Aristotle and Descartes on Causality by Christie Gribcshaw

In this paper there will be an examination of Aristotle's Physics II which will lay out Aristotle's four types of causality, focusing on his concept of final causality. Then, there will be an explanation of Descartes' view in which he rejects the validity of Aristotle's version of final causality. This will be done by describing Descartes' focus on efficient causality with relation to his first proof to the existence of God found in his Meditations on First Philosophy. Then, the two views will be compared and contrasted and an argument will be given as to why Aristotle's view is the more correct of the two. This paper will also examine the Cartesian Circle problem found in Descartes' proof which discredits the proof as the reason Descartes fails to show that efficient, material, and formal causes are sufficient to explain all aspects of nature without final causality.

Aristotle supposed that there are four types of causality: the material cause, the formal cause, the efficient cause, and the final cause. He explains these causes with the example of a bronze statue. The material cause is explained as that out of which something is. The bronze that constitutes the bronze statue would be its material cause. The formal cause is the account of what the object is to be. In the example this would be the statue's shape. The efficient cause is the most primary source of rest or change for the object. This is the artist or the art of the making of the bronze statue. The last cause (called the final cause) is the sake or reason for which the thing is done; otherwise describes as the end or purpose. The end of the bronze statue would be the artistic progress

or expression that came from the making of the statue (Falcon 2).

This is a teleological explanation of the statue's production. Most people of Aristotle's time believed that all things had a material, formal, and efficient cause; however they did not believe that all things had a final cause or that a final cause was even necessary (Falcon 2). Aristotle wrote a defense of his idea of final causality because of the skepticism of the other philosophers and because he believed in the idea.

Aristotle's defense of final causality demonstrates how nature requires a final cause. He is explaining the characteristic regularity of the other three causes in nature. This is not a proof but it is an explanation. One example he provides is rain and how the results of rain are always coincidental because rain does not occur for good or for bad. Rain does not occur to make crops flourish or die; it simply occurs. Following from this Aristotle explains how it is plausible that natural change can occur in a coincidental way (Falcon 4). This explanation would work for all things in nature.

Aristotle then moves on to a more detailed example about the teeth of animals. If the principle just described for rain is true then that would mean that animal's teeth do not grow for a good or bad reason. They do not grow for the animal's survival or demise; there is no causal connection between the growth pattern of the teeth and survival of the animal. From this the question becomes why do the animal's teeth grow regularly in the way that they do? The teeth always grow more sharply in the front and more broadly in the back (canines and molars

Aristotle and Descartes on Causality

respectively) but why? This arrangement of the teeth is perfectly suited for biting and chewing food that the animal needs. This means that there should be an explainable regular connection between the animal's needs (for food in particular in this case) and the formational pattern of that animal's teeth (Falcon 4).

There can only be one of two explanations: that there is a causal connection or that there is not a causal connection. Even if the latter is true and the growth pattern is only coincidental to the animal there is still a requirement of an explanation for the regularity of this coincidental formation. All regularity requires explanation whereas coincidence does not require explanation. A material cause would not explain this because it would not explain the regularity and neither would a formal or efficient cause (Falcon 4).

A final cause is the only one that would be able to explain this regularity. It would state that the formation of the teeth of the animal (or any formation of a part of the animal) is done for the good of the animal's continuing existence. It is done either because the animal could not survive without it or because the animal would be better off without it. Aristotle argued this is because the final cause is the end and that which claims to be an end and is also the best is the true end (Falcon 4).

Descartes studied Aristotle and his four causes and rejected entirely Aristotle's idea of final causality. This is because Descartes thought that people would not be able to derive any explanations of nature that would come from God since people are unable to conceive of God's plan. Descartes reasoned that for persons to be able

to understand the perfection of God's works they would need to be able to see the universe as a whole; however human beings cannot see the big picture. Further, the fact that people sometimes believe to know of God's plan is due to the will having a wider scope than the intellect. This enables people to cast beliefs on topics which they do not understand and thus fall into error (Descartes 21).

Instead Descartes focuses on efficient causality and develops this with his proof of God's existence in his Third Meditation in relation to his Causal Adequacy Principle where he states that something cannot come from nothing and therefore everything needs a cause which is efficient in the amount of reality it provides for its own effect (Skirry 5). In brief, this means that effects are given by their causes. This principle does not only apply to material things but also to ideas and their causes. This can be further applied to prove God's existence, since even the idea of God is the idea of an infinite substance which must have an efficient cause which is also an infinite substance. The representative reality of the idea of God must have at least as much actual (intrinsic) reality as God (the existing object) does.

To show the plausibility of this Descartes devises a proof to the existence of God with three axioms. The first is that it is necessary that there is at least as much reality in the efficient cause as there is in the effect of that cause. Second, it is impossible that something would arise from nothing. Third, nothing that is more perfect can come from something that is less perfect. Essentially, an idea requires no formal reality except for that which it derives from a thought. He also described two modes of being: the

Aristotle and Descartes on Causality

objective mode (ideas by their nature) and the formal mode (causes of the ideas). It is also important to note that his definition of God was a substance that was independent, omniscient, infinite, benevolent, and omnipotent (Descartes 15).

Additionally, this idea of God had to be an innate idea. Descartes argued that the idea of God (an infinite substance) could not have come from a person's imagination because people are finite. However, the idea of God is not a false one because it is utterly vivid and clear with more representative reality than any other idea in a person's possession (Descartes 23). From this it follows that the idea of God had to be innate and placed there by God himself which thus proves his existence. Also, in order for this to follow God could not be a deceiver. Descartes takes care of this concern by reasoning that God would only need to be a deceiver if He lacked in something. Since God is perfect He could not be lacking in anything. God therefore would not be a deceiver because He would have nothing to hide (Descartes 28).

From these axioms the proof of the argument then follows that an idea must contain a certain objective reality and for this to happen it must come from a cause that contains as much or more formal reality as there is objective reality in that idea. It is also necessary that there is a cause that has formally all the reality that there is objectively in the idea. If there is an idea who's objective reality cannot come from 'me' (a human being) it follows that it must come from something else. The idea of God could not have possibly come from 'me', a person, because God has more formal reality than 'I' do. This means that

the idea of God (and the attributes of God) must have come from God, because God has as much formal reality as the objective reality in the idea of God has. It then follows that God must exist. Descartes' proof to the existence of God is therefore reliant on the efficient cause (Skirry 5).

From the way that Descartes laid out the proof, the final cause would not be necessary. This is because there is not a reason (end) for the existence of God; or at least there is not one which a person would be able to conceive of because of the nature of God's existence and the characteristics which He possesses. It is then reasoned that if God does not have a final cause and all things come from God since God has more formal reality, then nothing has a final cause and the idea can be discarded. Descartes sees God as that which is apart from all the other things that are being changed and moved. God is separate because for Descartes, God is the moving cause; the efficient cause of all things (Descartes 16).

While Descartes lays out a seemingly convincing argument, there are problems inherent in agreeing with it. If Descartes's proof rested on sound reasoning then there would be no way to disagree; however it does not come from sound reason. This is because the argument is set up to be a Cartesian Circle. What Descartes is basically saying is that what he distinctly and clearly perceives is true. He then says that he distinctly and clearly perceives God to have the characteristics he previously laid out (omnipotent, infinite, omniscient, independent, benevolent). He then says that it follows that God created him in a way in which whatever he distinctly and clearly

Aristotle and Descartes on Causality

perceives is true. These three statements then continue around and around in a circle with each other and it would be extremely difficult to prove which one started the circle, (let alone prove that the first one is true without using evidence from the other two) or where it ends (Garber 6). If the reasoning were sound at least one of Descartes' points would be able to stand alone without relying on proof from the other points.

Since Descartes proof cannot stand on its own, Aristotle's argument, when he says that everything in nature does require a final cause, seems more convincing than Descartes' argument for efficient cause. Though all the causes are important the final cause is more important than the efficient cause and thus it is more plausible that the final cause exists. This is because there is not a way to explain the regularity of nature except regarding what is at the end of its processes; according to Aristotle. This gives the final cause an explanatory priority over the efficient cause which is only the explanation for the initiation for the processes of nature. For example, one would not be able to explain how a tree grows from a seed without reference to the final product i.e. the tree itself.

Things are explained as being done because of or regarding the end that is being accomplished by the process. This does not mean that Aristotle did not think there were exceptions to this rule. It only means that when a final cause is possible it is the most important cause one needs to know. There are rare cases where no final cause is found such as the eclipse of the moon and in these instances efficient causality can fill the role of final causality. However, Aristotle argued that for most

processes there is a final causality especially when explaining the characteristic regularity of something such as nature (Falcon 4). For this reason it seems more likely that as Aristotle claimed, there are four types of causes and final causality is the most important one.

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