# Does the Unmoved Mover Necessarily Imply the Physical Universe?

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**This is the first in a series of "digital extensions" to**
***Aristotle's "Not to Fear" Proof for the Necessary Eternality of the Universe***

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A scholar who teaches *Metaphysics* Lambda, medieval philosophy and the history of logic (to mention only a few of his specialties) mentioned Averroes's interpretation of Aristotle. According to the great Andalucian's view of the Northern Greek, the universe is "necessarily implied" by the eternally-existing Unmoved Mover (UM). The scholar asks why, then, I consider the universe to be contingent in Lambda and why Averroes is wrong.

The answer follows, although the more rigorous reply involves also considering that Michael Bordt is right when he recently interprets Lambda as showing that the *Nous* which thinks of itself thinking is different from the UM—see
https://www.epspress.com/NotToFearUpdates.html#Bordt
—or that (to consider an issue Bordt does not address) the universe is necessarily implied by *both* the UM and *Nous* in combination.

Although I praise Averroes in a related respect (for recognizing that for Aristotle ratios only hold between finitudes and that we, at risk of irresolvable paradox, cannot compare or even assert "larger" and "smaller" infinities), the Northern Greek himself could not have held the view that the *contingent* physical universe and its eternal motion is *necessarily implied* by the UM (or by *Nous* or by a combination of the two). Let us see the reasons for this by starting with just the UM and then proceeding to the two other options, after covering why in Lambda the universe is contingent for the Stagirite, albeit eternal, and after other preliminary remarks.

## Preliminary Remarks

Logical versus ontological implication

The kind of implication we are concerned with is not mere logical, or *de dicto*, implication but ontological or real, *de re*, implication. This is easily seen. I can say, as an instance of the valid form bArbArA that all basic logic students know:

All Unmoved Movers are purple-eyed monsters.
All purple-eyed monsters are eternally-existing things.
All Unmoved Movers are eternally-existing things.

Clearly, the conclusion logically follows, or is necessarily implied by, the premises. Yet none of this is evidence for the *truth* of the conclusion (or of any premise). The example simply reflects how validity, including implication, in reasoning (and formal logic) is a matter of form.

Rather, what we care about now is whether the UM, with the properties that Aristotle gives it (which of course do not include purple eyes), would necessarily imply *in reality* any physical entities, properties or events. (Since both properties and events presuppose entities as substances that have properties, as we see below for Aristotle, if no physical entity is implied by the UM, then no need exists to consider whether properties and events are implied.) This "natural implication" is less easily determined than logically valid forms, but we will see examples below from other Aristotelian texts that help demonstrate that in no way does the UM of Lambda imply something physical, much less *necessarily* imply it. Even less does the UM necessarily imply (or even non-necessarily imply) a whole universe *that has stars which move in a circular way*. Aristotle discusses other "unmoved movers" that are physical, like an "unmoved" man who moves a ball by hitting it with a stick, but this type of (lower-case) unmoved mover is not relevant to the current discussion (*Physics* VIII 5, 256a6-13; also see my pp. 256-7).

## The meaning of necessary, potential, and possible

Because we are dealing with *necessary* implication, let us clarify what "necessary" means. Aristotle states that its most fundamental notion, from which all other notions follow, is "that which cannot be otherwise" (*Metaphysics* V 5, 1015a34-1015b1.) I generally use the term in that sense here (and for other, derivative senses, see my pp. 14-9). Thus the implication *cannot be otherwise*; that is, it cannot be, for example, merely possible or fictional. Yet we will see that the implication at issue cannot even be probable; at the best it is a possible implication in which possibility just means fictional possibility or conceivable possibility. Yet we are in the context of ontology and metaphysics, not drama or literature, and fictional possibility is worthless here.

Regarding possible and potential: It has been an article of faith for Aristotelians that anything with matter has potentiality. Anything with potentiality also has, by definition for him, the potentiality not to be (*Metaphysics* Theta 8, 1050b8-9; Lambda 6, 1071b13-14), of which more below. This is also what is meant by "possibility *qua* contingency," because in this context possibility and potentiality function the same, as confirmed by Aristotle when he gives "possibility" three meanings in the *Prior Analytics*, one of which is potentiality, and when he uses the terms interchangeably in Theta 8. Regarding the first point, as I write in *Aristotle's "Not to Fear" Proof* (p. 101):

> Richard Patterson states:
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> > One final comment on a curious and stubborn textual question: The passage in which Aristotle first begins to discuss possibility propositions

> (*Pr. An.* A.3, 25a37-b14) is, as Ross remarks, a "very difficult" one. Aristotle says, first, that possibility is said in several ways (*pollachōs legetai to endechesthai*, a37-39), for we call the necessary, the not necessary, and the potential possible (a38-39).[38]
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> 38 Richard Patterson, *Aristotle's Modal Logic: Essence and Entailment in the Organon* (Cambridge: Cambridge University Press) 1995, p. 256. Because I agree and disagree on various claims that Patterson makes in the rest of this book, I should acknowledge in the interest of full disclosure that I studied under him (with great pleasure) at Columbia University.

On the subsequent pages (101-3), I explain how and why "possibility" has the three different senses for Aristotle. However, for our purposes here, suffice it to say that possibility (or potentiality) *qua* contingency is to be or not to be. More precisely, when possibility (or potentiality) *qua* contingency has a temporal sense, as in Theta 8, then contingency means something (or some property) existing *at least once (for a finite time) in all eternity*. Otherwise, if it existed always, it would be necessary, and if it never existed, it would be impossible. (The Northern Greek rules out in *De Caelo* that one-sided infinities need to be considered: If something exists infinite to the past it cannot end "finitely"; if something is created, then, *pace* Plato, it cannot continue infinitely; cf. my pp. 32; 57-66.) Thus, the only three options for the (temporal) modals that we need consider in this context are possibility *qua* contingency, necessity *qua* omnitemporality, and impossibility as never existing throughout eternity. It is obvious that the sense of necessity *qua* omnitemporal is rooted in the more fundamental sense of necessity as that which cannot be otherwise.

Following is but one of the many passages indicating that for Aristotle the universe is contingent in Lambda (as also noted on p. 1 of my book):

> Since there were three kinds of substance, two of them natural and one unmovable, regarding the latter we must assert *that it is necessary that there should be an eternal unmovable substance*. For substances are the first of existing things, and if they are all destructible, all things are destructible… ***for that which is potentially [such as anything with matter] may possibly not be***. There must, then, be such a principle, whose very substance is actuality. Further, then, **these substances must be without matter; for they must be eternal, at least if anything else is eternal**. Therefore they must be actuality (*Metaphysics* XII 6, 1071b3ff, transl. by W.D. Ross in *The Complete Works of Aristotle*, vol. 2, ed. Jonathan Barnes, Princeton: Princeton University Press, 1984; my emphases).

This is to say, if all (sensible) substances are destructible, then the totality of all of the substances—the universe—would be destructible, given that they have matter; likewise anything else physical, like fire and air and anything derived from the substances, because substances are primary, as Aristotle emphasizes. To obviate a complete destruction occurring, Aristotle posits that there is a substance that is indestructible and later in Lambda suggests that at least part of the universe apperceives the UM and moves (eternally), analogously to a lover moving because of an unmoving beloved, who is perhaps sleeping. This eternal unmovable substance, as we see above in the passage, cannot have matter. Again, with matter always seems to come potentiality, and with potentiality is the potentiality (or possibility) *not* to be. Thus, *if* the Pure Actuality, the eternal substance without matter, exists, it could not go out of existence for it would have no possibility

(or potentiality) to change in any way whatsoever (nor could it move, because motion is merely another type of change).

Hence, the universe itself must be contingent given these passages, despite it being eternal. It is eternal by luck or by chance or, better yet, by virtue of the UM somehow providing a ground for it. Presumably, this—the UM providing a ground— is why Averroes or anyone else might claim the universe is "necessarily implied" by the UM. Thus, there are two issues: (i) Whether Aristotle has given any evidence for the existence of the UM *or whether he has merely postulated into existence what he needs*; and (ii) whether the UM, assuming for the sake of argument that it exists, *necessarily implies* the moving universe. I concentrate here primarily on (ii).

## Necessary Implication

What would it mean to say that the universe is necessarily implied in the *de re* sense by the UM (or by *Nous* or by a combination of the two)? More precisely, could a *contingent* universe be at one and the same time *necessarily* implied by something that, in the temporal sense given above, is absolutely *necessary and omnitemporal*? That is, how can the universe be *both* contingent and necessary, for if it is necessarily implied by an entity that is absolutely necessary, for additional reasons that are given below, it itself must be necessary. Yet nothing can be both contingent and necessary, given the (ontological) definitions of these two modal terms. As we saw above, there is a sense in which something necessary is also possible; this was one of the three senses given in the *Prior Analytics*, and I explain it in the pages already cited, but that is not the sense in use now or in Theta 8.

The core of my answer to whether the universe can be contingent and yet necessarily implied by something necessary is already given in my book, in a section on "eternal accidents" (pp. 197-200). I rephrase the issue now in terms of "necessary entailment" to accommodate the scholar mentioned at the outset. To establish some principles and understand *de re* necessary implication better, let us start with some of the Northern Greek's cases that also deal with the nature of an entity and necessary implication.

### Examples of (Necessary) Implication

In the *Dramatics (aka Poetics)* 6, Aristotle gives the essential characteristics of "tragedy" and then derives the six "merely" but explicitly *necessary* conditions for all "tragedies": plot, character, reasoning, speech, music-dance, and spectacle. (I put "tragedies" in quotation marks because the translation is a dreadful one for a Greek term, *tragoidos*/*tragōdia*, that Aristotle says three times can show a protagonist going from *misfortune to fortune*; moreover, the best types are given in Chapter 14 as those that end happily, like *Cresphontes, Iphigenia*, and *Helle*, as I demonstrate in detail in my easily-found books on this topic, and we hardly allow happily-ending drama to be called "tragedy" in modern-day English.) *The essential conditions are not only necessary* ***but in the definition***. Here is a clear-cut case of conditions that are necessarily implied by the definition. Note that there is no contingent, particular tragedy *qua* particular derived from the

essential conditions in the definition (in the relevant way), and all of the derived conditions are themselves also necessary, not contingent.

Similarly, in *Metaphysics* V, Aristotle explains how some properties of a triangle are (necessarily) entailed. He begins by explaining "accident" as something like chance that cannot exist eternally or for the most part. Finding a treasure while digging a hole for planting would be an accident (and we could add that having short blonde hair would be an accident of, say, a particular human being). Then he adds:

> "Accident" has also another sense, namely, whatever belongs to each thing in virtue of itself, *but is not in its essence*; e.g., as having the sum of its angles equal to two right angles belongs to the triangle. *Accidents of this kind may be eternal, but none of the former kind can be* (***Metaphysics*** V 30, 1025a30-34; Ross transl.; my emphases).

This all assumes that the essence (and therefore the definition) of a triangle is a "3-sided geometrical figure," and this all entails, too, that the eternal accidents are *necessary*, not contingent, because anything existing eternally is necessary, given the temporal sense of the modalities. For instance, "having 180 degrees" is an eternal accident that is *necessarily* entailed by the definition. 180 degrees always exists for all triangles. However, 180 degrees is obviously not an *essential* property because it is not in the definition. Moreover, a straight line also has 180 degrees and thus merely from the number of degrees we do not arrive (via necessary implication) at "triangle." Finally, a particular triangle that is drawn by a geometer may have blue or red lines, but these are contingent and in no way part of the essential or derived necessary conditions. As we see, nothing contingent, like the length of the hypotenuse of any *particular* triangle, is derived (properly) from the essential conditions to be a necessary condition *per se*, although we might derive, and have derived, necessary geometrical laws that cover the proportion of any hypotenuse to the other two sides.

Similarly, whichever position one takes in the perennial debate about the definition of "human being" that Aristotle seemingly gives, whether it is "two-legged animal" or "two-legged rational animal" (see my *Aristotle on Dramatic Musical Composition*, 2018, pp. 415-6), clearly some properties such as having blood and flesh are necessarily implied whereas others—like the *particular* color of everyone's hair—are not. Indubitably, the latter is contingent just as is the existence of any *particular* human being. Color of the body *in general* may be necessarily implied because anything with flesh, blood and hair has color but no *particular* color is implied, at least regarding a species that has many races. Black widow spiders may be different because the essential conditions include "black"; otherwise we do not have a *black* widow spider.

Not all entities (like a heart or pair of lungs) or properties that are necessarily implied are internal. They might be external. In the case of human beings, who must breathe in order to live, surely a suitable environment is necessarily implied. Individuals live on earth or at least must have air and food.

Normally, we would never have to deny that, for example, a movement of a spaceship is necessarily implied by "triangle" or by *homo sapiens,* because anyone knowing even the basic nature of triangle and *homo sapiens,* and any external requirements, would never be foolish enough to think that (a movement of) a spaceship could be implied, much less necessarily implied. However, the concerns of this article are not normal, and historically scholars have accepted the most outrageous theories, and thus it is important to emphasize that some things can be implied by the nature of x but obviously some things not.

With all of this in mind, let us address whether the physical universe is necessarily implied by the UM, *Nous* or a combination of the two.

## I. The Unmoved Mover (UM) as Pure Actuality

What is implied by the UM? Assuming, as Aristotle suggests, that its essence is substance, *which is absolutely without any physicality and thus without any potentiality*, it (necessarily) follows that the Mover is unmovable and exists eternally, because without potentiality it has no potentiality to change itself in any way. Change includes, but is not limited to, movement or the cessation of existence. The *lack of potentiality* is necessarily implied, being derived from the fact (or better yet the mere supposition) that the Mover has no physicality. What is also necessarily entailed by (Pure) Actuality, although the Northern Greek never says this to my knowledge, is that it has no location and no boundaries. To assert otherwise would immediately contradict its nature as something utterly non-physical.

Thus, given that the essential properties of the UM involve no potentiality whatsoever, it does not seem reasonable to claim that *another* power, potentiality or ability is necessarily implied by It. Aristotle can derive necessary conditions of "tragedy" because of its definition as a representation of a serious action, in (enacted) dramatic and not narrative form, etc. Similarly a contingent event, like the existence of a particular "tragedy," could be seen to be implied by the definition if the contingent event satisfies all of the essential (and "merely" necessary") conditions. Yet we would not say the definition necessarily implies the contingent "tragedy" in the sense that the definition *causes* the tragedies to exist or to cease existing. Rather, the Northern Greek derived the definition empirically, from the drama that he experienced or heard about, and once the definition is understood, we can subsume particulars under it and in *that* (conceptual) sense we can assert an implication between something essential and necessary and something contingent. Clearly, though, this phenomenon and type of relationship between something necessary and something particular (and therefore contingent) does not apply to the UM, because Aristotle never experienced the UM and derived its essential nature. He merely posits its existence to solve the problem of how to guarantee the existence of an ostensibly contingent universe.

Likewise, we can derive "eternal accidents" of a triangle from its essence as "3-side geometrical figure." We in no way, though, sensibly derive objects or qualities that do not stem from those essential properties. Only a blithering idiot would say that we can derive basketball from the definition of triangle (perhaps because a famous coach used the "triangular offense") or that we derive Cabernet Sauvignon from the definition of either "tragedy" or the Unmoved Mover. Yet if

the UM implies the circular motion of a universe, why does it not also imply wine and, more precisely, Cabernet?

Thus, since the UM has absolutely no physicality and no potentiality itself, it would be equally absurd to claim that it implies (and even worse implies necessarily) something physical. Moreover, the universe depends on it, and not the opposite, so we cannot appeal to *external* necessary implications to justify the existence of the universe, as we could with a suitable environment for human beings. Lastly, *no* ***contingency*** *that is relevant to the existence or the movement of the universe exists* ***as a result of the UM existing***. In other words, there is no contradiction between holding that the UM exists and the physical universe not. Leaving aside labels like "UM" and "Pure Actuality," again, the entity that Aristotle posits has no location, no boundaries and no physicality. What he has really and inadvertently described (despite the quaint names) is Pure Nothingness and it is mere word-play for anyone to contend that something physical follows from this, either necessarily or contingently.

All of this is the basis of the further absurdities resulting from claims that the UM somehow interacts with any part of the physical universe (be it an ensouled star or a thinking mind) to cause eternal motion, especially eternal motion of a certain type, namely, circular motion. Were something (if we can call it a "something" for lack of a more appropriate term) to be non-physical involving no potentiality whatsoever and thus no location or boundary, it could not be perceived or grasped or contained in anything physical, *including any physical interaction*, and Aristotle's explanatory analogy of the lover moving because of the unmoved beloved completely breaks down. Human lovers can be moved by an unmoved beloved because both individuals are physical, with locations and boundaries, whereas the UM is not and can in no way be perceived or apperceived by souls or stars. Besides, how would any ensouled star or mind know it is interacting with the UM rather than with some other mind or ensouled star? It could not (and thus it would have no reason to move in a circle *ad infinitum*). Other absurdities are detailed further on my pages 228-41 and 283-99.

## II. ***Nous***

Assuming, as Bordt argues, that *Nous* is different from the UM, what is *necessarily implied* by a Mind that thinks of itself thinking? I call this *Nous* a hyper-intellectual Narcissus in the book, but I will be less mythological here. First, given Aristotle's biology, no mind can think without a brain and no brain can exist without a body. Immediately we have additional dilemmas on Aristotle's own account because any enmattered entity has potentiality and thus the potentiality not to be.

Hence, *Nous* is contingent and at some point will cease to exist. In this latter case, were the universe to be implied by *Nous*, all its "entities" (including *Nous*) are contingent. We therefore escape any seeming contradiction that arose previously because a contingent eternal universe must be necessary in virtue of being necessarily implied by something, the UM, that itself is absolutely necessary. Yet we have merely jumped from the frying pan into the fire, because now we no longer have any entity that is guaranteed to exist eternally, and *that* is the most fundamental problem that Aristotle was trying to solve in Lambda.

Moreover, as I repeatedly emphasize throughout Part 2 of the book, the self-centeredness of *Nous* necessarily implies no concern with any (other) part of the physical universe whatsoever. Indeed, it is remarkable that *Nous* could even be aware that the physical universe exists. It would also not care in any way about human affairs, which caused Cicero and others great dismay (see pp. 280 and 307ff; cf. also, R.W. Sharples, "Aristotelian Theology after Aristotle," in D. Frede and A. Laks, eds., *Traditions of Theology*, Leyden: Brill, 2002, 1-40, p. 1, a work that came to my attention only after the publication of *Aristotle's "Not to Fear" Proof*).

One might object and say that this kind of super-brain *could* exist physically and be perceived by ensouled stars. That is, maybe the super-brain is a whole solar system, galaxy or universe. One difficulty with this objection, however, apart from the galaxy/universe being contingent and being able to disappear, is that the stars, like the lover, would presumably move towards the beloved and would not simply go in a circle (or why would they not simply pirouette in place *ad infinitum* if circularity were so important?). Further details are given in the pages noted above for the related paradoxes of the UM, but, in short, if the stars are just part of the super-brain *qua* galaxy or universe, why the need to posit a different and separate *Nous*? How does that galaxy/universe think of itself? Are the parts thinking of their (partial) selves? Even granting that someone could answer those paradoxes, we would now have a form of deism in which the deity *is* simply the universe, but deism is perfectly compatible with the inherent necessary eternality of the universe as given in the "Not to Fear" Proof. If one can answer sensibly the aforementioned questions and wishes therefore to call the universe *Nous* or "God," I have no objection other than to say that it is a vastly different, non-anthropomorphic type of entity from the one Christianity and other religions propose.

## III. The UM as *Nous* (or the Interaction of the Two ) as Necessarily Implying the Universe

The first variation of this third option is that the UM is the same as *Nous*. Despite this variation having been assumed historically by philosophers and especially by medieval theologians like Aquinas, the identification of the two is unpalatable. How could the UM, with no physicality and no potentiality whatsoever, think, much less think of itself thinking? The notion is completely untenable: Either Mind, then, is a Pure Nothingness that thinks of itself thinking, which is preposterous, or it is something (physical) and has some brain-like nature, in which case it cannot be Pure Actuality and in which case it has the ability to not exist.

The reader might object and say that *Nous* is the lover and the UM the beloved (or vice-versa) and that somehow they interact together to ensure the eternal movement of the universe. However, the additional absurdities of this view also immediately surface. First, to continue with our theme, what is "necessarily implied" by this alleged interaction? *Nous* as the lover has no way of interacting with the UM, just as no other brain-type entity has a way of interacting with something that has no spatial and physical property whatsoever. Second, and arguably worse, unlike the lovers in our lives who are willing to focus especially on their beloveds, *Nous* has no desire of any kind to do anything other than think of itself thinking. Hence, it would never have the desire *or*

*the ability* to focus on the UM and even if it did, how does eternal motion of the physical universe result? We are forced back to the problems of (II) above if somehow *Nous* is ostensibly causing the circular motion or of (I) if the UM is ostensibly causing the motion. To say that the interaction of the two is instead causing the motion is to either take the worst of both worlds or simply to utter nonsense, given that the mere existence of the interaction itself is so implausible. Similar paradoxes obviously result if the UM now plays the role of the lover and *Nous* the beloved.

## CONCLUSION

In summary, couching the issue of the necessary UM and the contingent but eternal universe in terms of "necessary implication" (following Averroes) in no way comes close to resolving the paradoxes of the doctrines of Lambda, especially regarding how the UM causes eternal circular motion of the universe. As I claim in Part 2 of the book, someone like Theophrastus or another colleague of the Stagirite's would have recognized all of this within weeks, if not days or hours, of Aristotle presenting Lambda. Whether the Northern Greek renounced the doctrine *before* or *after* he realizes the better theory of the inherent necessity of the eternal universe as given partially in Theta 8 (and as detailed in the "Not to Fear" Proof), I cannot and need not say.

Theophrastus and everyone else (at least in the know) for some time afterwards understood that neither the UM nor *Nous* was truly championed by the mature Aristotle, which is why no one from any of the philosophical schools debated the UM for centuries. (The option that *Nous* was presented to accommodate dangerous Athenian religious fanatics cannot be ruled out; cf. pp. 295; 306-13.) Only with Alexander of Aphrodisias injecting a mysticism back into Aristotle's work over 500 years later (by taking Lambda to be the Stagirite's final doctrine) do later commentators seriously embrace the youthful fanciful solution, that is, the mere variation on the UM of Xenophanes and Anaxagoras. Andronicus of Rhodes may deserve some of the blame if his organization of the texts into the current order suggests that Lambda is the final metaphysical word in this context, but Andronicus may have inherited an order that Apellicon or another editor had already established (cf. my pp. 241; 281; 311-2).

In brief, as clever as Aristotle's solution in Lambda is initially (with the UM somehow guaranteeing the circular motion of the universe by the analogy of the lover and beloved), it quickly breaks down and has never been satisfactorily explained. Nor could it ever be satisfactorily explained, because, to re-emphasize, the Pure Actuality has no physicality whatsoever and thus could never interact in any way whatsoever with any part of the physical universe. In addition, "without matter" must be a synecdoche for "without matter, *energy or any physical property*," given the conversions that can take place between matter and elements like fire and air and their related properties like light for Aristotle (as detailed in, e.g., the *Meteorology* and *De Caelo*; see my pp. 155-7). Any physical aspect of existence, be it our term "energy" or the like, would clearly have potentiality. Yet, again, with absolutely no physicality, there is no way the Unmoved Mover could interact with anything (like a star or soul or mind) in the universe or with any aspect like "energy" or light or any property of any substance whatsoever.

Indeed, we can see now that the term "Unmoved Mover" does not even properly refer to something because it has no more existential force than Xenophanes's and Anaxagoras's own Unmoved Movers. We can mouth the words but they refer to nothing outside of our mind, like King George the 93rd of England. I examine the problems with trying to provide any evidence or argument for the existence of such a strange, merely imaginative entity on pp. 284-7. Aristotle's youthful positing of the UM is extremely creative but hardly evidence in and of itself for the existence of such a thing, as he emphasizes himself when he stresses that thinking of something does not necessarily bring it into being, whether or not the thinking is a definition (*Physics* III 8.208a14-19; see also my p. 93; and for the related issue of "mere" conceptual or fictional possibility versus possibility in accordance with probably or necessity, that is, with natural law, cf. pp. 80-105 and 117). We can assert the existence of a unicorn or define the unicorn; obviously, neither conceptual act necessitates that the unicorn actually exists.

Of course, if, as in Theta 8 and more precisely in the "Not to Fear" Proof, the universe for Aristotle is eternal *necessarily*, in and of itself, the Unmoved Mover loses its motivation and appeal. One major reason that no one saw all of this starting with Alexander of Aphrodisias is that Aristotle's temporal (ontological) notion of the modalities was not understood until Jaakko Hintikka and Sarah Broadie, one generation ago, but even those two brilliant scholars focused on other issues pertaining to metaphysics, truth, logic and determinism, and not on theology (see my pp. 106-141 and 149-151).

## Postscript

The often-debated question historically of which is primary, existence or essence, was also brought up by the anonymous scholar noted at the beginning. To my knowledge, Aristotle does not care about this issue whereas he does care about the primacy of actuality versus the primacy of potentiality in Theta, especially in Chapter 8. Nevertheless, from the perspective of the mature Stagirite, whether essence precedes existence (or vice-versa) is as trivial a question as whether the chicken or the egg (or the father or the baby boy) came first. Given that the species are eternal, there never was a first chicken or first egg or first father or first baby boy. Similarly, depending on the meaning of "essence" and of "primary," given the inherent necessary eternality of the universe and at least for the most important eternal objects and eternal truths (that in no way involves Aristotle countenancing Platonic Forms, as I discuss on pp. 104 and 275), the Northern Greek would likewise say that there is no primacy: If essence means "essential nature" and if primacy means "primary in time," then the existence of the universe and of any eternal substances coincide with their essential natures and neither was primary in time. They were, and are, always together.

We can complicate the issue by making "primary" mean "primary in understanding" and "essence" mean "essential properties" (or "essential properties in a definition" that is articulated by a thinker), or any variation and combination of the meanings, but this not the place to cover all the permutations on this topic. Philosophers historically have taken different approaches to it, with, e.g., Sartre applying existence and essence to human beings in a certain way to reject a Hegelian tradition, but Sartre's focus and argument would require an extremely different discussion.

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