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PHIL-3410

Second Homework - Aristotle

5/15/15

Motion is absolutely essential to the Aristotelian conception of the cosmos, and as such, these cosmos may not consist of, nor within, a void. Aristotle took on a different definition for change than his predecessors, choosing to acknowledge the potential for a being or object to shift to an altered state or place as an instance of change. Formerly, change had been defined as result of being emerging from non-being. Aristotle’s broader acknowledgement of the phenomenon allowed him to traverse the logical restrictions proposed by Parmenides - namely that motion is impossible because things may not emerge from nothing.

Exploring the potentiality involved in change brought about several new logical barriers which Aristotle had to address. Foremost, it is empirically observable that there are different kinds of motion. Animate creatures are capable of movement, in addition to inanimate objects - when provoked. For this reason, Aristotle postulated two kinds of motion: natural, and violent. Natural motion is a kind of motion that is inherently possible due to the nature of the mover. According to Aristotle, there are four aspects of an object - its causes - which specify the nature of that object. Seeing as the human being has muscles, joints, and the cognitive capacity to manipulate these parts, the material and formal causes (or biological and structural elements) of the human being allow for it to undergo natural motion. Further, the human being is subject to final causes, or underlying purposes and goals which require movement. While a lifeless rock might lack this same motivation, it is similarly capable of natural motion, in that it is made of earth, which, Aristotle argued, has the property of gravity. The falling motion of a rock is a result of its material and formal causes just as much as the motion of a living, breathing human.

Under the Aristotelian conception of existence, there is yet another aspect of objects - their efficient cause - which allows them to be capable of motion in a way vastly different from that of natural motion. Aristotle argues that objects are submissive to the actions of other objects, and will take on different natures based on how they are interacted with. For example, a baseball has no inherent drive to move, yet if one picks it up and throws it, it will undoubtedly be capable of motion. The thrower created an efficient cause for the baseball, and the baseball moved as a result of violent motion, rather than natural motion.

Regardless of the type of motion, these changes can result because things are always ready to accept new causes. The baseball always had the potential to be thrown, but did not move until actually thrown. Similarly, the human being always has the potential to move, but only does so as a result of final causes. Aristotle believed that time was a product of motion, a direct result of the potential for the cosmos to continue moving. The connection between time and motion was inseparable for Aristotle, as he noted the *movement* of heavenly bodies as our way of measuring time. Thus, in order for motion and time to exist at all, they must have the potential to do so. In a realm consisting of, or within, a void (as was proposed by the Atomists), motion would be entirely random and chaotic. If an object is set in motion in a world built upon a void, it will be unrestricted, and will move indefinitely. Seeing as this is not a feature of either of Aristotle’s types of motion, it follows that such a void is impossible. Rather, Aristotle postulated that the cosmos are a plenum, filled entirely with aether and the four elements - a conclusion made possible by his logical definition of motion.

References

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