DRST 003: Directed Studies Philosophy Professor Epifanio Elizondo

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Charlotte's Finite Web: Causality in Aristotle's Metaphysics

by Anya Richkind

In his *Metaphysics*, Aristotle argues very effectively for the existence of at least one unmoved mover¹. Aristotle argues for an unmoved mover in four steps: (1) there are the three kinds of substances, (2) actuality is prior to potentiality, (3) the relationship between potentiality and actuality shows that sensible, eternal substances are prior to sensible, perishable substances, and (4) the relationship between potentiality and actuality shows that immovable substances are prior to sensible, eternal substances. The unmoved mover, an exemplar of immovable substances, is prior to sensible, eternal substances and therefore also to sensible, perishable substances.

(1) There are three kinds of substances

Aristotle argues that three substances constitute the universe: sensible, perishable; sensible, eternal; and immovable. Sensible substances are the subject of physics, because they imply Aristotelian movement, in that they can undergo any kind of change. Of the sensible substances, those that are perishable have finite life spans, like plants and animals. Those that are eternal have infinite life spans, like the elements and the heavenly bodies. The immovable substances, conversely, must belong to another kind of science, for the immovable substances have no principles in common with either of the sensible substances. Because the immovable substances share no characteristics with the sensible substances, it follows that immovable substances cannot undergo any kind of change.

¹ McKeon, Richard. <u>The Basic Works of Aristotle</u>, New York: Random House, 1941, MP Book XII.

(2) Actuality is prior to potentiality

Aristotle's concept of 1st and 2nd potentialities and actualities, on a general level, is:

(A) A body that is potentially alive is the 1st potentiality of that body.

- (B) A body that is actually alive is the 2^{nd} potentiality and 1^{st} actuality of that body.
- (C) A body that moves in its characteristic way is the 2nd actuality of that body.

To demonstrate how this framework shows that actuality is prior to potentiality, I will discuss the lifespan of an individual chicken. Let us call this chicken "Charlotte", her rooster father "Charles", and her rooster grandfather "Charlemagne":

- (A) The unfertilized egg is the 1st potentiality. Pre-conception, this egg is merely stuff that could potentially be alive.
- (B) The fertilized egg is the 1st actuality and 2nd potentiality. The moment of conception when the sperm paired with the egg is the beginning of Charlotte's life. After conception, this egg has been actualized: it is now stuff that could be Charlotte.
- (C) The fully grown chicken is the 2nd actuality. Fully grown Charlotte is the most chicken-y chicken possible for Charlotte.

The efficient cause that transforms the 1^{st} potentiality (the unfertilized egg) into a 1^{st} actuality/ 2^{nd} potentiality (the fertilized egg) is the sperm of Charlotte's father, Charles. Charles is the actuality that actualized Charlotte's 1^{st} potentiality. Since Charles is an actuality in himself, he is the actuality that is prior to Charlotte's potentiality. This framework can be applied to any substance that undergoes change; therefore, in all sensible substances, actuality is prior to potentiality.

(3) Sensible, eternal substances are prior to sensible, perishable substances

I will demonstrate this argument in multiple steps: (A) every sensible, perishable thing is part of an infinite series of said sensible, perishable thing, and (B) this infinite series is a 2^{nd} actuality in itself, and therefore must have been preceded by a 1^{st} actuality/ 2^{nd} potentiality, and (C) the efficient cause for this infinite series is the sensible, eternal substances. Therefore, sensible, eternal substances are prior to sensible, perishable substances. I will first show that every individual chicken is part of an infinite series of chickens, and then I will show that this infinite series of chickens can be explained by the sensible, eternal substances.

Returning to the chicken example, it follows that fully grown Charles (father of Charlotte), like fully grown Charlotte, was the 2^{nd} actuality of his lifespan. Therefore, Charles must have been preceded by a 1^{st} actuality/ 2^{nd} potentiality, namely the fertilized egg that would later grow into fully formed Charles. This fertilized egg must have been fertilized by the sperm of Charles's father, Charlotte's grandfather, Charlemagne. Charlemagne, too, must have been preceded by a fertilized egg, that had been fertilized by the sperm of *his* father. It follows that every chicken/rooster must have been preceded by a sperm fertilizing an egg, and that sperm must have come from a preceding rooster. Therefore, the cycle of chickens must extend indefinitely backwards in time. Since chickens will always continue to birth more chickens (barring any mass chicken genocide or a freak occurrence in which chickens lose the desire to reproduce), the chicken cycle is eternal in both directions.

This entire chicken cycle can be seen as a 2^{nd} actuality, since the existence of this cycle is a change in the universe. Therefore, following Aristotle's general framework of potentialities and actualities, the actuality of the chicken cycle must have been preceded by a potentiality. One can call the potentiality which preceded the actuality of the chicken cycle the "chicken soul". The chicken soul is the possibility for the chicken cycle to exist.

Thus, it follows that there must be an actuality prior to this potentiality, an agent that actualizes the potentiality of the chicken soul. Aristotle claims that this agent is the heavenly bodies (planets). While in Charlotte's case, Charles's sperm actualized the change from 1st potentiality to 1st actuality/2nd potentiality, in the case of the chicken soul, the heavenly bodies actualize the change from 1st actuality/2nd potentiality to 2nd actuality (because there is no clearly discernible 1st potentiality for the chicken cycle). By moving in circles, the heavenly bodies influence the chicken soul to turn on/off. Typically, mating seasons for animals coincide with natural season. Similarly, plant cycles slow down during the season of winter, and thrive during the season of spring.

(4) The immovable substances are prior to the sensible, eternal substances

Because the movement of the heavenly bodies can also be seen as an actuality, there must exist an actuality that actualizes the potentiality of heavenly bodies. Aristotle claims that this actuality is the immovable substances. At least one of the immovable substances must be pure actuality, with explanatory power over itself. Because this pure actuality actualizes the potentiality of the heavenly bodies, without moving itself, Aristotle deems this substance the "unmoved mover", or G-d. The heavenly bodies move in their characteristic way – in circles – because of the unmoved mover, in order to be more god-like. The unmoved mover is prior to the heavenly bodies, which are prior to the perishable things. Thus, without moving itself, the unmoved mover can move all other things.

While the counterargument that the series of explanatory power could continue forever may initially seem appealing, acceptance of Aristotle's three kinds of substances – sensible, perishable; sensible, eternal; and immovable – shows that the series of explanation must end with the unmoved mover. On the premise that these three substances are the only ones in our universe, there are four possibilities for explaining immovable substances:

(A) Sensible, eternal substances have explanatory power over immovable substances,

- (B) Sensible, perishable substances have explanatory power over immovable substances,
- (C) Nothing has explanatory power over immovable substance,
- (D) Immovable substance explains itself.

Possibility (A) is impossible because immovable substances have explanatory power over sensible, eternal substances. Explanatory power works in only one direction; a substance cannot be explained by that which it explains. The impossibility of possibility (A) makes possibility (B) impossible. Since sensible, eternal substances cannot explain immovable substances, it follows that a substance explained by sensible, eternal substances also cannot explain immovable substances stances. According to the rationalist principle, everything must be explained by something, so possibility (C) is impossible. Therefore, by the process of elimination, possibility (D) is the only solution. Immovable substance must explain itself.

Even if one argues that Aristotle's three kinds of substances do not include all possible substances, the immovable substances would still remain at the top of the series of causality. If there were a fourth (or fifth, etc.) element that Aristotle failed to recognize, there are two possible outcomes, in terms of where that substance could fit in the series of causality: either (A) the new substance would be explained by one of the three substances already outlined, or (B) the new substance would be at the top of the chain of causality above the immovable substances, and would thus explain all the other substances. If (A) were true, the new substance would still ultimately be explained by the immovable substances. (B) cannot be true. Because any change is an actualization of a potentiality and by definition immovable substances cannot undergo change, immovable substances cannot be actualized. Therefore, because it is impossible for any substance to actualize a potentiality in an immovable substance, it is impossible for any substance to be prior to immovable substances. Only outcome (A), which assigns ultimate priority to the immovable substances, is possible. Therefore, even if Aristotle were incorrect about his breakdown of the three kinds of substances, the unmoved mover would still remain at the top of the series of causality.

If one accepts the existence of an immovable substance that cannot undergo change, and therefore cannot be explained by any substance other than itself, the series of causality must be finite, terminating with the unmoved mover. Within Aristotle's parameters of the three kinds of substances and the concept of actuality's priority over potentiality, the existence of at least one unmoved mover is very difficult to refute.