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Aristotle's Category Construction and the Why Behind It

Margaret Rae Titcomb

Abstract

Aristotle's Categories, or the Categories, is a comprehensive classification system for every object of human understanding that can be either a subject or a predicate of a proposition. There are ten categories: Substance, Quantity, Qualification, Relative/Relation, Place, Time, Position, State (Condition), Action, and Affection. The first part of this paper will explain each of the categories in the order in which they are presented in the chapters of Categories. The second half of the paper will discuss the question of ambiguity in the approach Aristotle uses to both construct and find meaning in these categories. Fr. Joseph Owens examines the use of metaphysical, logical and grammatical ways in which Aristotle presents the categories. Owens observes the benefits and disadvantages of Aristotle's mixed approach, and questions the usefulness of the system as a whole. This paper will argue that Aristotle successfully uses all three approaches, sometimes separately and sometimes in combination, to create a thorough process for systematizing all objects of human cognition.

In the *Categories*, Aristotle introduces the first official comprehensive system for classifying everything that exists in the world and the descriptive words that predicate, or assert something of, things. The doctrine of the *Categories* is a basic organization of how people speak about things in the world. Because of its apparent self-evidence and lack of metaphysical or even logical profundity, categorical construction is often considered an arbitrary

process. A question that arises in reading the treatise is whether Aristotle is coming from a grammatical, logical, metaphysical, or combinatory approach. This paper will examine Aristotle's system of categories and a paper by Joseph Owens which tries to determine what kind of treatment Aristotle uses for his system, in an attempt to discover the need for and purpose of the *Categories*.

In the first chapter of the book *Categories*, Aristotle writes about three ways in which things are named. Equivocally means one word used in two different ways. So the predicates of this subject share a common name but differ in definition. When things are said to be named univocally, they share the same name and the same definition. The third way in which something can be named is as a derivative of something else, which means they both stem from the same name, but differ in termination of the name.

The next chapter deals with forms of speech, namely simple and composite terms, and predicability of and presence in a subject. A simple term would be "man" or "runs," a composite would be "the man runs." In terms of predicability and presence, there are four different combinations of their occurrence. Something can be both predicable of and present in or neither predicable of nor present in something. A thing can also be predicable of a subject but never present in a subject, or present in a subject but never predicable of a subject.¹⁶ In this sense, *present in* denotes the necessary existence of something in something else, or that thing's incapability to exist apart from the other thing. Examples of these will come later.

The next chapter of the *Categories* treats the differentiation of different species of knowledge. In general, species of

¹⁶ Richard McKeon, ed., *The Basic Works of Aristotle*. (New York: Random House, Inc., 2001), 1.1a17-1b1-4.

knowledge are not distinguished by the same differentia, except where one genus is superior to the other. Another important point is made about this category. When a thing is predicated of another, it follows that all that is predicable of the predicate will therefore be predicable of the subject. For example, if ‘man’ is predicated of ‘animal,’ and ‘individual’ is predicated of ‘man,’ then ‘man’ and ‘animal’ are both predicable of ‘individual’.¹⁷

In chapter four of Aristotle’s treatise, he discusses the categorical construction of simple expressions. These expressions represent substance, quantity, quality, relation, place, time, position, state, action and affection. Simple expressions do not involve affirmation in themselves, but only when they are combined do positive and negative assertions arise.

Arguably the most important Aristotelian category, ‘substance,’ is explained in chapter five. Aristotle’s most fundamental definition of substance is “that which is neither predicable of a subject nor present in a subject”.¹⁸ He then goes on to state the two types of substance: primary (e.g. individual man) and secondary (e.g. species ‘human’). Everything except primary substances is either predicable of or present in a primary substance. Substance also has no opposite,¹⁹ for instance, there is no contrary to the individual human, David. A single substance cannot contain varying degrees of substance within itself. This means that a man cannot be any more or less man from one time to the next. However, a substance can allow for contrary qualities about itself by a change in the substance.²⁰

The sixth chapter deals with quantity, which can be either discrete or continuous. The difference between the two

is whether a quantity’s parts have relation to each other. In discrete quantities, there is no common boundary among the parts, so they each are separate and distinct. Examples of discrete quantities are numbers and speech.²¹ Continuous quantities, lines, surfaces, solids, time, and place; have a common boundary where their parts join. Therefore, one can say which parts are touching; e.g. the common boundary in a line is the point.²² An important feature of quantities is that they have no contraries, which is easily seen in discrete quantities (e.g. there is no opposite of the measurement ‘four centimeters long’).²³ Another important attribute of quantity, as Aristotle claims its “most distinctive mark is that equality and inequality are predicated of it”.²⁴ For instance, two objects can have equal weight, both weighing two pounds; or they can have unequal weights, one two pounds and the other five pounds).

The next categorical construction is of relatives. These are things that are spoken about only by reference to something else. Relatives can have opposites, and they can also have correlatives.²⁵ If the object one is apprehending or perceiving does not exist, neither does that knowledge or perception.²⁶ One thing that is never relative is primary substance (the whole or its parts). An advantage to knowing a relative thing is that one thus also knows everything to which it is related.²⁷

The category construction of quality is “that in virtue of which people are said to be such and such.” There are four primary types of quality in Aristotle’s eyes: habit or disposition, ability or inability, affective quality or affection, and figure and shape. In

¹⁷ Ibid., 1.1b10-15.

¹⁸ Ibid., 5.2a11-13.

¹⁹ Ibid., 5.3b24.

²⁰ Ibid., 5.4a10.

²¹ Ibid., 6.4b24.

²² Ibid., 6.5a1.

²³ Ibid., 6.5b11.

²⁴ Ibid., 6.6a26.

²⁵ Ibid., 7.6b15-26.

²⁶ Ibid., 7.7b29.

²⁷ Ibid., 7.8a15, b14.

the first type, a habit is enduring and deeply established in an individual, and not easily uprooted by opposition. The different types of knowledge and virtue are habits, e.g. if one has the quality of loyalty, for that was established in that individual at an early age. A disposition, on the other hand, is a more temporary and easily altered quality that is weak to withstand opposition. Body temperature and health are instances of dispositions.²⁸ Dispositions also apply to knowledge, for the person not normally inclined to knowledge of boating could learn how to boat for a day.

The second type of quality explains one's inborn ability or inability to perform a task with ease or evade defeat.²⁹ We commonly think of this kind of quality as a talent or skill. An example of this kind of quality would be someone who is a good fighter.

The third quality indicates things that are described in a certain way because of qualities they possess. Sweetness and bitterness are examples of affective qualities. An affective quality is a quality that is to affect something viz. perception. Affection differs from an affective quality in that it is the result of an affection, e.g. paleness of skin when sick. These qualities also apply to the soul, for one's temper, which originates in deeply rooted affections, is an affective quality (e.g. insanity).³⁰ It must remain that affections are not called qualities, for they are very temporary and stem from ineffective causes. If someone is irritable when annoyed, she does not necessarily have a bad temper in general, but is simply affected when something irritates him.

The last type of quality Aristotle gives is figure and shape. Straightness and curvature and other qualities of the sort

would fall under this category. Figure and shape must not be confused, however, with relatives such as roughness and smoothness. For one object is only considered to be "rough" when compared to a smoother object. These comparisons come from the position of the parts relative to each other in the whole,³¹ making a thing more or less dense, rigid, soft, etc. Nevertheless, qualities do admit variation of degree.

The next chapter covers action and affection, both of which allow opposites and varying degrees. For instance, one can perform an action such as to cool or heat something (opposites) more or less (variation of degree), and one can be affected by heat or coolness to a certain degree. This short chapter is evidently logical.

Chapter ten deals with opposites, of which Aristotle names four kinds. Correlatives are placed in the category of relation and are pairs that are spoken about by reference to each other. Contraries are not dependent on each other like correlatives, but rather are opposites (e.g. good and bad, hot and cold).³² Positives and privatives are contraries that answer to the same subject (e.g. blindness and sight refer to the eye). Aristotle says something metaphysically important here, that "creatures which from birth are without sight, or without teeth, but these are not called toothless or blind." Only individuals who have lost the ability to hear or see, for instance, have the privation of deafness or blindness. He then clears up some potential grammatical confusion about these terms.³³

Next, Aristotle describes the multiple uses of two words related to time. Chapter twelve considers the word "prior" and its applications. "Prior" can refer to (*I*) an instance occurred in the past (previous in

²⁸ Ibid., 8.8b25-35.

²⁹ Ibid., 8.9a15.

³⁰ Ibid., 8.9b35-10a1.

³¹ Ibid., 8.10a11-19.

³² Ibid., 10.11b23.

³³ Ibid., 10.12a33-35.

time), (2) that which comes before something in a sequence (e.g. of numbers: 1,2,3...), (3) in a certain order pertaining to the sciences or to linguistics (e.g. the letters in the alphabet), (4) in the sense of “priority,” given a higher value (in goodness or honor), or (5) the cause of one of two interdependent things.³⁴

Aristotle then goes on to define the word “simultaneous” in chapter thirteen. This word can be used to describe multiple things that simply come into existence at once. Another sense of the word is interdependency without necessity: the existences of the things are dependent on each other, but neither is essential or prior to the other. The last meaning refers to the hierarchy of living things, even more metaphysical than the previous two usages. Beings that are “simultaneous in nature”³⁵ are different species in the same genus.

Chapter fourteen treats the category of motion, of which there are six kinds: generation, destruction, increase, diminution, alteration, and change of place. Aristotle points out that all the types of motion obviously differ from one another except alteration, which is not easily distinguished from the other types of motion. The difference with alteration is that affections are the cause of it, not other types of motion. These affections can produce an effect (alteration) that is distinct from the other types of motion, and a thing that is affected does not necessarily experience an increase or a diminution, for example. Aristotle then states that rest is the general opposite of motion, and that each type of motion has its distinct opposite (e.g. destruction is the contrary of generation).³⁶

In the final chapter of the *Categories*, Aristotle delineates the meanings of the verb ‘to have.’ The first

meaning is used of a habit or another kind of quality that an individual possesses, e.g. a bad temper or an ability to box. The next sense is in reference to quantity (e.g. I have three gumballs), and the following to clothes or parts of the body (e.g. she has a coat; you have an eyebrow). The last main sense of ‘to have’ is in regard to possession or acquisition,³⁷ for example one can ‘have’ a house or a dog.

A key distinction made in the *Categories* is that between substance and accident. Primary substances are individual objects, and secondary substances and accidents are predicable of primary substances. Primary substances are the most fundamentally real things for Aristotle, and the predicates closest to a primary substance are more real than predicates more loosely related to it. Every primary substance is distinct with definite boundaries, has a beginning and an end, and goes through changes that do not permanently alter its identity. For Aristotle, the only instance of substantial change is death.

Another important distinction is between universal (general) and particular. These terms are applied to substance and accident to make four different combinations. A general substance is a secondary substance, for example, Jared’s thinness is a general substance. A particular substance is a primary substance; therefore ‘Jared’ would be a particular substance. An example of a universal accident would be the color red in general, whereas a particular accident would be the color red in Jared’s shirt.

One may ponder, after reading the doctrine of the *Categories*, whether there is a truly useful purpose for category construction. Joseph Owens raises the question of possible arbitrariness of Aristotle’s treatise in his paper “Aristotle on *Categories*.” He also seeks to determine

³⁴ Ibid., 12.14a30-14b13.

³⁵ Ibid., 13.14b34.

³⁶ Ibid., 14.15a14-25, b1.

³⁷ Ibid., 15.15b18-26.

whether its primary focus was on words and how it defends itself against examples of category mistakes.³⁸

In the first section of his paper, Owens examines the doctrine in its original ancient Greek setting. He inspects the terms Aristotle uses in the *Categories*. The Greek word for “category” pre-Aristotle was used in the sense of an accusation, either in general or in the courts, being more of a legal term. The verbal form translates to “show,” “reveal,” “signify,” etc. Aristotle seems to use it in this treatise as “predicate.” As it has been used in philosophy and has linguistically developed, “category” means “that which is asserted” of something else.³⁹

Owens states that the first chapter of the doctrine does not indicate whether Aristotle is approaching it from a grammatical, logical, or metaphysical standpoint. He points out examples of each type of treatment found in the beginning (e.g. the definition of paronyms at the end of chapter one is expressed through grammatical terms, whereas the second chapter deals with predication of and presence in a subject, which is more metaphysical).⁴⁰

According to Owens, chapter two of *Categoriae* reads like a combination of both metaphysics and logic. He is referring to the switch from simple and composite expressions (grammar) to assertions about beings and the difference between a substance and an accident (ontology and logic). Owens notes this shift as a departure from the grammatical field, which foreshadows what he will claim in section II about the possibility (or lack thereof) of a grammatical treatment in the doctrine as a whole.

³⁸ John R. Catan, ed., *Aristotle: The Collected Papers of Joseph Owens*. Albany: State University of New York Press, 1981. 14.

³⁹ *Ibid.*, 14.

⁴⁰ *Ibid.*, 15.

What directly follows, that some things are necessarily in a subject but are never predicable of a subject,⁴¹ is more purely metaphysics, but Aristotle gives a grammatical example for this category. Owens points out that the statement that nothing but the individual can be that particular individual follows a grammatical rule. He then explains that the affirmative side of the statement, “some things... are present in a subject,” deals fully with metaphysical ontology, whereas the negatory side, in which the things are never asserted of a subject, is logical.

Owens then goes on to write that the meaning of the next two categories (assertion of *and* being in a subject, and neither assertion of *nor* being in a subject) is evident, but the mystery of the peculiar mixture of different treatments Aristotle uses to illustrate these rules endures. He then claims that in the next six chapters of the treatise, Aristotle inexplicably uses the term “category” in the technical sense of predicate. Aristotle uses the verbal form “categorize” to signify “assert,” equivalent to the meaning in the previous chapter. And so the confusion continues.

Owens then explains how Aristotle shows the advantage of category construction in chapter three. From this chapter arises a *schema* of predication, or a hierarchy of predicates in which the lower predicate is always subordinate to the higher.⁴² The purpose of properly placing any subject in its correct category, according to Owens, is the wide array of knowledge one gains about a subject based on knowing its predicates. When one categorizes something, she then confirms all higher and more general predicates above that category that pertain to it.

Section II of Owens’ paper is an investigation of the type of treatment

⁴¹ McKeon, *Basic Works*, 2.1a25.

⁴² Catan, *Aristotle: Collected Papers*, 16.

occurring in the *Categories*. Owens further analyzes the question of whether the treatment is grammatical, logical, or metaphysical, and if it is a combination, Owens wants to find how much weight each type holds. This question asked, Owens declares that the treatise is not fundamentally grammatical. He mentions Trendelenburg's failed attempt at proving that Aristotle's approach was primarily grammatical, and dismisses it rather quickly, saying it would not be worth the effort of trying again to prove this claim. Owens then moves on to pose the question of whether logic is at the forefront of Aristotle's category construction. He explains that much of Aristotle's inquiry of categories has a logical nature. For instance, the predication of species to individuals and then of genera to species exemplifies a coherent, systematic organization of the metaphysical positioning of things in the world. However, Owens finds a problem when the logical aspect of Aristotle's doctrine falls short of justifying the metaphysical features manifest in the *Categories*, such as the explanation of substance and accident in regard to existence. Owens then postulates the idea that the doctrine could be primarily metaphysical with logical results, or vice versa, with mainly a logical treatment ensuing metaphysical aftermath.

Owens claims the doctrine of a universal nature, which would imply a metaphysical domination of the work, is not self-evident in Aristotle's work but Owens believes it is an underlying aspect of Aristotle's teaching. He proves this by showing that the common nature exists in two ways: (1) being in the real world and (2) being in the (human) mind. Its existence in reality is found only in individuals and it can be explored both in the physical sciences and in metaphysics.⁴³ In the mind it

⁴³ Ibid., 18.

produces the *schema* of predication starting with the individual substance. Owens shows this doctrine to indicate a logical treatment. Because it is mainly founded on the natures of things and not on linguistics, it is not a grammatical treatment. The treatise is also not arbitrary because category construction follows the nature of existence rather than random human whim. Owens concludes from this that a comprehensive treatment of category construction requires both metaphysical and logical treatment.⁴⁴

In section III of Owen's paper, he confronts Aristotle with examples of category mistakes to see how well the doctrine holds up. The first type of category mistake Owens offers is for one to confuse the predicates of a nature existing in reality with predicates of the nature as it is in the mind. One common instance of this mistake is thinking that in Aristotelian metaphysics, the individual is primary substance. Here Owens points out the separation between Aristotle's metaphysics and his logic. While in Aristotle's logic he clearly states that the individual is primary substance, in his metaphysics he claims it is secondary substance. Contradictions like this cause scholars like Fr. Owens to question the reliability and utility of the categories.

While Fr. Owens writes his paper wondering whether Aristotle's category construction is arbitrary or not, and what kind of treatment Aristotle used to pursue his treatise, one could argue that the process that Owens went through is arbitrary, rather than Aristotle's process. Owens did prove Aristotle's doctrine far from arbitrary, which is useful. However, it is clear as one reads the *Categories*, and even as one reads Owens' paper, that grammar, logic and metaphysics each play a role in this treatise. Furthermore, they are all intertwined and interdependent on each other. Logic and

⁴⁴ Ibid., 19.

metaphysics are analogous to grammar, and follow grammatical rules. Although his shifts in approach can lead to some confusion, Aristotle elegantly utilizes these three major approaches to treat his doctrine.