Science of Nature: Examining Aristotle

Helen Lang attempts to explore the characterization of Aristotle's Science of Nature in physics. The article examines the use of logic in Aristotle's works to ascertain whether or not Aristotle had grouped certain topics together or if they were grouped together injudiciously by a later editor or compiler of Aristotle's work. She relies heavily on comparing the *logoi* present in Aristotle's *Physics* to that in *Metaphysic*, and finally those in *De Caelo*.

The "science" of "nature" of "physics" exemplifies what complicates this article. There are far too many unknown or quoted phrases. Even in the footnotes Lang reveals that there are arguments among scholars on certain verb tenses in Aristotle's work. The discussion of "by nature" and "by other causes" is straightforward enough. "By nature" exists for change, Lang uses Aristotle's acorn to an oak tree example. "By other causes," is mainly exemplified with the phrase "by art," which, both Aristotle and Lang argue, is a creation and cannot be knowledge. The "by art" category includes things such as furniture or clothing. These are the basic breakdowns of things as they relate to nature.

Lang then moves on to discuss Aristotle's classification of matter and substance. She examines the comparison between the physicist and the mathematician and their "objects." Aristotle concluded that the differences were unclear. To draw distinction, he looks into the "tasks" of each. The usefulness of a mathematical hierarchy only becomes apparent when Aristotle replaces Plato's hierarchy of material with one of his own creation.

In *De Caelo* bodies and magnitudes are discussed at length, but Lang wants to know if they are compatible with what Aristotle called "things made by nature." She eventually reveals

that mathematics works with abstractions which "does not affect the legitimacy of the examination," but that matter as studied, cannot neither "be nor thought about from its relation to form." Aristotle describes them as "common and universal" while some have "special attributes."

Lang basically does the same thing with this article. This is probably the only way to analyze Aristotle's works, is to take a specific stance on what his verbiage means. Some of Aristotle's writings are "common and universal" while others, specifically *De Caelo* in this case, have "special attributes." She argues that it is the historians' job to determine Aristotle's organization and to bring some coherence to his writings, at least regarding how they relate to the history of physics.

While Lang works hard to compare the threads of the works of Aristotle there is something lost within the argument. By attempting to add coherence to the ancient texts, Lang's own gets very convoluted and incoherent at times. This may be due to the source material, or simply filling subject matter with comparisons of what Aristotle said or called something, what Land has said or called something, and the third more ethereal what Aristotle meant. With a better structure or perhaps a standard lexicon, the analysis and argument of works such as this could be better understood by individuals without a lifelong research history with Aristotle's work or Ancient Greek jargon.

The article appears to be more of a discussion on the meaning of words, phrases, discussions more than an actual understanding of when and why these works were written. Could *De Caelo* have been a response to a specific stimulus that was unrelated to the early focus of *Physics* or *Metaphysics*? What were the contexts of each work and did that have any impact on

Aristotle's use of *logoi?* That seems more of the job for the historians of science. What Aristotle actually *meant* seems to be better worked out by the historians of philosophy.

An intro paragraph giving the explicit word choice, combinations, or replacements would greatly help the flow and understanding of this article. A short list of Aristotle's words compared to what the article will equate to them would greatly reduce the amount of phrase quotation that certainly bogs down the reader as well as clear up some of the readability of Lang's article. There is no doubt that Lang understands Aristotle's *logoi* extremely well, but perhaps this specific exercise could be better received as an oral lecture than a printed work.