted as making such a set of claims. The moving principle of the eternal motion moves without exercising any capacity, and it is part of the very substance that the mover is that it cause motion. Forms and Mathematicals are ruled out as candidates for being this moving principle, since there does not appear to be anything about them as such which could be responsible for motion. Aristotle has not told us yet what kind of substance he envisions the mover as being (though he will in Λ 7), but is just setting out a condition that it must satisfy. The moving principle must be such that it is part of the very substance, or the very nature, of this mover that it cause motion; it must not be true of it that it can both move and not move, and so it must not move by exercising a potentiality. This is his point when he concluded that the substance of the moving principle must be actuality.

But to say that the substance of the mover must be actuality is strictly a point about its status *as a mover*, and not a point about the substantial being the mover has is in its own right as an independent substance. Earth and fire move to their proper places

It somehow must be their nature to move precisely in this way, since they never deviate from the way they have been moving all along."

simply in virtue of being the things they are, but their doing this does not guarantee that their motion is eternal or that they themselves are eternal. So the point that the substance of the moving principle, as a moving principle, is actuality, is importantly distinct from whether the moving principle, considered as a substance in its own right, is an eternal substance or not, and whether it *is actually* or not. So one would expect Aristotle to say something more about this substance as such. And that is precisely what he does on my interpretation when he then draws his second conclusion:

Furthermore it is accordingly necessary that these substances be without matter; for it is necessary that they are eternal, at least if anything else is eternal. They are then actually.

ἔτι τοίνυν ταύτας δεῖ τὰς οὐσίας εἶναι ἄνευ ὕλης· ἀϊδίους γὰρ δεῖ, εἴπερ γε καὶ ἄλλο τι ἀΐδιον. ἐνεργεία ἄρα. (1071b12–22)

The point Aristotle makes here applies not just to the one moving principle argued for so far, but to any other substance that belongs to the same kind as it.¹⁰⁷ They are eternal "if anything else is eternal," where the referent of "anything else" could be time, motion, the substances in eternal motion, or perhaps a combination of these. But more interesting is the argument Aristotle makes that "these substances be without matter" since "they are eternal." This seems on the face of it a serious, unexplainable mistake since Aristotle clearly allows that some eternal substances do have matter (e.g., topical matter). But we must recognize that the claim "these substances are without matter" is ambiguous, admitting of two interpretations: (1) these substances *have* no matter at all, and (2) these substances are the substances they are without matter, i.e. with respect to substantial

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 $^{^{107}}$ Aristotle is anticipating the question he asks at the end of the Λ 7, and answers in Λ 8, about the number of unmoved movers his system requires. For further discussion, see Berti, "Unmoved mover(s)," 191-2, who similarly interprets the plural.

being (being $hapl \hat{o}s$) these substances do not have matter. On my view, reading (2) must be accepted, and when this passage it put within its proper context of Θ 8, it is evident that (2) must be accepted. This brief argument in $\Lambda 6$ is simply an abbreviated version of a longer argument in $\Theta8.^{108}$ There Aristotle argued in more detail that eternal substances must be actually, that is, with respect to their substantial being (being haplôs), they cannot have matter (though nothing prevents their having matter for other things). And it is precisely because they are eternal that he requires their being actually. So too in Λ 6, any substance which functions as a moving principle of an eternal motion must be actually, because it too must be eternal. This second conclusion is then different from the first conclusion, that the substance of the moving principle must be actuality and not potentiality. The first conclusion says something about these substances in so far as they are moving principles (archai), while the second conclusion says something about them in so far as they are substances (ousiai) in their own right. The moving principles must both be actually (since they must be eternal), and they must have some characteristic which causes motion that is simply built into their very nature (to be explained in Λ 7), and which is not an exercise of any potentiality. This, then, takes us to the *aporia*.

But before discussing the *aporia*, I need to say a bit more to defend my interpretation. My view relies on reading ἐνεργεία ἄρα, "they are then actually" at 1071b22, but both Ross and Jaeger print ἐνέργεια ἄρα, "they are then actuality." Against Ross and Jaeger, there is a significant amount of evidence in the manuscripts that Aristotle wrote an iota at the end of this word, and I think the inclination to read ἐνέργεια

¹⁰⁸ In particular, 1050b8–18.

is owing to Aristotle's own use of this word a few lines earlier (line 20, as Jaeger indicates in his apparatus) combined with much uncertainty as to what Aristotle is actually saying. But the fact that Aristotle starts a *new* argument at line 20 (*eti toinun*) undermines borrowing the singular form from the previous argument, especially since he has now switched to the plural (*tas ousias*) and *energeia* lacks agreement. The question then is whether to read ἐνεργεία (dative) with me or to read ἐνέργειαι (nominative plural), as does Berti. Berti's interpretation of the text is this:

The conclusion of the passage, *energeiai ara*, would be that all the unmovable movers, not only the first, being the cause of eternal movements, are pure actualities, and even activities. ("Unmoved mover(s)," 192)

Above, however, I argued that to interpret Aristotle's first claim, that the substance of the moving principle ($arch\bar{e}$) is actuality, as saying that the mover is itself a "pure actuality," is mistaken; so this interpretation will not do. Plus, Berti's reading simply does not seem to fit with what Aristotle is doing in this short argument. Aristotle is adding a *further qualification* (eti) required by any substance responsible for eternal motion; it is hard to read this passage as saying that the point just made applies also to any other substance of the kind. Best, then, to read ἐνεργείᾳ ἄρα (dative), following Θ8 1050b18, where Aristotle concluded about all eternal substances, ἐνεργείᾳ ἄρα πάντα, "they are all, then, actually." And as in Θ8, where Aristotle treated his idea that eternal substances are actually as separate from his idea that the substance of an eternally moving substance is actuality and not potentiality, so too in $\Delta 6$ he has one argument establishing that the substance of the moving principle must be actuality, and then a second argument

establishing that this moving principle, and any principle like it, must itself be a substance which *is actually*.

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The argument for "an eternal, unmovable substance" is interrupted at this point and is not resumed again until $\Lambda 7$. Aristotle now digresses on an *aporia*, the problem being that it seems, at any rate, that potentiality is prior to actuality; but Aristotle has been arguing that it is actuality that characterizes the first moving principles. The discussion translates as follows:

And yet there is a difficulty (*aporia*); for it seems that everything actual has potentiality but not everything potential is actually, so that potentiality is prior [since there can be potentiality without actuality but not actuality without potentiality]. However if this is so, none of the things that are will be; for it is possible that something be potentially but not yet be. Moreover, if it is as the theologians say who generate [the world] out of night, or as the natural philosophers say, "all things were together," the same impossibility results. (For how will they be set in motion if there is not some cause in actuality? For the wood at any rate will not move itself, but the builder's art [moves it]; nor will menstrual fluids and earth [move themselves], but seeds and sperm [are required to move them].)

Wherefore some [philosophers] posit an eternal actuality, as do Plato and Leucippus; for they say motion is eternal.

But *why* there is eternal motion, and what kind of motion it is, they do not say; nor do they say the way it goes or give its cause. For nothing is moved at random, but something must always be present, as now a thing is moved by nature in one way, but in another way by force—either by mind or by something else. Next, what sort is primary? [They do not say.] For this makes a huge difference. Moreover, Plato cannot say here what he elsewhere thinks is the principle, i.e. that which moves itself; for the soul is later [than motion] and is simultaneous with the heaven, as he says.

To think, then, that potentiality is prior to actuality, is in one way right, but in another way not right, and it has been said how. But that actuality is prior

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¹⁰⁹ Reading οὐδὲ ώδὶ οὐδὲ τὴν αἰτίαν with the Mss.

Anaxagoras bears witness (for Mind is actually 110), as does Empedocles (Love and Strife), and those who say motion is eternal, as does Leucippus.

So there was no Chaos or Night for an infinite time, but the same things are eternally, either by means of a cycle or in some other way, since actuality is prior to potentiality. (1071b22–1072a9)

It seems that whenever there is actuality, there must also be potentiality, since for there to be actuality there must be potentiality that has been actualized. By contrast, potentiality can be without actuality, since a potentiality simply need not be realized. This would make potentiality prior to actuality, which runs counter to the view Aristotle has been developing, and hence the *aporia*. The solution to this problem was given by Aristotle's predecessors, even if they did not use Aristotelian concepts, who posited the existence of an eternal actuality, in this case, eternal motion. An eternal actuality is not the exercise of any potentiality, and so it turns out you can in fact have actuality without potentiality. This alone does not make actuality prior to potentiality, but it does mean that potentiality cannot be prior to actuality, or at least not universally so. When Aristotle wrote, "to think, then, that potentiality is prior to actuality, is in one way right, but in another way not right, and it has been said how," his point is that it is right to think that potentiality is prior so long as one has not taken on board any eternal, non-correlative actuality; but once such actuality has been recognized it is no longer correct to think potentiality is prior.111

¹¹⁰ Reading ἐνεργεία with the Mss.

¹¹¹ Others see a reference to Θ8 here, but I do not see why that is required. The inferential $d\bar{e}$ that begins this sentence would naturally suggest that Aristotle's point follows from things he has written here, not elsewhere.

But Aristotle's discussion does not merely establish that potentiality is not prior to actuality, it also, apparently, supports his contention that actuality is prior to potentiality. After all, several Pre-Socratic philosophers are cited as "bearing witness" to the priority of actuality. Yet actuality cannot be prior on the grounds that non-correlative actualities can be without potentiality, since this would overlook correlative actualities. To insist that actuality is prior along such lines would gainsay the force of the argument that shows that potentiality is not prior to actuality. In what way, then, is actuality prior to potentiality?

The answer has to do with the connection eternal actuality has with what are in the end the ultimate principles of the universe on certain philosophical theories. Aristotle explicitly cites Anaxagoras and Empedocles as "bearing witness" to the priority of actuality, and that they bear witness comes from the positing of Mind (*Nous*) by Anaxagoras, and Love and Strife by Empedocles, as principles which ultimately account for why our world is the way it is. Aristotle explicitly says that Anaxogoras' Mind "is actually" (*is actually* on my interpretation), and he implies the same about Empedocles' Love and Strife. This is of course reminiscent of Θ 8 where Aristotle argued that the fact that eternal substances *are actually* supports the priority of actuality over potentiality. On my interpretation, the fact that such substances *are actually* makes it possible for them to be eternally, and this line of reasoning is I think what Aristotle also has in mind for the principles espoused by Anaxagoras and Empedocles. Of course,

¹¹² Here I am following the reading of the manuscripts, ὁ γὰο νοῦς ἐνεργεία, though both Ross and Jaeger print ὁ γὰο νοῦς ἐνέργεια. People want to alter the texts, here and elsewhere (cf. 1071b22), because they do not properly understand Aristotle's theory of non-correlative actuality. Hopefully my contribution will rectify this.

neither Anaxagoras nor Empedocles used Aristotle's concept of non-correlative actuality, nor did they rely on a theory of hylomorphism which accompanies it and out of which it grows; but they did believe that their first principles (at least the ones that are moving causes) were eternal principles, and for Aristotle, *being actually* is required for an eternal principle. So the fact that Anaxagoras and Empedocles saw the need for moving principles which are not subject to perishing testifies to the fact that actuality is prior, since, on Aristotle's view, it is only by something's *being actually* the substance that it is that will disqualify it from perishing.

So we have, then, a third passage in $\Lambda6$ which presupposes material from $\Theta8$, since it is only by incorporating the longer discussion of the more authoritative priority from $\Theta8$ that one can explain why Aristotle believes that actuality is prior to potentiality in $\Lambda6$. There is really only one clue that Aristotle gives us in $\Lambda6$ as to why actuality is prior to potentiality, and that is his remark that Anaxagoras' principle, Mind, *is actually*. And from $\Theta8$ we know that *being actually* makes eternal being possible, that perishable beings are ontologically dependent on the beings which *are actually*, and that certain changeable beings imitate imperishable beings. These are Aristotle's own reasons for maintaining that actuality is prior in the more authoritative way, and in $\Lambda6$ he takes Anaxagoras and Empedocles as having anticipated his first, and no doubt his second reasons, by positing primary moving principles which *are actually*. Thus his two predecessors also recognized, at some level at least, that actuality must be prior.¹¹³ Not

 113 As for the eternal motion of Leucippus, Aristotle does not specify whether he takes the eternal motion to be the motion of one or more eternal substances (as Aristotle himself requires), or whether he ascribes to

only, then, does $\Lambda6$ presuppose material from $\Theta8$, but the notion of priority Aristotle is using in $\Lambda 6$ when he claims that actuality is prior to potentiality is the same notion of priority he used for the final argument of Θ 8, i.e. the more authoritative kind of priority. The more authoritative kind of priority is a metaphysical kind of priority centering on the relation between the primary principles in a given metaphysical theory and the other entities that are in some way dependent on them. It is essentially a hierarchical notion of priority, whereas other notions of priority, like priority in time and in account, do not by themselves confer any hierarchical status on the prior items from a metaphysical point of view. Actuality is prior in this way because when Aristotle sets out to explain the substantial being of the primary principles (even those of Anaxagoras and Empedocles), that is, what it is about them that accounts for their being the substances that they are, it is the phenomenon of non-correlative actuality that does the bulk of the work. They simply are the substances they are without any outside reason for their being; and they cannot have an outside reason or cause precisely because they have no genetic matter that a causal principle could act upon. They cannot be made to come to be, and they cannot be made to perish.

Before finishing, I would like to make explicit here a further argument in defense of my interpretation of the more authoritative kind of priority in the previous chapter. It is already latent in what I have said above, but it must not get overlooked. The received view of the $\Theta8$ passage is that Aristotle is arguing that actuality is prior to potentiality in

Leucippus the weaker view that there simply always is motion in the world. Either way, he certainly thinks that the positing of eternal motion is on the right track, as his own view he then sketches shows (1072a9–a18).

ousia, in substance or in being, to the effect that actuality can be without potentiality but that potentiality cannot be without actuality. But this is an odd view to attribute to him given what he has said about the apparent (yet only apparent) priority of potentiality in $\Lambda 6$. Aristotle concludes here that, despite the fact that it looks like potentiality can be without actuality but not vice versa, the existence of non-correlative actuality entails that potentiality cannot in fact be prior; there are some actualities that are without potentiality. Yet in the case of *correlative* actuality, potentiality is still in fact prior, since potentiality can be without actuality but not vice versa. Yet the received view does not accommodate this fact. At best, Aristotle would be arguing in $\Theta 8$ that actuality is "in a way" prior to potentiality in *ousia*, but this is not how he proceeds (and that he could proceed in this way is evident from the way he does proceed in his treatment of priority in time). So I think it is best to rethink the received view of the more authoritative priority of actuality, since this does not seem to be Aristotle's view in $\Lambda 6$.

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The *aporia* has now been resolved, and the priority of actuality confirmed. All that is needed is some reassurance that the world does in fact conform with the way Aristotle's resolution would have it. So having cited examples of "eternal actuality" that other philosophers have posited, Aristotle now offers an outline of his own view. His commitment to the priority of actuality requires that "the same things are eternally, either by means of a cycle or in some other way, since actuality is prior to potentiality," and he himself opts for a cyclical theory of the eternality of the world.

If, then, the same is eternally by means of a cycle, something must always remain, acting in the same way. And if there is to be generation and destruction, there must be something else which is always acting in different ways. This must, then, act in one way in virtue of itself, and in another in virtue of something else—either of a third agent, therefore, or of the first. But it must be in virtue of the first. For otherwise this again causes the motion both of the third agent and of the second. Therefore it is better to say the first. For it was the cause of the always-in-the-same-way; and something else is the cause of variety, and evidently both together are the cause of eternal variety. This, accordingly, is the character which the motions actually exhibit. (Why then is there a need to seek other principles?) And since things admit of being in this way [i.e., where the first principles are eternally active], and if they did not, [the world] would have proceeded out of night and 'all things together' and out of non-being, these difficulties may be taken as solved. (1072a9–21, *Revised Oxford Translation*, modified) 114

It is important to be mindful of the structure of this argument. Since actuality is prior to potentiality, it follows that "the same things are eternally, either by means of a cycle or in some other way." And if the same things are eternally by means of a cycle (as Aristotle believes), and if there is generation and destruction (as he also believes), then a host of abstract and very important characterizations about the structure of reality follow. Clearly, the priority of actuality holds a supreme position within his metaphysical theory. Aristotle could have gone on to ask, we might imagine, what else must be the case if there is to be generation and destruction, and he might have given an answer that appeals to phenomena like form or essence, and matter. Aristotelian essences then are not as high up in his theory as is the priority of actuality; and even though he thinks of essence and form as actuality, still, they are not evidently the primary examples of actuality. Perhaps it comes out more explicitly here than it does anywhere else in the corpus why the

¹¹⁴ The last sentence is usually printed as the first sentence of Λ 7 (including in the *ROT*). I follow André Laks, "*Metaphysics* Λ 7," in *Aristotle's* Metaphysics *Lamda: Symposium Aristotelicum*, eds. M. Frede and D. Charles (Oxford, 2000), 213–14, and put it at the end of Λ 6. The chapter break here is of course not Aristotle's and could be dispensed with entirely.

priority of actuality is such an important component of his metaphysical theory. It is this commitment which lays the theoretical foundation for deducing those aspects of the world that are the most fundamental, namely, because they are eternal and because the other aspects or features of the world are ultimately dependent on them. It is not controversial that Aristotle has the first heaven and the sun in mind when he concludes that the two eternally active things (each is called *ti*) "together are the cause of eternal variety," but it is important to note that his argument does not itself commit him to this identification. It is from the top down as it were, beginning from the priority of actuality and deducing requirements that the world must accordingly satisfy; not from the bottom up as it is, for example, in *On Generation and Corruption* II.10 and in *Physics* VIII. That Aristotle can independently deduce the general structure of the world from his metaphysical commitments, and in particular his theory of non-correlative actuality and his commitment to the priority of actuality, is one of the climaxes of his inquiry into first philosophy.

Importantly, we should note, while it is true that the discussion of the priority of actuality has taken place within the context of Aristotle's argument for the existence of an eternal, unmovable substance (which he later calls 'God'), nothing he has said in this discussion requires the positing of such an imperceptible substance. The translated text from the previous paragraph does not make reference to any imperceptible substances. This is reminiscent of Θ 8, where Aristotle's argument for the priority of actuality in the more authoritative way (which, as I argued above, is the same kind of priority in Λ 6), contrasts the perishable substances with the eternal substances subject to change in some

respects (such as change of place), i.e. the *sensible* eternal substances, not his unmoved movers. So, importantly, Aristotle's theory of non-correlative actuality and his commitment to the metaphysical priority of actuality (priority in the more authoritative way) are not dependent on his theory of imperceptible, unmoved movers (the so-called "pure actualities"). In fact, Aristotle brings these components of his metaphysics to his treatment of imperceptible substances in $\Lambda6-10$, and he there *uses* them in his discussion of these substances, just as he *uses* material from *Physics* VIII. His theory of God is ultimately separate from his theory of non-correlative actuality, and he uses the latter as a basis for making progress with the former.

So, even though it was his remarks about certain qualifications that the primary movers must satisfy that triggered the *aporia* and the discussion of the priority of actuality in Λ 6, nothing in that discussion requires Aristotle's commitment to the existence of these movers (whose existence, unlike the existence of the eternal sensible substances and their motions, is very controversial). Rather, he brings along his theory of non-correlative actuality and his commitment to the priority of actuality (as laid out in Θ 8), and uses this pre-existing material in his argument for the imperceptible, unmovable substances of Λ . This is how Λ 6 is properly interpreted, and a close reading (and one which preserves the important dative form, $\dot{\epsilon}$ v ϵ p γ e $\dot{\epsilon}$ q, of the manuscripts) shows that Θ 8 does indeed lay the foundations for the discussion here as I have claimed.

Before moving on to Λ 7, it needs to be stressed that on my interpretation there is no room for the traditional notion of "pure actuality" in Λ 6. Yet this is the very chapter

where Aristotle is traditionally supposed to have defended this notion. 115 The passage where Aristotle is alleged to have argued for the characterization of the unmoved mover as a "pure actuality," namely 1071b12–22, has not been properly understood. The reason is that Aristotle's theory of non-correlative actuality has not been properly understood, and as a result when Aristotle applies his theory of non-correlative actuality in Λ 6, people read him as introducing a new notion of actuality, "pure actuality," that applies exclusively to his class of separate, unmoved movers. But in fact he is taking a preexisting notion of actuality, namely non-correlative actuality, a notion which applies to eternal sensible substances and their motions (as set out in Θ 8), and he uses this notion to set out some of the conditions that the separate, non-sensible substances must satisfy. The moving principle of the eternal circular motion must be such that its moving is not the exercise of any underlying potentiality ("there must be a principle of this sort of which the substance is actuality" Λ6 1071b19–20), just as the motions of the sun and stars are not the exercise of any underlying potentiality ("the substance which is matter and potentiality, not actuality, is the cause [of the laboriousness of motions for perishable things]" Θ 8 1050b27–28). Furthermore, these substances which, as principles, cause motion in Λ 6, must themselves be actually, since they are eternal substances ("they are, then, actually" A6 1071b22), just as any eternal substance must be actually and have no genetic matter ("they all, then, are actually" $\Theta 8$ 1050b18). No notion of "pure actuality" is needed to explain what Aristotle is doing in A6, which may go some way to

¹¹⁵ As we saw above from Berti's article, "Unmoved mover(s)." Laks, "Metaphysics Λ 7," 215, claims that "the notion of pure actuality ... constitutes the conceptual nerve of Λ 6."

reconciling those who are inclined to balk at its seemingly *ad hoc* introduction here. It remains to be seen, then, whether $\Lambda 7$ requires the traditional notion, or whether talk of "pure actuality," and perhaps "hyper-actuality," should be dismissed as a misinterpretation of Aristotle borrowed from the theory of Aquinas. That will be one of the questions we address in the next chapter.

Chapter 6: Actuality in Λ 7

The transition into $\Lambda7$ picks up the original argument of $\Lambda6$ after the long *aporia* on the priority of actuality has been resolved. Again, Aristotle began $\Lambda6$ by stating that there must be an eternal, immovable substance. The progress he makes towards establishing the existence of such a substance in $\Lambda6$, as related in the last chapter, is quite different from what the traditional interpretation says. That interpretation holds that the conceptual foundation of $\Lambda6$ is "pure actuality," and that Aristotle is concerned with showing that the eternal mover is a pure actuality. A pure actuality, I take it, is something that has no matter in any respect, i.e. for any category of being, and so is *ipso facto* not subject to change of any kind. Such a being would then, by virtue of being a pure actuality, be immovable, and so on the traditional reading Aristotle would have already established in $\Lambda6$ that the eternal mover is unmoved. However, this does not appear to be the case; $\Lambda7$ proceeds as if the immobility of the eternal mover has not yet been proven. Thus, there is further evidence against the idea that "pure actuality" is what is at issue in $\Lambda6$.

On my reading, what Aristotle has said about the eternal mover so far is consistent with the mover's having matter, and its being subject to change (i.e. movable). Of course he does not believe either property is true of his mover, but his argument has yet to establish this. Aristotle argues in $\Lambda 6$ for the existence of an eternal mover given the existence of an eternal motion (i.e. a circular local motion, which is the only motion continuous in the way time is), but there are a number of things that could satisfy the criteria of the mover he has given so far. For example, the eternal local motion of an

eternal substance could be caused by another eternal substance that *also* experiences eternal local motion. Towards the end of $\Lambda 6$ this is what he implies about the sun's diurnal motion, i.e. that this is a motion it has *kat' allo*, "in virtue of another," where the other is not an unmoved substance but one which is eternally in motion (the first heaven). If the mover were itself in eternal motion, then so long as it is an eternal substance it would *be actually* and hence satisfy the criterion at 1071b22 ("they are then actually"); and so long as its power to move were not the exercise of any potentiality, its substance would be actuality, and so it would satisfy the criterion at 1071b20 ("its substance must be actuality"). Yet the satisfaction of these two criteria is consistent with something's nevertheless being movable. So we would expect Aristotle to take the argument in a new direction if he is to establish that the moving principle is itself unmoved. And this is precisely what he does.

One way in which the argument moves in a new direction is by the explicit mentioning of the first heaven early on in $\Lambda7$ —Aristotle is no longer arguing *a priori* as he had been in $\Lambda6$. Aristotle there argued, by appealing to the priority of actuality, for the existence of two eternally active moving principles, one to account for the eternal cyclicism of the world, the other to account for generation and corruption. The first is "the cause of the always-in-the-same-way," and the second is "the cause of variety, and evidently both together are the cause of eternal variety." He then notes, "This, accordingly, is the character which the motions actually exhibit." The exhibitors of these two motions are of course the first heaven and the sun, which is not controversial. Aristotle now, in $\Lambda7$, proceeds to build upon his *a priori* foundation.

There is in fact something which is eternally moved in a ceaseless motion, and this motion is motion in a circle; and this is clear not only in theory but in fact, so that the first heaven would be eternal. There is accordingly something which moves it. And since that which both moves and is moved is an intermediate, there is something which moves without being moved, being eternal and substance and actuality. And it moves like that which is an object of desire and that which is an object of thought—they move without being moved. (1072a21–27)

It is important that Aristotle focus on the *first* heaven once he resumes his argument for the eternal unmoved substance, since there are no moving substances, or spheres, that could be responsible for the motion of the first heaven (which is why it is *first*). Aristotle's remark that there is something in ceaseless circular motion "is clear not only in theory but in fact" shows he is now moving away from purely a priori reasoning. On my reading, the text quoted above contains the first passage where Aristotle argues that the moving principle must itself be unmoved. Yet the argument he gives here, namely that it cannot be a mere intermediate mover, is far from giving him the kind of conclusion he is ultimately after. This is because there are many unmoved movers of this sort, not only the mover of the first heaven. 116 A hand moving a stick is an intermediate mover, but if the person is moving the stick out of desire for some object, that object is an unmoved mover. That is, in the context of the motion at issue, the object the person is after is an unmoved mover. This does not mean, of course, that this object is generally unmoved, only that it is unmoved in a particular case. But Aristotle of course wants a much stronger characterization of the unmoved status of the mover of the first heaven; he wants it to be *generally* unmoved, i.e. immovable without any qualification to contexts of change. So we would expect him to say more to support its immobility, which is precisely what he does later on. At this point, Aristotle can be understood to have given

¹¹⁶ For discussion, see *Physics* VII.5, which is clearly presupposed here.

this short argument for a qualified kind of immobility because he first wants to focus on the *way* the mover moves before proceeding further. And the way the mover moves is like an object of desire or thought, which he takes to be a common phenomenon, and hence the simpler argument. The more powerful argument for, and characterization of, the mover's immobility is yet to come.

Before turning to this material, however, we need to ask whether Aristotle's description of the mover as "eternal and [a] substance and [an] actuality" gives any support for the traditional view of "pure actuality." What does Aristotle mean here when he says the mover is [an] actuality? It is very hard to see what he has in mind just from studying this usage alone. Fortunately he uses this term "actuality" (*energeia*) several lines later, and this second usage will help us address our question about its use here (for which, see below).

Now, I pass over the discussion of desire and thought and pick up where Aristotle resumes his discussion of the moving principle's immobility.¹¹⁷

Now then, if something is moved, it admits of being otherwise, so that the primary local motion is in fact an actuality of it *qua* thing that is moved; but in *this* way it admits of being otherwise, in place, even if not in substance. And since there is something moving it which is itself immovable, being actually, this thing does not admit of being otherwise in any way whatsoever. For local motion is primary among the changes, and primary among this is motion in a circle; and it is this [motion in a circle] that this [mover] moves. Its being then is out of necessity; and in so far as it is necessarily, it is good, and in this way a principle. For the necessary is used in these ways: that which [is necessary] by force because contrary to impulse, that without which the good is impossible, and that which does not admit of being otherwise but [is necessary] without qualification. (1072b4–13)

 $^{^{117}}$ The words that do the resuming, εἰ μὲν οὖν of 1072b4, pick up the line of argument that was interrupted by the discussion of desire and thought. Laks, "*Metaphysics A 7*," 227, notes this as well, and cites Denniston, *Greek Particles*, 470.

This first sentence varies significantly from what both Ross and Jaeger print (and they vary significantly amongst themselves). The first part of it, "Now then, if something is moved, it admits of being otherwise," is unproblematic, 118 but the rest of it requires commentary. Here is the Greek text as I translated it:

εί μὲν οὖν τι κινεῖται, ἐνδέχεται ἄλλως ἔχειν, ὥσθ' ἡ φορὰ ἡ πρώτη καὶ ἐνέργειά ἐστιν ἧ κινεῖται· ταύτη δὲ ἐνδέχεται ἄλλως ἔχειν, κατὰ τόπον, καὶ εἰ μὴ κατ' οὐσίαν. 119

Given what has preceded this passage, and what is about to follow it, there does not seem to be any question that what Aristotle has in mind by "if something is moved" is the first heaven. *Prima facie* it would seem that if something is moved, then it admits of being otherwise in the very respect in which it is moved; in this case, the thing's local motion. And this is of course *generally* true from what we know about motion (*kinēsis*) from the *Physics*; when things move or change, their moving or changing was preceded by a state of rest, and will be followed by a state of rest, i.e. a state of "being otherwise." But in *Lambda* we are dealing with non-correlative *kinēsis*, motion that is not the exercise of any underlying capacity. Thus, contrary to what one might initially think, "the primary local motion is in fact an actuality of it [i.e. of the first heaven] *qua* thing that is moved;" that is to say, in so far as the heaven is moved in circular local motion it does not admit of being otherwise—its motion is a non-correlative actuality and so the thing in motion does not admit of not being in motion. Rather, "in *this* way it admits of being otherwise, in

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 $^{^{118}}$ Reading εἰ μὲν οὖν τι κινεῖται, ἐνδέχεται ἄλλως ἔχειν without καί before ἄλλως, following EJ and Jaeger.

¹¹⁹ I spent several hours reconstructing this text only later to discover that Laks, 228–30, decides on the very same (though he does not explain the meaning well). This is good evidence, I take it, that our text is preferable to Ross and Jaeger. More importantly, though, is that this was the reading of the best manuscripts, EJ, *ante correctionem*.

place, even if not in substance;" that is to say, while strictly speaking the heaven does not admit of being otherwise with respect to motion, as a consequence of its moving it does change in place, and so it is in respect of place that it can be and not be.

This state of affairs pertaining to the heaven is then immediately contrasted with another: "And since there is something moving which is itself immovable, being actually, this thing does not admit of being otherwise in any way whatsoever [including place]." What does Aristotle mean by "being actually" here as applied to the mover? On my reading, it is the very same thing he meant when he just said of the moved thing that, while it does admit of being otherwise in place, it does not so in substance ("in this way it admits of being otherwise, in place, even if not in substance (kat' ousian")). That being actually in the context of non-correlative actuality, and not admitting of being otherwise with respect to substantial being, are the same phenomenon for Aristotle, was established in Θ 8. On my interpretation then, both the first heaven and its mover are actually, and this is explicit here in Λ 7 at 1072b7–8. This was also the point made about the mover at Λ6 1071b20–22 (for discussion of which, see the previous chapter). The fact that both the mover and the moved (i.e. the first heaven, and in fact any eternal substance) are actually and, importantly, there does not seem to be any difference between the two cases of being actually (one is not superior to the other)—this fact discredits the received notion that Aristotle has a special notion of 'pure actuality' applicable only to the unmoved mover. Rather, Aristotle has a theory of non-correlative, non-composite substantial being applicable to all eternal substances and he is using this theory in $\Lambda6-7$ in his treatment of non-sensible eternal substances. No new notion of actuality is needed to explain these substances.

Returning now to the unanswered question from above regarding Aristotle's calling the mover "eternal and [a] substance and [an] actuality (energeia)" at line 1072a25: what does he mean here when he says the mover is "[an] actuality?" Since we have now discussed one later use of *energeia* in the chapter, namely, at 1072b5 where he says "the primary local motion is in fact an actuality of it *qua* thing that is moved," we are in a better position to answer the question. When Aristotle says that the local motion of the heaven is in fact an actuality, he means it is a non-correlative actuality: energeia here simply means non-correlative actuality. (If the energeia of the heaven were correlative, then the heaven would admit of not moving and its moving would be the exercise of a dunamis.) So, it is quite possible that when Aristotle used energeia to describe the unmoved mover at 1072a25, he simply meant by it non-correlative actuality and not pure actuality. This would then be an abbreviated form of one of the two important conclusions drawn about the mover back at 1071b12-22 (discussed in the previous chapter). Alternatively, energeia here at the beginning of Λ 7 could be an indicator of the discussion that is to come later on (at 1072b13-30, discussed below) where *energeia* is used frequently; if so, we will have to wait to see whether the notion of 'pure actuality' is required by this later passage (it will turn out that it is not). In any case, whatever Aristotle may have meant by energeia at 1072a25, it is virtually

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¹²⁰ I put "an" in brackets merely because "an actuality" is one possible translation of *energeia* here; in fact it is the one I prefer, but that I think is beside the point.

impossible for us to know for sure in this particular instance; the important point is that there is no good reason to insist that he meant by it 'pure actuality' since alternatives are quite plausible. The evidence for Aristotle's alleged notion of 'pure actuality' needs to be stronger than just this one usage of the word *energeia*.

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It is worth now recapitulating where we are in our treatment of $\Lambda 6$ and 7. What I have been particularly emphasizing is that certain features of the non-sensible mover(s) discussed in these chapters, traditionally thought to be uniquely applicable to separate, non-sensible substances, are not in fact uniquely applicable but hold of all eternal substances. The substance of the moving principle is actuality (1071b20), just as the substance of the sun and stars and the whole heaven is actuality ($\Theta 8\ 1050b22-28$). The mover is a substance which is actually (1071b22, 1072b8), just as the heaven and in fact all eternal substances are actually (Θ 8 1050b18). Furthermore, the unmoved mover moves without being moved (1072a26-7), as do many other things as well (this I take it is not controversial). So, nothing Aristotle has established about the unmoved mover(s) so far is uniquely characteristic of it (them), but applies to other substances as well. It is not until 1072b7 and following that we get a discussion of attributes of the unmoved mover that are true only of it (and of other celestial unmoved movers). The first is that the unmoved mover is not subject to being otherwise in any respect—it is by necessity without qualification. Let us now return to this discussion

Now then, if something is moved, it admits of being otherwise, so that the primary local motion is in fact an actuality of it *qua* thing that is moved; but in *this* way it admits of being otherwise, in place, even if not in substance. And

since there is something moving it which is itself immovable, being actually, this thing does not admit of being otherwise in any way whatsoever. For local motion is primary among the changes, and primary among this is motion in a circle; and it is this [motion in a circle] that this [mover] moves. Its being then is out of necessity; and in so far as it is necessarily, it is good, and in this way a principle. For the necessary is used in these ways: that which [is necessary] by force because it is contrary to impulse, that without which the good is impossible, and that which does not admit of being otherwise but [is necessary] without qualification. (1072b4–13)

There is an important implicit premise in this argument: if something is the cause of one of the primary motions in the world (circular, eternal local motion), either it itself undergoes this same kind of motion or it is outside the realm of motion and change and accordingly not subject to being otherwise in any respect. Aristotle need not appeal, for example, to an unmoved mover to cite a cause of the sun's diurnal motion (the motion it has in virtue of something else (kat' allo)), since the motion of the first heaven can be cited as its cause (1072a13–15). In the case of the *first* heaven, however, something other than a heaven, i.e. something not moving in circular, eternal local motion, must cause its motion; and since the motion of the first heaven is the primary form of motion, if its mover has any motion, the motion it has will be prior to the primary motion, which is impossible. Therefore, relying on the theory of the priority of local motion developed in Physics VIII, Aristotle concludes of the unmoved mover: "Its being then is out of necessity; and in so far as it is necessarily, it is good, and in this way a principle." It is not until here, on my interpretation, that Aristotle offers any characterization of nonsensible eternal substances that are unique to these substances. He then clarifies a few lines later his notion of necessity, noting that the relevant kind of necessity applies to

"that which does not admit of being otherwise but [is necessary] without qualification (haplôs)."121

While Aristotle holds that all eternal beings exist by necessity, he seems to have reserved a special kind of necessity for beings which are not only eternal but do not admit of any change whatsoever. In $\Lambda 7$ itself he notes that primary among substance (*ousia*) is substance which is simple and by actuality ($\dot{\eta}$ $\dot{\alpha}\pi\lambda\tilde{\eta}$ $\kappa\alpha\tilde{\iota}$ $\kappa\alpha\tau$ ' $\dot{\epsilon}\nu\dot{\epsilon}\rho\gamma\epsilon\iota\alpha\nu$ 1072a32), which presumably includes the unmoved movers and perhaps substantial essences as well (the latter need not concern us now). In $\Delta 5$ he says this about necessity as applied to the simples:

What is primarily (prôton) and more authoritatively (kuriôs) necessary is what is simple (haploun); for this does not admit of being in more than one way ($pleonachôs\ echein$), so that it also is not different at different times; for [if it were] it would then be in more than one way. If then there are certain eternal and immovable things, nothing is for them by force or contrary to nature. ($Meta.\ \Delta5$ 1015b11-15)

That Aristotle has a special notion of necessity reserved for the unmoved mover, a notion not applicable to the first heaven, is further evidenced by what he says in Λ 7 immediately after he says what kind of necessity the unmoved mover has: "On such a principle then depend the heaven and nature" (1072b13–14). The heaven is certainly necessary on his view, as are certain aspects of nature (like generation and corruption), but they are not necessary in the way the unmoved mover is. Rather, their necessity is derivative, an instance of what Aristotle also says in Δ 5: "Some things have their necessity by something else as cause, but others do not; it is through these latter that the former are out

¹²¹ Aristotle recapitulaes part of the main idea at the end of the chapter, writing that the unmoved mover must be impassive (ἀπαθές) and unalterable (ἀναλλοίωτον) beause it is prior to the primary motion in the universe: πᾶσαι γὰο αἱ ἄλλαι μινήσεις ὕστεραι τῆς ματὰ τόπον (1073a12).

of necessity" (1015b9–11). It is because the unmoved mover is out of necessity in the primary, unqualified way that makes it an $arch\bar{e}$ of a special kind: "in so far as it is necessarily, it is good $(kal\hat{o}s)$, and in this way a principle $(hout\hat{o}s\ arch\bar{e})$." Presumably the heaven, while it too is a principle, is not a principle in the way mentioned here. 122

Now what is of particular interest to me is *the way* Aristotle argued for this special necessity of the unmoved mover. Again, the argument presupposes material from *Physics* VIII regarding the priority of local motion. This is reminiscent of his using the priority of actuality in $\Lambda 6$ to deduce the general structure of reality and the eternal actualities that govern this structure, namely, certain eternal motions. It is becoming apparent why theories of priority are so important for Aristotle's metaphysics: with such theories in hand he can undertake his investigation into non-sensible, separate substances and thereby complete his first philosophy. And since his theory of non-correlative actuality is central to both kinds of priority, this too is an essential prerequisite for his final metaphysical analysis. However, it would take us too far away from the argument of $\Lambda 6$ –7 to discuss this now, so in the final chapter we will come back to it.

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In the remainder of Λ 7, Aristotle has finished his arguments for the existence of the unmoved mover, and now proceeds to further describe the nature of this separate, non-sensible substance. He tells us the way of life $(diag\hat{o}g\bar{e})$ of this substance is the best sort we humans enjoy (1072b14–15); we, however, enjoy it for only a short time, while

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¹²² Recall too the passage in Θ8 where Aristotle says of things which are by necessity without qualification: "and yet these are primary; for if they were not, nothing would be" (1050b18–19). For discussion of this passage, see my earlier chapter 4.

the unmoved mover enjoys it always. Aristotle tells us that pleasure (hēdonē) is the actuality (energeia) of this way of life. 123 There is then a discussion on thought thinking itself, and then a further characterization of the unmoved mover, now called 'God', as living an eternal life of the highest form of thinking (b24–30). Aristotle does use here the important term energeia in this discussion several times, writing, for example, "the actuality of thought is life, and this actuality is God" (b26–27).¹²⁴ One may perhaps interpret Aristotle here as utilizing a notion of 'pure actuality' in his specification of the nature of the actuality that God is, but I do not see why this is necessary. Many things are said to be actualities on Aristotle's system which are not God, including eternal actualities, and nothing about this passage demands a special notion of actuality reserved for God alone. Now there are of course characteristics of God in Λ 7 that are uniquely applicable to him, but none of these involve a special notion of actuality reserved only for God. What supremely characterizes the Godhead is the fact that it is prior to the first motion in the world, namely, the motion of the first heaven; hence, God must not only be necessary but necessary without qualification (b13). In this way God is a principle on which the heaven and nature depend (b11 and b13-14). Furthermore, the Godhead is characterized by being alive eternally, and living the best kind of life possible (b28–30). These are the ways Aristotle understands the supremacy of the divine substance separate

^{123 1072}b16. The correct text I believe is ἐπεὶ καὶ ἡ ἡδονὴ ἐνέργεια τούτου. τούτου connects back with οὕτω of the previous line; it does not refer to the unmoved mover as the *Revised Oxford Translation* and Laks, 231–2, would have it.

¹²⁴ So understood in the *ROT*. If Laks is right (and I think he is) on 236–7, Aristotle does not say here that God is an actuality but rather that *nous* is. Aristotle does not then call God an *energeia* in this passage.

from sensible things; not, however, as instantiating a special notion of actuality that only it enjoys.

Now, I do allow that there can be such a thing as pure actuality insofar as it *falls* out of Aristotle's argument for, and characerization of, the non-sensible, separate substances. If there is such a thing as pure actuality, it is merely a consequence of other things he says that do not presuppose it. My central contention is that this is not a concept that Aristotle uses or requires for his argument in $\Lambda6-7$. It would follow from pure acutality so construed, however, that the eternal sensible substances are almost as pure as their non-sensible movers, but not quite (since they have topical matter). And I do not think there is much significance for such a scalar concept here.

With that said, I want now to discuss how $\Lambda 7$ does in fact relate to one of the central contentions of $\Lambda 6$, namely, that the substance of the moving principle must be actuality and not potentiality (1071b18–20). The mover causes motion not by exercising any capacity or potentiality; rather, it is somehow simply part of the very nature of this mover that it cause motion. And $\Lambda 7$ tells us how. The moving principle causes motion by being an object of desire and thought, and it is so because of the kind of life it lives. The substantial being and the kinetic being of this substance turn out to be the same. As a substance, God is an eternal living thing, living the highest form of life; and as such, God causes motion in the first heaven, presumably because his superiority moves the heaven in the way an object of thought or desire moves something (i.e. as the traditional interpretation would have it, where God is emulated and conceived of as a final cause). Thus there is nothing over and above God's being the substance he is that is required for

him to be a principle of motion; his substantial being is sufficient and no *dunamis* is required. In the contrasting, more ordinary kinds of cases, a thing causes motion or change in another thing by exercising a power or potentiality (*dunamis*) that it has; by having a *dunamis*, the possessor of the *dunamis* is such that it both can and cannot cause motion, can and cannot move, and hence cannot cause movement eternally. The sun, stars, and the heaven move not because they have a *dunamis* for moving, for then the continuity of their motions would be laborious and they would have to stop (Θ 8 1050b22–28); rather, their moving is owing to the substance which is actuality, not potentiality, and hence it is part of the very substance they are that they be in motion (they do not *underlie* their motions). Similarly, the unmoved mover causes motion in virtue of being the substance that it is, an eternally thinking intellect whose thought is of the highest form possible; this is how Aristotle satisfies his important requirement set out in Δ 6 that the substance of the moving principle (*archē*) be actuality and not potentiality.

Chapter 7: Actuality and First Philosophy

The discussions comprising Book Z of the *Metaphysics* are some of the most notoriously difficult in the entire corpus. But these discussions, Aristotle tells us, are meant to serve a preliminary role in his first philosophy. He writes in Z11:

Whether there is, apart from the matter of such substances [like Socrates and Coriscus], any other substance [i.e. other than form], and one should look for some substance other than these [i.e. matter and form], e.g. numbers or something of the sort, must be considered later. For it is for the sake of this that we are trying to determine the nature of perceptible substances, since in a sense the inquiry about perceptible substances is the work of natural science, i.e. of second philosophy. (1037a10–16, *Revised Oxford Translation*)

Perceptible substances are the province of natural science or second philosophy, not of first philosophy. But an inquiry into the first causes and principles of all things, i.e. an undertaking of first philosophy, does in fact rely on a certain kind of inquiry into perceptible substances. In particular, Aristotle wants to get clear about the status of form as primary substance; he wants to understand the substantial forms of living perceptible substances *qua* beings. Almost all of Z is concerned with this undertaking. But the inquiry into substantial form was clearly intended as a prelude to the proper objects of first philosophy, as the last chapter of Z reminds us: "We should say what, and what sort of thing, substance is, taking another starting-point; for perhaps from this we shall get a clear view also of that substance which exists apart from sensible substances" (1041a6–9, *ROT*). Book Z is meant to be an important part of the journey that culminates with a positive theory of the substances which exist apart from sensible substances.

We do not find any discussion of the substances separate from sensible substances in the other two books that were meant to directly succeed Z. H and Θ both continue to

prepare the way for Aristotle's treatment of certain outstanding questions regarding the existence and nature of the separate, non-sensible substances. Book H takes the phenomena of matter and form discussed in Z and subsumes them under the broader concepts of potentiality and actuality, respectively. Book Θ then undertakes a discussion of potentiality and actuality as such, which further prepares the way for an account of the separate, non-sensible substances.

Now unfortunately we do not have the exact treatment of this special class of substances that Aristotle envisioned while composing ZH Θ . What we have are his critique of the Platonic version of first philosophy in Books MN, and his own positive account of these separate substances in Book Λ . But Λ is a separate treatise, as is well known, not a continuation of ZH Θ . But since the subject matter of the latter half of Λ is the very subject matter that ZH Θ had promised, it is quite reasonable to see Λ as containing *the kind* of theory that ZH Θ were meant to be preliminary to. Now I do not wish to discuss all of the aspects in which ZH Θ prepare us for the positive theology of Λ , but instead focus on several of those aspects which are the most salient to the material we are concerned with here.¹²⁵

Aristotle tells us at the outset of Θ that he is going to discuss potentiality in the strictest sense ($\hat{\eta}$ λέγεται μὲν μάλιστα κυρίως 1045b35–6), but that this discussion or this

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¹²⁵ Myles Burnyeat, A Map of Metaphysics Zeta (Pittsburgh: Mathesis Publications, 2001), 127, takes a similar view of the relations between the books of the Metaphysics I have mentioned, and I am partially indebted to his account. He says, "Z1–16 is preliminary to Z17–H ... ZH make a unified treatise which expects Θ as its sequel, and ... ZHΘ form a 'two-volume' work designed to prepare the way for settling disputed questions about non-sensible substantial being in some anticipated version of MN and Λ. Z is one step in the middle of the long journey to God which began at the very beginning of the Metaphysics."

notion of potentiality is not "the most useful for what we want now." In fact, "potentiality and actuality extend more widely than those cases which are so called only in respect of change." The cases of potentiality and actuality that do *not* belong to change (*kinēsis*) are the cases most useful for what we want now. The question arises, what are these cases, and what is it that we want now that makes these cases useful?

In the context of change, it is *correlative* cases of actuality and potentiality that are relevant. Change is defined and explained in terms of the potential and the actual, and the before and after states of the thing changed. This is potentiality and actuality at play in the way familiar to us from common sense; things change all the time from a potential state into an actual state. Of course, the power or potentiality in the *agent* performing the change is Aristotle's notion of *dunamis* in the primary sense, and this kind of *dunamis* depends on their being passive *dunamis* that correlates with it and upon which it can operate.

Now potentiality and actuality extend more widely than the sphere of change—this is a central point—and this wider extension is what is most useful for first philosophy. I believe Aristotle was alluding here at the beginning of Θ to our primary concern ("what we want now") of arriving at an account of the separate, non-sensible substances. And it is a theory of *non-correlative* actuality and potentiality that will play a very important part in this anticipated account. That is, Aristotle will discuss actuality and potentiality as they are found in the sphere of change only to bring us to a further

¹²⁶ Makin, trans. οὐ μὴν χρησιμωτάτη γέ ἐστι πρὸς ὃ βουλόμεθα νῦν· ἐπὶ πλέον γάρ ἐστιν ἡ δύναμις καὶ ἡ ἐνέργεια τῶν μόνον λεγομένων κατὰ κίνησιν (1045b36–1046a2).

discussion of actuality and potentiality as they extend beyond the sphere of change. And the reason for doing this is because non-correlative actuality and potentiality are what we need to construct a theory of the kind of substances that first philosophy has as its primary object. On my reading of Θ , non-correlative potentiality and actuality are finally discussed in chapter 8 in the final argument for the priority of actuality, and this material anticipates the material of $\Lambda 6$ and is in fact presupposed by $\Lambda 6$. $\Lambda 6$ can only be properly understood, as I argued in chapter 5, by seeing it in the light of $\Theta 8$.

In $\Lambda6$ Aristotle argued that the substance of the moving principle must be actuality, not potentiality, and in $\Theta8$ he implied that the reason the heavenly bodies do not tire and cease from their motions is owing to the substance which is actuality, not potentiality as found among all sublunary motions. To inquire about the substance of a substance was first undertaken in Z and continued in H. At the end of Z Aristotle writes about primary substance that "it is the cause which makes *this* thing flesh and *that* a syllable." He continues:

And this is the substance of each thing; for this is the primary cause of its being; and since, while some things are not substances, as many as are substances are formed naturally and by nature, their substance would seem to be this nature, which is not an element but a principle. (1041b24–31, *ROT*)

The substance of a natural substance is the primary cause of its being, which cause is its form or nature. Matter is also a substance of a natural substance, but matter is not the primary substance, since matter is not the primary cause of a substance's being. In Book H Aristotle continues to talk about the substance(s) of natural substances, but now he reworks his conception of composites of form and matter into composites of potentiality and actuality. At the beginning of H2 he writes:

Since the substance which exists as substratum and as matter is generally recognized, and this is that which exists potentially, it remains for us to say what is the substance, in the sense of *actuality*, of sensible things. (1042b9–11, *ROT*)

The substance in the sense of actuality is form, the primary substance of Z17 and the primary cause of the being of a thing. It is also essence and soul according to Aristotle in H3 (1043a35, 1043b1-2). Part of what Book H does is to further characterize the substance in the sense of actuality of sensible things. We are told that it "must either be eternal or it must be destructible without being ever in course of being destroyed, and must have come to be without ever being in course of coming to be" (1043b14–16, ROT). The substance which is actuality never comes to be nor perishes; it is either eternal or simply pops into and out of existence without any generative or destructive process. Aristotle seems to hold that the individual form or soul of each living organism comes into and passes out of existence in this way, though there may be a further level of form at the species level that is eternal. (This is not the place to take up the disputed question about whether Aristotelian forms are particular or universal.) But the important point for my purposes is that this is the first time where the possibility for the *eternality* of the substance in the sense of actuality is mentioned. So far the only entities said to be actually are the causes of the being of perishable substances, substances which have matter as their secondary substance; but there are other entities as well that will be added to the class of substance which is actually. In Θ and in Λ , eternal sensible substances, their motions, and their immovable, non-sensible movers will be identified as yet further examples of entities which are actually. And these latter entities are more the proper objects of first philosophy. So we see how the inquiry begun in Z into the primary cause of the being of the substances that second philosophy studies, and the further characterization in H of their form as the substance which *is actually* (and matter as the substance which *is potentially*), helps lay the theoretical framework for an inquiry into the eternal substances which are the proper subject matter of first philosophy. Non-correlative actuality is already at play in Book H, but not yet applied to any eternal substance. Nor is their yet any explicit mentioning of the priority it enjoys. The priority of substantial form from Z1 onward, and the reworking of substantial form as actuality from H2 onward, helps prepare the way for the priority of actuality in Θ 8 and in Λ .

In the final chapter of H, Aristotle further characterizes the nature of *being actually*. He says about form and essence:

But of the things which have no matter, either for reason or for sense, each is by its nature essentially a kind of unity, as it is essentially a kind of being—a 'this', a quality, or a quantity. And so neither 'existent' nor 'one' is present in definitions, and an essence is by its very nature a kind of unity as it is a kind of being. This is why none of these has any reason outside of itself for being one, nor for being a kind of being; for each is by its nature a kind of being and a kind of unity. (1045a36–b4, *Revised Oxford Transation*)

This is a culminating characterization of the primary substance that has so far been studied (i.e. form, soul, or essence, or whatever it is that is the primary cause of the being of a natural substance). But it is a characterization that will be applicable to other primary substances as well. Recall the definition of a primary substance offered in Z11: "By a primary substance I mean one which does not imply the presence of something in something else, i.e. in a substrate which acts as matter" (1037b3–4, *ROT*). Like form and essence, heavenly bodies and their non-sensible movers are substances for which a substrate which acts as matter is absent. They either have no matter at all, or they have

topical matter only, and so are further examples of primary substances; and they do not have an external cause of their being, as do perishable substances. This characterization of the primary substance of ZH, quoted above, will be applicable to the further classes of primary substance discussed later on, and linking ZH with the material in $\Theta 8$ and Λ is the very concept of non-correlative actuality. Form is the substance which *is actually*, and unmoved movers and the heavenly bodies they move also *are actually*. All of these substances do not have any reasons or causes outside of themselves for being the substantial beings they are, but are simply primitive in the way that that the existence of the cosmos itself is primitive. Given that they are the primary members in Aristotle's hierarchical structure of reality, a theory of the priority of actuality will be an important component of his first philosophy.

Now the first application of his theory of non-correlative actuality occurs in the final chapter of H, shortly after the above characterization of matterless entities as essentially a kind of unity and being. I refer here to Aristotle's explanation of what makes a natural substance one—the problem of unity. His solution is this:

The proximate matter and the form are one and the same thing, the one potentially, the other actually. Therefore to ask the cause of their being one is like asking the cause of unity in general; for each thing is a unity, and the potential and the actual are somehow one. Therefore there is no other cause here unless there is something which caused the movement from potentiality into actuality. And all things which have *no* matter are *without qualification* essentially unities. (1045b17–23, *ROT*)

The proximate matter *is potentially* what the form *is actually*, and this relation solves the problem of how a natural substance is one thing. To say that the matter *is potentially* a man implies that it is not an actual man by its own nature but can be a man only in the

sense of being the matter of an actual composite man, i.e. by having the form embedded in it. To say that the form *is actually* [a] man implies that the form can never cease from being what it is; the form may pop out of existence, but it cannot undergo any change that will result in its not being the substance it is, a change that the matter can and must, at some point, undergo. These two, the matter and form, are "somehow one" so long as the composite substance remains alive, but the exact nature of this relationship need not concern us here.

A further passage will help make things clearer. In $\Theta 10$ Aristotle is discussing truth and falsity and how knowledge and error are possible, and about non-composite substances (τὰς μὴ συνθετὰς οὐσίας) he says it is impossible to be in error about them, but one either thinks them or does not. He writes:

And all [non-composite substances] are actually, not potentially, for otherwise they would come to be and pass away; but in fact *being itself* does not come to be nor pass away, for then it would come to be *out of* something. As many things then that are essences and are actually, ¹²⁷ about these it is not possible to be in error but one either thinks them or does not. (1051b28–32, my translation)

Things which are actually in the non-correlative sense neither come to be nor pass away. Things that come to be do so out of something, i.e. out of some matter, and hence could not be incomposite. Aristotle resorts to Platonic language here, emphatically asserting that being itself neither comes to be nor passes away, 128 since essences are by their very nature a kind of being and have no reason or cause outside of themselves for being the

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¹²⁷ Reading ἐνεργεία with the Mss. and Jaeger.

¹²⁸ νῦν δὲ τὸ ὂν αὐτὸ οὐ γίγνεται οὐδὲ φθείρεται (1051b29-30).

beings they are (as he says in H6, quoted above¹²⁹). They are primitive members of the Aristotelian ontology, and belong to the domain of being, not of becoming.

A house and its matter certainly do belong to the domain of becoming. Scholars sometimes explain Aristotle's claim that the matter of an actual house is a house potentially by saying that the matter in question can be the matter of a *different* house—the actual house it is the matter of can be disassembled and a new house can be built using the very same matter that belonged to the old one. This is what it means for the matter of an actual house to be a house potentially according to them.¹³⁰

Now on my view this interpretation is not entirely wrong, but it fails to capture the meaning of matter's being potentially in the way it should be interpreted. On my account, when Aristotle says that the matter of an actual house is a house potentially, what this means is that the matter can both be and not be a house; and what it means for matter to be a house is just for it to be the matter of an actual house, or to have the form of house embedded in it. The matter cannot be a house in its own right, as Aristotle says in Z3: "I mean by matter that which in its own right (*kath hautēn*) is neither a something, nor a particular quantity, nor any of the other ways we have distinguished being" (1029a20–21). Insofar as the bricks and boards, etc., are the matter of a house, the only way they can be a house is by being the matter of an actual composite house. But simultaneously this means that the matter cannot in its own right not be a house either; it

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 $^{^{129}}$ μαὶ τὸ τί ἦν εἶναι εὐθὺς ἕν τί ἐστιν ὥσπες μαὶ ὄν τι (1045b3-4).

¹³⁰ See Michael Frede, "Aristotle's Notion of Potentiality in *Metaphysics* Θ ," in *Unity, Identity, and Explanation in Aristotle's Metaphysics*, eds. T. Scaltsas *et al.* (Oxford, 1994), 192; and Witt, *Ways of Being*, 52.

can only not be a house by virtue of not being the matter of an actual house. The potential being the matter has (i.e. the only being it has *qua* matter) it gets only by standing in a relation to what it is the matter of; in its own right, the matter is nothing particular, as he says in Z3. Matter (as such) can never be anything actually. The bricks and boards are actual bricks and boards, but this is true of them insofar as they are bricks and boards and not insofar as they are the matter of something. It is the compound that goes from a state of being potentially to a state of being actually, but never the matter. It is the very nature of matter that it can both be and not be a house, and whether it is the matter of an actual house or not does not change this nature of the matter as such. The nature of matter as such is, in effect, non-correlative potentiality.

While it is mostly non-correlative actuality that is utilized in the *Metaphysics*, an important passage from *De Anima* illustrates Aristotle's application of the concept of non-correlative potentiality. This is the definition of soul he gives early on in the second book. He says there:

Of natural bodies, some have life and some do not; and it is self-nourishment, growth, and decay that we speak of as life. Hence, every natural body which partakes of life will be a substance, and substance of a composite kind. Since it is indeed a body of such a kind (for it is one having life), the soul will not be a body; for the body is not something predicated of a subject, but exists rather as subject and matter. The soul must, then, be substance *qua* form of a natural body which has life potentially. (412a13–21, trans. Hamlyn)

Every living composite natural substance has a body and a soul. Its body has life potentially, and its soul is the substance *qua* form predicated of the body having life potentially (which exists as "subject and matter"). To say that the body (i.e. the matter) has life potentially means, jointly, that (a) the body can be alive only in the sense that it

can be the body of a substance which is itself actually alive, and (b) the body can be not alive only in the sense that it is possible for it to not be the body of any living substance. The body itself (i.e. the matter as such) can never be actually alive or actually not alive. The matter must be such that it is always capable of being and not being, and the only status it has as a being is this capability or potentiality. It is never literally true of the composite organism itself that it does not have life, because the lifeless entity is a corpse and not an organism (just as a severed hand is only a hand homonymously). It is true only of the matter that it can be not alive; matter is the substance that can both be and not be F without ever being actually F. So the natural body *is potentially* alive. A substantial form or essence, on the other hand, *is actually*, which means it is not possible for it not to be; it may not be eternal, but, while it exists, it can never not be what it is.

To elaborate even more on the nature of non-correlative potentiality, let us contrast it with correlative potentiality. We say that the boy is potentially a man, and that the sleeping dog is potentially awake. Part of what is essential to these propositions is an implicit reference to the future; in the future, the boy will be a man (unless something terrible happens along the way), and in the future, the dog will be awake (unless it dies before waking). Correlative potentiality involves a reference to anticipated future states. Non-correlative potentiality does not. Non-correlative potentiality is all about the substantial being that matter *generally* has, regardless of whether it is the matter of an actual composite (and why should matter's being enformed at a particular time make a difference as to what material substance is *qua* being?). Matter is the potentiality to be and not be, since matter is and always remains potentiality and since every potentiality is

simultaneously a potentiality for the opposite; and this is meant to be a claim about the general condition of the matter (i.e. it is a gnomic claim), not a claim contrasting present and future conditions. Matter is somewhere in between being and non-being, since it is surely not nothing, yet matter as such is never an actual being. This way of thinking descends from Plato, who held that material particulars are somewhere in between being and non-being, and that in fact they are, always, in a state of becoming. Aristotelian matter is *not* to be understood as an instance of Platonic becoming, but the way that matter is what can both be and not be, but never escapes this status, is reminiscient of Plato's position that material things only become and never reach the status of being. It seems odd that particulars only become but never are, just as it seems odd that something can simultaneously be and not be but never be actual. But matter does not *have* the potentiality for being and not being; rather, the potentiality for being and not being is precisely what matter *is*.¹³¹

In a famous paper, J.L. Ackrill has challenged Aristotle's definition of *psuche* on the grounds that it is internally contradictory given his other commitments.¹³² In particular, given the homonymy principle (where, for example, a severed hand is not really a hand), the matter of a living organism is not capable of existing except as the matter of an actual, living organism. But it is supposed to be part of the very nature of material substance that it can exist without being the matter of something actual. Ackrill writes:

¹³¹ For more on the Platonic connection, see the final paragraph of chapter 4, where I mention how Aristotle had his own version of the compresence of opposites. See also my initial discussion of matter as non-correlative potentiality in the same chapter, pages 95–8.

^{132 &}quot;Aristotle's definitions of 'Psuche," Proceedings of the Aristotelian Society 73 (1972–3): 119–133.

The problem with Aristotle's application of the matter-form distinction to living things is that the body that is here the matter is itself 'already' necessarily living. For the body is this head, these arms, *etc.* (or this flesh, these bones, *etc.*), but there was no such thing as this head before birth and there will not be a head, properly speaking, after death. In short—and I am of course only summarising Aristotle—the material in this case is *not* capable of existing *except* as the material of an animal, as matter *so in-formed*. The body we are told to pick out as the material 'constituent' of the animal depends for its very identity on its being alive, in-formed by *psuche*. (125–6)

And so there appears to be a serious problem for Aristotle, since it looks like the matter of a living organism can exist only in its enformed state, i.e. enformed by *psuche*.

But Aristotle's theory does not fall victim to this criticism, and so it is not internally contradictory as Ackrill's analysis implies. Ackrill fails to abide by Aristotle's important claim that matter, as such, is never anything actual. In its own right matter is nothing definite, but is only something in relation to the substance it is the matter of. While it is true that the matter of a living animal is constituted by a head, arms, etc. (or by flesh, bones, etc.), yet this does make the matter as such an actual head and arms, etc. (or actual flesh and bones, etc.). The material substance that is the living animal potentially is not actually anything in its own right, even though it is indeed the collection of (nonhomonymous) organs which constitute the matter while the organism is alive. When it dies, the same material substance will now be constituted by homonymous organs (assuming there is not yet any decay), but likewise, the matter strictly speaking is not actually these homonymous organs (because matter as such is not actually anything). To say that the matter is constituted by non-homonymous organs at one point, and by homonymous organs at another point, is simply to elaborate on the difference between the enformed state of the matter and its unenformed state. Furthermore, if we are to understand matter as actually something, this something will itself be a compound of form and matter (e.g. a head); but material substance as such is not to be understood as a compound of form and matter but only as what can and cannot be the substance whose matter it is. Of course it is often very convenient to specify the proximate matter as something definite (as organs, for example, or bricks and boards), and Aristotle often does so. But it is more precise to understand such specifications as referring to what the matter is constituted from. Matter as such is never anything actually, and Ackrill's argument fails to appreciate this important characterization.

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Near the end of his treatise *On Generation and Corruption*, Aristotle discusses at length the causes of coming-to-be in general (as opposed to individual cases). He writes, "we must explain the *number* and the *nature* of the principles of all coming-to-be alike" (II.9 335a25–6, *ROT*). There must be a cause of the eternal alternations between generation and corruption, and the general cause of generation must be contrary to the general cause of corruption. It is well known that the sun and its motions do the bulk of the work. When Aristotle discusses these phenomena at the end of *On Generation and Corruption*, clearly he is doing so as a student of nature, or as a natural scientist—and not as a metaphysician or first philosopher. When he discusses these same phenomena again in *Metaphysics* Λ 6–7, things are markedly different. Now I wish to quote from the natural work at length in order to prepare for and emphasize certain aspects of the metaphysical discussion that are central to my argument. Here is what he says in the context of second philosophy:

Since the change which is motion has been proved to be eternal [in *Physics* VIII], the continuity of coming-to-be follows necessarily from what we have established; for the eternal motion, by causing the generator to approach and retire, will produce coming-to-be uninterruptedly ... [and] motion (not coming-to-be) [is] the primary form of change ...

We have assumed, and have proved, that coming-to-be and passing-away happen to things continuously; and we assert that motion causes coming-to-be. That being so, it is evident that, if the motion be single, *both* processes cannot occur since they are contrary to one another; for nature by the same cause, provided it remain in the same condition, always produces the same effect, so that either coming-to-be or passing-away will always result. The movements must be more than one, and they must be one another either by the sense of their motion or by its irregularity; for contrary effects demand contraries as their causes

This explains why it is not the primary motion that causes coming-to-be and passing-away, but the motion along the inclined circle; for this motion not only possesses the necessary continuity, but includes a duality of movements as well. For if coming-to-be and passing-away are always to be continuous, there must be some body always being moved (in order that these changes may not fail) and moved with a duality of movements (in order that both changes, not one only, may result). Now the continuity of this movement is caused by the motion of the whole; but the approaching and retreating of the moving body are caused by the inclination. For the consequence of the inclination is that the body becomes alternately remote and near; and since its distance is thus unequal, its movement will be irregular. Therefore, if it generates by approaching and by its proximity, it—this very same body—destroys by retreating and becoming remote; and if it generates by many successive approaches, it also destroys by many successive retirements. For contrary effects demand contraries as their causes; and the natural processes of passing-away and coming-to-be occupy equal periods of time. Hence, too, the times—i.e. the lives—of the several kinds of things have a number by which they are distinguished; for there is an order for all things, and every time (i.e. every life) is measured by a period. Not all of them, however, are measured by the same period, but some by a smaller and others by a greater one; for to some of them the period, which is their measure, is a year, while to some it is longer and to others shorter.

And there are facts of observation in manifest agreement with our theories. Thus we see that coming-to-be occurs as the sun approaches and decay as it retreats; and we see that the two processes occupy equal times. For the durations of the natural processes of passing-away and coming-to-be are equal [i.e. the six winter months for passing-away and the six summer months for coming-to-be]. (336a15–336b19, *Revised Oxford Transation*)

That local motion is the primary type of motion (and hence prior to coming-to-be), and that circular local motion is the primary local motion, are principles established in natural

philosophy. Furthermore, circular local motion is the only kind of motion that can be continuous and eternal. But what is the nature of eternal motion and the substantial being, or ousia, of the things that have it? What makes it possible for there to be things which are in fact eternally in motion? Questions of this sort natural philosophy does not attempt to answer. Second philosophy says nothing about eternal motion qua being, nor about the sun qua being, especially since the sun is not analyzable by means of the physicist's concepts of matter and form—it is not a hylomorphic compound, for then it would be perishable. This discussion quoted tells us a fair amount about the principles of coming-to-be and passing away at the general level, but it does not discuss them qua beings. Furthermore, the line of reasoning takes the following form: given that there is coming-to-be and passing away, what inferences can be drawn about the principles that cause them? In Λ , the line of reasoning is significantly different.

In Λ6, Aristotle devotes the bulk of the chapter to resolving a certain *aporia*, namely, that it looks as if potentiality is prior to actuality. But if potentiality is prior, "none of the things that are will be," so actuality must be prior.¹³³ And so there must be eternal actualities, as Plato and Leucippus recognized, together with Anaxagoras and Empedocles.¹³⁴ The theologians and certain natural philosophers were wrong, but Aristotle and others get it right. The conclusion is then: "So there was no Chaos or Night for an infinite time, but the same things are eternally, either by means of a cycle or in some other way, since actuality is prior to potentiality" (1072a7–9). The priority of

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^{133 1071}b25. For details, see chapter 5.

¹³⁴ There must be instances of *aei energeia*, which Plato and Leucippus were correct to posit: ποιοῦσιν ἀεὶ ἐνέργειαν 1071b32.

actuality allows you to infer something very significant to Aristotle's first philosophy, namely that "the same things are eternally." This is reminiscent of one of the central ideas of Θ 8, namely, that *being actually* makes eternal being possible, which in Θ 8 helps to explain why actuality is prior to potentiality in the more authoritative way (since eternal being is manifestly superior to finite being).

Now once Aristotle in $\Lambda6$ has drawn his important conclusion that since actuality is prior the same things are eternally, he immediately goes on to elaborate and make further inferences. Here is the key text, the one to be contrasted with the excerpt from On Generation and Corruption quoted above.

So there was no Chaos or Night for an infinite time, but the same things are eternally, either by means of a cycle or in some other way, since actuality is prior to potentiality. If, then, the same is eternally by means of a cycle, something must always remain, acting in the same way. And if there is to be generation and destruction, there must be something else which is always acting in different ways. This must, then, act in one way in virtue of itself, and in another in virtue of something else—either of a third agent, therefore, or of the first. But it must be in virtue of the first. For otherwise this again causes the motion both of the third agent and of the second. Therefore it is better to say the first. For it was the cause of the always-in-the-same-way; and something else is the cause of variety, and evidently both together are the cause of eternal variety. This, accordingly, is the character which the motions actually exhibit. Why then is there a need to seek other principles? (1072a7–18, Revised Oxford Translation, modified)

The priority of actuality allows for the inference that the same things are eternally *either* "by means of a cycle" *or* "in some other way." Aristotle does not explore any alternative to the same things' being eternally by means of a cycle, but it is important that the argument in *On Generation and Corruption* does not allow for such an alternative. In the context of natural philosophy, the idea is to explain the cycles in nature by arguing *towards* their causes and principles; in Λ Aristotle is clearly *starting* with the higher

principles and deducing the possibility of the cycles. That is one key difference between the two treatments. Now in Λ Aristotle elaborates on only the possibility of eternality by means of a cycle, presumably because that is the way the world in fact happens to be. But from the perspective of first philosophy, actuality can be prior and there need not be eternal cycles of heavenly movements and eternal cycles of generation and corruption. This point is surely connected with his position that God is the supreme principle of the cosmos and prior to all of the sensible world, and that all of the sensible world, both its eternal and perishable components, are ontologically dependent on this supreme principle. As he goes on to say in Λ 7 about the separate immovable mover of the first heaven, "On such a principle then depend the heaven and nature" (1072b13-14). So, we can further understand why God is the supreme principle when we realize that while the priority of actuality does imply eternality, it does not necessitate any form of cyclical eternality. Any cyclicism there is will, as a matter of fact, be dependent upon the supreme principle, whatever that principle happens to be. This is surely an important insight of his first philosophy.

Now the above passage from $\Lambda6$ describes part of the general hierarchical structure of reality, as does too the passage from *On Generation and Corruption*. It is uncontroversial, for example, that the first heaven is the thing which "always remains, acting in the same way," and that the sun is the "something else which is always acting in different ways." Both of their motions are eternally active or actual, i.e. they *are actually*, the Greek being here *aei energoun*. Furthermore, it is the sun's motion along the ecliptic (the inclined circle) which it has in virtue of itself, together with its diurnal

motion which it has in virtue of the first heaven, that together account for the periods of alternation between generation and corruption and the eternality of the alternations. Since Aristotle thinks he has deduced "the character which the motions actually exhibit," there is consequently no "need to seek other principles." This is indirectly an argument against the Platonic theory of primary principles, because Aristotle has shown that everything can be explained by his own principles and no others need be sought. Now, the key question: what are the principles (*archai*) he has sought out that have allowed him to deduce the primary motions and changes of the world, and therefore have removed the need to seek for other principles?

The answer to this key question of course comes from the texts themselves. Aristotle has fully utilized his theory of *non-correlative actuality* and his theory of *the priority of actuality* to arrive at this stage of the argument in his first philosophy. And this is no small accomplishment. It will immediately follow from this stage that the first heaven is eternal and that an eternal and immovable substance exists which moves it. The text continues:

And since things admit of being in this way [i.e., where the first principles are eternally active], and if they did not [the world] would have proceeded out of night and 'all things together' and out of non-being, these difficulties may be taken as solved. There is in fact something which is eternally moved in a ceaseless motion, and this motion is motion in a circle; and this is clear not only in theory but in fact, so that the first heaven would be eternal. There is accordingly something which moves it. And since that which both moves and is moved is an intermediate, there is something which moves without being moved, being eternal and substance and actuality. And it moves like that which is an object of desire and that which is an object of thought—they move without being moved. (1072a19–27)

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¹³⁵ My chapters 4–6, and parts of this one, are in effect an argument for this interpretation.

The first empirical input to the argument is the existence of the first heaven. It is presumably owing to the cycles we do in fact experience in our world that Aristotle did not elaborate on the possibility for things' being eternally in some way other than "by means of a cycle." All that was needed was to identify the salient candidate that satisfies the criteria he has laid out in $\Lambda 6$ for an eternal moving substance. And then it immediately follows that there is an unmoved mover that satisfies the further criteria put forth in the same chapter (primarily that the substance of the moving principle be actually, and that the principle itself *be actually* 1071b20–22). He then goes on in Λ to further characterize his supreme principle, discussing (among other things) the kind of life that this principle enjoys, and eventually, the nature of its thinking.

Metaphysics Z is preliminary to a science of the separate, non-sensible and eternal substances, as discussed above. But it is only in $\Lambda6$ –10 that we get a positive Aristotelian account of this special class of substances. So we can ask the question, what does Aristotle need to take on board in his first philosophy to get to his account of the separate substances, and which Z initially helps to lay the grounds for? Now my answer to this question centers on Aristotle's theory of the priority of actuality and his theory of non-correlative actuality—these two components of his first philosophy are what are needed to *proceed* to a positive account of the separate substances. He also needs some material from natural philosophy, namely, his theory that time and motion are eternal, and that

local motion is prior to all other forms of motion (including coming-to-be), and that it is only circular local motion that can be continuous and hence eternal.¹³⁶

It is in $\Theta 8$ that we are first given a theory of the *priority of actuality*. There Aristotle argues that actuality is prior to potentiality in account, in time, in substance, and in a fourth, more authoritative way—the way actuality is also understood to be prior in $\Lambda 6$. Now that actuality is prior in the first three ways helps prepare for the priority of actuality in the more authoritative way; we expect, given the significance of *energeia* and being actually in Aristotle's cosmos, for actuality to be prior in the overall, grand scheme of things; and this picture is built up for us by arguing that actuality is prior in all of these four specific ways. In other words, actuality is overall prior to potentiality in Aristotle's theory of the universe because it is prior in these ways.

Now I argued earlier that the full significance of the temporal and the substantial priorities of actuality is understood only by considering these two priority relations taken together.¹³⁷ They both range over individual cases of coming-to-be and are grounded in Aristotle's theory of causation. The actuality that is prior in time to the potentiality (and to the potential's becoming actual) is that found in the moving cause. The actuality that is prior in substance to the potentiality is that found in the final cause. The moving cause is there at the outset of coming-to-be, while the realization of the final cause is there at the completion of the process. Actuality governs both ends of the process of generation,

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¹³⁶ For use of this material from second philosophy, see in particular Λ 6 1071b6–11.

¹³⁷ See the end of ch.2. And there is explicit textual evidence for doing this at Θ8 1050b4–6.

and is accordingly prior to the potentiality that is realized during the process. So we see how actuality is prior in individual cases of coming-to-be.

But the principles first philosophy seeks out are not going to be the principles governing any particular instance of generation; rather, the eternal principles are properly speaking the principles of coming-to-be and passing away in general. They explain the externality and alternation of the cycles, not the individual happenings during a particular cycle. What explains those are the four Aristotelian causes. Aristotle sometimes says that the moving causes of a man are his father and the sun, ¹³⁸ and what he surely means by the latter is that the sun is a cause of the eternal continuity of human generation, and for every other natural species as well. If we want to explain why this particular man came to be, we appeal to his father. But if we want to explain why many generations of human beings have come to be, have passed away, and have been succeeded by other generations that in turn do the same, Aristotle will appeal to the sun and its motions and the cycles they initiate. Now there is of course a significant amount of discussion of the principles of eternal generation and corruption in the natural works, but these discussions do not treat these principles qua beings. Intuitively, we expect the eternal principles to have a higher and more primary form of being than the perishable things that depend on them, but it is beyond second philosophy to say what any of that amounts to. At best, the student of nature can speak in a quasi-poetical way about the higher form of being enjoyed by the eternal principles. Indeed, this is what Aristotle himself does in On

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¹³⁸ Λ5 1071a15–16 and *Physics* II.2 194b13.

Generation and Corruption in the chapter already quoted from above. He there goes on to say:

Coming-to-be and passing-away will, as we have said, always be continuous, and will never fail owing to the cause we stated [i.e. the sun and its motion along the inclined circle]. And this continuity has a sufficient reason. For in all things, as we affirm, nature always strikes after the better. Now being (we have explained elsewhere the variety of meanings we recognize in this term) is better than not-being [$\beta \hat{\epsilon} \lambda \tau i o \delta \hat{\epsilon} \tau \hat{\epsilon} i v a \hat{r} \tau \hat{\epsilon} \mu \hat{n} \hat{\epsilon} i v a]$; but not all things can possess being, since they are too far removed from the principle. God therefore adopted the remaining alternative, and fulfilled the perfection of the universe by making coming-to-be uninterrupted; for the greatest possible coherence would thus be secured to existence, because that coming-to-be should itself come-to-be perpetually is the closest approximation to eternal being.

The cause of this as we have often said, is circular motion; for that is the only motion which is continuous. That, too, is why all the other things—the things, I mean, which are reciprocally transformed in virtue of their qualities and their powers, e.g. the simple bodies—imitate circular motion. For when Water is transformed into Air, Air into Fire, and the Fire back into Water, we say the coming-to-be has completed the circle, because it reverts again to the beginning. Hence it is by imitating circular motion that rectilinear motion too is continuous. (336b25–337a7, *Revised Oxford Translation*)

Being is better than not-being, and the eternal principles have being but the perishable things do not—they have only becoming. But their perpetual becoming is their way of trying to approximate the being of their principles, as is the reciprocal transformations of the elements. Aristotle is not going Platonist here, but, simply put, that is the only kind of explanation second philosophy can give about the being of the eternal principles. It is not really an explanation at all. For Aristotle's real and positive account, we turn to his first philosophy, where we are told that the highest form of knowledge, wisdom, will culminate with an understanding of the primary principles of the universe. "The first principles and the causes are most knowable; for by reason of these, and from these, all other things are known" (A2 982b2–3, *ROT*).

Now Aristotle did not explicitly set out in $\Theta8$ to explain the principles of general coming-to-be and passing away qua beings, but that is in effect what he does when he undertakes his final argument for the priority of actuality. It is his theory of noncorrelative actuality that will be the basis for explaining why the being of the eternal principles is superior to that of the perishable substances that depend on them. Eternal substances do not have any potentiality or matter underlying their being the substances they are, nor are their motions the exercise of any potentiality. We already know from physics that circular local motion is the primary motion, and the only motion that can be eternal; but now we can begin to understand how eternal motion is possible (something that clearly falls outside the scope of physics to explain). There can be eternal motion because there can be actual being that is not the exercise of any underlying potentiality, and so there is no reason that the motion must come to a stop. Non-correlative actuality makes eternal being possible, and the priority of the primary kind of motion converges here with the primary way of being a being, i.e. with being actually, since the circular local motions of the sun, stars, and heaven enjoy being of this nature. This is the material of first philosophy proper, and part of the wisdom that was announced as the goal of the inquiry.

A theory of non-correlative actuality and a theory of the priority of non-correlative actuality together constitute an important part of the elusive wisdom discussed in the earlier books, the desire for which motivated Aristotle to write the *Metaphysics*. They allow him to understand the primary principles *qua* beings. These principles are substantial forms, eternal sensible substances (i.e. the heavenly bodies of the superlunary

realm), the motions of these substances, and the separate, non-sensible and immovable substances that move them. His understanding of non-correlative actuality and its priority makes it possible to deduce the general structure of reality, and allows him to prove the existence of a non-sensible eternal substance that is the mover of the first heaven, the eternality of which is also provable. So it is evident how this material contributes significantly to the stated goals of first philosophy, and how Aristotle's understanding of actuality in the *Metaphysics* as presented here allows him to treat of the subject matter in the way that first philosophy requires.

Appendix A: Θ8 1049b16-17

The last clause of Aristotle's argument for the priority of ἐνέργεια in λόγος (1049b12-17) reads, in Ross's text:

ώστ' ἀνάγκη τὸν λόγον προϋπάργειν καὶ τὴν γνῶσιν τῆς γνώσεως

Jaeger prints:

ώστ' ἀνάγκη τὸν λόγον <τοῦ λόγου> προϋπάρχειν καὶ τὴν γνῶσιν τῆς γνώσεως

inserting τοῦ λόγου and changing the meaning somewhat.

Yet priority in γνῶσις is not mentioned either in the introduction to the chapter (1049b4-12) or anywhere else in the argument. I suspect that the reference to knowledge at the end was added by a later interpolator who perhaps had Meta. Δ11 1018b30-7 in mind. In Δ , things prior in account are said to be a subset of things prior in knowledge, as are also things prior in perception. (Consider also *Meta*. Z1 1028a31-b2, where priority in γνῶσις is distinguished from priority in λόγος.) Makin's commentary notes the difficulty of interpreting this reference to knowledge at the end of the argument, and he simply raises a number of unanswered questions (*Book* Θ , 183). Makin translates thus: "it is necessary for the account and the knowledge of the one to precede the knowledge of the other" (10), following Ross's text. However, this would require here a τε ... και construction (τὸν τε λόγον...), and so cannot be accepted; neither can the translation in the revised Oxford edition, for the same reason. If one does modify the text to τὸν τε λόγον in order to solve the grammatical issue, this puts the verb προϋπάρχειν in an unusual position (between the two conjuncts), a word order that is quite odd. The combination of (1) the reference to γνῶσις being highly abrupt and without any previous mentioning in the chapter, (2) the inability of commentators to explain what it means (the Londinenses are also unsure what to make of it, Burnyeat et al., Notes, 138), and (3) the ungrammaticality of the inherited text, together suggest excising these five words. Jaeger's suggestion that τοῦ λόγου dropped out seems less likely, but at least acknowledges the problem. Also, both Ross's and Jaeger's decision to put the entire argument in parentheses seems rather odd, though perhaps a parenthetical remark does begin at b16 with ὁ δ'αὐτός..., as Fred Miller has suggested.

Appendix B: Θ8 1050a12-14

The efforts of commentators to solve the textual mess at line 14 are unsatisfying, as they admit (Ross, *comm ad loc.*; Burnyeat *et al.*, *Notes*, 141-2; Makin, *Book* Θ , 272, makes no attempt). I believe I have a viable solution to this fretted-over issue.

The problematic sentence (I am stipulating that this is a sentence, for convenience) reads in Ross's edition:

άλλ' οὐ θεωροῦσιν ἵνα θεωρητικὴν ἔχωσιν, εἰ μὴ οἱ μελετῶντες· οὖτοι δὲ οὐχὶ θεωροῦσιν άλλ'ἢ ώδί, † ἢ ὅτι οὐδὲν δέονται θεωρεῖν †.

Ross notes that the words between his daggers are "excessively difficult, and one would be tempted to regard it as a gloss ... if one saw what the gloss meant" (262). The Londinenses concur, and after discussing various possible solutions (all deemed unsatisfying) note: "Since we could not believe that [the daggered text] could be even an unintelligent gloss on $\mathring{\eta}$ $\mathring{\omega}\delta \mathring{\iota}$, or on anything else, and we could not find a spot from which the words could have been displaced, we remained in a state of dissatisfied $\mathring{\alpha}\pi op \mathring{\iota} \alpha$ " (142). Jaeger puts the same five words in brackets, following Diels, but again has no explanation for the apparent gloss.

Here now is my solution to this *aporia*. What other commentators have not realized is that it is possible (albeit incorrect) for a reader to take οὖτοι of line 14 as anaphoric with both of μελετῶντες and the subjects of the preceding verbs θεωροῦσιν and ἔχωσιν. This was the way the original modifier of the text resolved to take it. The result is that this reader, since he took there to be a reference to two kinds of theorizers (professionals and students), and since he detected a repetition between οὐ θεωροῦσιν and οὐχὶ θεωροῦσιν and an implicit ἴνα θεωρητικὴν ἔχωσιν in the latter, and since he guessed that ἢ was part of a lost or implicit $\ddot{\eta}$... $\ddot{\eta}$ construction, thus added the "gloss" (really a confused extenuation) to give the text the following meaning: people who theorize (οὖτοι: professional theorizers and their students) do not theorize (οὐχὶ θεωροῦσιν) either because what they do is not properly theorizing (ἢ ὡδί for the students) or because they have no need to theorize (ἢ ὃτι οὐδὲν δέονται θεωρεῖν for the professionals). This makes little sense by itself but perfect sense within the broader context. What Aristotle has just said in the first half of the sentence is that people do not theorize in order to have theoretical science—except for students, an apparent counterexample. Yet there is no counterexample here: people who theorize (οὖτοι) do not in fact theorize in order to acquire the science, since if the theorizers are students what they do do is not properly theorizing, and if the theorizers are professionals there is no need for them to theorize (οὐδὲν δέονται θεωρεῖν) since they already have it. My translation (of the proper text) puts the emphasis on the verb "to theorize" (via italics) whereas the Greek adds the emphasis by making the negating adverb deictic (οὐχί): "but people do not theorize in order to have theoretical science (except for those practicing it—but they do not theorize but rather [act] in such a way)." The adversative force of $\dot{\alpha}\lambda\lambda'\ddot{\eta}$ is: these people do not theorize, but either $(\dot{\alpha}\lambda\lambda'\ddot{\eta})$ they merely act in this way or they do not theorize because there is no need for them to.

Appendix C

Compare this passage of the *Metaphysics*:

τὰ τῆ γενέσει ὕστερα τῷ εἴδει καὶ τῆ οὐσία πρότερα ... ἄπαν ἐπ' ἀρχὴν βαδίζει τὸ γιγνόμενον καὶ τέλος... (1050a4-5, 7-8)

'what is posterior in generation is prior in form, i.e. in substance ... in every case [of generation] the thing coming to be proceeds towards a principle, i.e. its end...'

with this passage from the *Physics*:

όλως τε φαίνεται τὸ γιγνόμενον ἀτελὲς καὶ ἐπ' ἀρχὴν ἰόν, ὥστε τὸ τῆ γενέσει ὕστερον τῆ φύσει πρότερον εἶναι. (261a13-4)

'In general, the thing coming to be appears imperfect [or incomplete] and going towards its principle, so that what is posterior in generation is prior in nature.'

Several lines later (a19-20), this same notion of priority is labeled as priority with respect to substance, $\kappa\alpha\tau$ ' oùoí $\alpha\nu$. Note that it is *not* controversial that the terms 'priority in substance' and 'priority in nature' are interchangeable in Aristotle, as the title of Michail Peramatzis' recent paper verifies.

Both passages make the point that what is prior in substance is posterior in generation, and that the thing coming to be proceeds or goes towards a principle. While the $\Theta 8$ passage does not use the word ἀτελές to describe the γιγνόμενον, it seems to me a secure interpretative move to assume that the γιγνόμενον of $\Theta 8$ is also ἀτελές, i.e. imperfect or incomplete. ἀτελές does not mean 'lacking an end', since the γιγνόμενον certainly has an end; it is ἀτελές because it has not yet reached its τέλος (but is proceeding (βαδίζει) or going (ἰόν) towards it) and is consequently imperfect or incomplete.

The important point here is that the notion of priority in nature and substance in *Physics* 8.7 is similar to that of $\Theta 8$ 1050a4-b6. Thus, using the *Physics* passage to help interpret $\Theta 8$ is warranted.

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