HOW CAN WE REACH THE TRUE DEFINITION OF SOMETHING?

Essence, Definition, and Teleology in Aristole's Metaphysics

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"The ultimate value of life depends upon awareness and the power of contemplation rather than upon mere survival."

-Aristotle

INTRODUCTION

What is wisdom (*sophia*)? In Metaphysics, Aristotle says, "Clearly, wisdom is knowledge of certain principles and causes ($\dot{\eta}$ σοφία περί τινας ἀρχὰς καὶ αἰτίας ἐστὶν ἐπιστήμη, δῆλον)" (982a2).¹ For him, the task of Metaphysics is investigating being qua being, the principles and causes of being.² The inquiry into being qua being signifies the question of what a being is. What a being is and what a substance is are the same: "Namely, what is being? is just the question, What is substance?" (1028b3).³ Aristotle believes that a substance is equal to an essence: "the essence, the account of which is a definition, is said to be each thing's substance" (1017b22). The essence and the definition (*horismos*) are one in some sense: "the definition is the account of the essence" (1031a11). If the essence of a thing X is p, then the definition of X is the statement "X is p." Thus, reaching the true definition

¹ This citation from Metaphysics refers to the Loeb translation.

² Metaphysics 1003a20-27

³ All citations here and throughout this paper refer to the Reeve translation; see appended bibliography.

of something is identical to knowing what something is and can be an answer to the question of Metaphysics.

Nevertheless, there is a puzzle with Aristotle's method of reaching the true definition of something in Metaphysics. He approaches the definition of something by dividing genera and finding differentiae. However, if we follow Aristotle's system to reach the definition of something, we face the moment when it is questionable whether the definition by means of genera and differentia is the true definition. For instance, Aristotle gives a definition of a human: "A human is a featherless, twofooted animal."4 Since the definition of something is the account of its essence, if the account "a human is a featherless, two-footed animal" is the true definition of a human, the essence of a human is nothing but 'featherless and two-footed.' This is because the essence means "what something is" (1030a3). Does such a definition truly capture the essence of a human being what a human is? Although a human is the only featherless and two-footed living creature, this does not seem to be the true definition of a human. We know that what a human is goes beyond this definition by virtue of being a human. Living a human life is more valuable than just surviving as one of the animals. Therefore, this definition is the mere taxonomic definition. This definition does not express a vivid human life.

Hence, we should know how to find the true definition of something in order for us not to remain as a merely featherless, two-footed animal. Unfortunately, Aristotle does not give us any suggestion of how we can overcome this issue. Unless we know the solution to surmount this problem with Aristotle's method, we may not reach the true definition of something. If we cannot reach the true definition of something, then we cannot know its true essence. This is a significant problem for Aristotle, who seeks knowledge of what it is in Metaphysics.

However, there is a way of reconciling the method of reaching a taxonomic definition and a true definition. This is the aim of this paper. We will not dismiss Aristotle's method of dividing genera and finding differentia. Instead, we will interpret the true meaning of the ultimate differentia in this paper. This interpretation of the meaning of the ultimate differentia will guide us towards the true definition of something. Hence, the ultimate goal of this project is to find the true meaning of the ultimate differentia of something, supplement Aristotle's method of division, complete his unfinished project, and reach its true definition.

OVERVIEW

In order to achieve this aim, we will proceed in three parts. In Part 1, we will investigate what a definition is and how Aristotle approaches the definition by means of genera and differentiae. Using this method, Aristotle defines a human as 'a featherless, twofooted animal.' However, it is questionable whether this is the true definition of a human due to two reasons. Therefore, we will articulate why this is not the true definition of a human and begin to look for a solution. In Part 2, we will attempt

⁴ Metaphysics 1037b34

to rectify this issue by showing that the ultimate differentia (*teleutaia diaphora*) of something, is, in fact, the same as the end (*telos*), which lies at the heart Aristotle's theory. In Part 3, we will attempt to reach the true definition of something by reconciling Aristotle's method with its ultimate differentia (*telos*).

PART 1: DEFINITION OF GENERA AND DIFFERENTIA

What is a definition? The definition of something is the account of its essence. Aristotle says, "For the essence is just what something is ($\delta \pi \epsilon \rho \gamma \dot{\alpha} \rho \tau i \dot{\epsilon} \sigma \tau i \tau \dot{\sigma} \tau i \dot{\eta} v \epsilon \tilde{l} v \alpha I$)" (1030a3). Thus, if we ask the question "what is a human?" then the answer to this question would require the essence of a human. Nevertheless, what does he mean by "what something is?" Let us look at another explanation for the essence to have a better grasp of it. Aristotle describes the essence as what it is said to be intrinsically:

The essence of each thing is what it is said to be intrinsically. For the being for you is not the being for musical. For you are not intrinsically musical. [Your essence], therefore, is what you are [said to be] intrinsically. (1029b14-15)

You can be musical. However, you do not need to be musical. You can still be you without being musical. Being musical is not necessary for being you. Therefore, it is accidental. However, let us assume that there is some characteristic p essential to being X. Since to be p is necessary for X, X cannot be X without it. Hence, the essence of each thing is that which is necessary to being it. Thus, it appears that the definition of a thing is the account of what is necessary to being it.

Then, what is the account (*logos*)? The Greek word ' $\lambda \delta \gamma o \zeta$ (*logos*)' means speech or thought. Thus, the definition of something is the speech or thought of its essence. However, what we want to know is the essence of something (or what something is), since the main task of Metaphysics is the investigation of what something is. In that case, why do we need speech? The reason may be that the essence of a thing does not belong to us; it belongs to the thing itself. Thus, if we want to relate to and understand a thing, we need some mediator between it and us. It is the speech (*logos*) that belongs to us and expresses our understanding of it.⁵ Thus, the definition belongs to us since a definition is a kind of an account. We come to the essence by means of a logical procedure of our language. And since an account consists of a subject and a predicate that states an attribute of the subject, the definition also has a linguistic structure composed of a subject and a predicate. Hence, since the definition of a

⁵ In On the Soul, Aristotle explains in detail how we cognize and understand a sensible object logico-linguistically. When we perceive (asishmesthai) a sensible object, imagination (phantasia) works. Because of imagination, a mental image (phantasma), the sensible form of a sensible object, is presented to us (427b20). And then, our thinking capacity, the mind (now), thinks this mental image, inhinking (noeō) is the process in which the mind in the active sense makes the mind in the passive sense actually identical with the objects of thought (430a14-17). When we think a thing, we make the notion of it. When we try to understand an object, we combine notions and make an account such as "S is P." Therefore, our understanding of the world is intertwined with our account. The account of something expresses our understanding of it. (This footnote refers to the Loeb translation.)

thing is the account of its essence, the definition is the linguistic expression of that which is necessary to its being.

If the definition consists of a subject and a predicate, what kind of thing can be the subject of a definition? In other words, what can we define? In Metaphysics, Aristotle deals only with substance (*ousia*) for the definition of something: "It is clear, therefore, that only of substance is there a definition" (1031a1). Therefore, only substance can be situated in the subject of the definition. What, then, is a substance?⁶

In his early book *Categories*, Aristotle divides a substance into two groups: particular objects and species.⁷ Individual things (tode ti; a "this something"), such as an individual man, are substances. And species (a human) and the genera of these species (an animal) are also substances. This shows us that Aristotle thinks that both a particular substance (say, Socrates) and a species (say, a human) or the genus of a species (say, an animal) can be a substance in a broad sense.

Nevertheless, Aristotle thinks that not all substances are proper candidates for the subject of their definitions. Of substances, we can only define a species. The definition is the account of the essence. Only things that are species of a genus have an essence: "Hence the essence will belong to things that are species of a genus and to nothing else" (1030a11-12). Therefore, only the species of a genus have their definitions.⁸

How, then, does Aristotle express the essence of something in the predicate of its definition? The subject of the definition of something is a species, so the predicate of its definition must be its genus and its differentiae. This is made clear by the fact that he says a species is a genus plus differentiae: "the species are composed of the genus and the differentiae" (1057b7). Undoubtedly, he expresses the account of its essence with its genus and its differentiae:

⁶ What is a substance? This is an extremely complicated question to answer since his explanations of a primary substance and a secondary substance in Categories and Metaphysics are different. First, concerning a primary substance, in Categories, Aristotle explains that primary substances are particular objects (tode ti; a this something). In contrast, Aristotle asys that the what-it-is (*to ti esti*) is primary in Book Z1 of Metaphysics (1027a14). Why are they different? The simplest hypothesis I can make is that, in Categories, he thinks that tode ti is primary, but in Metaphysics, he divides tode ti into matter (*hyle*) and form (*eidos*). By dividing tode ti into matter (*hyle*) and form (*eidos*), he thinks the what-it-is (*to ti esti*) is primary. Second, pertaining to a secondary substance, in Categories, Aristotle says that a species or the genera of a species are secondary. But in Metaphysics, species are regarded as form (*eidos*). However, he thinks that form is primary in Metaphysics. There would be more complexities related to what a substance is. Nevertheless, this is not our main project in this paper. What we want to know here is what can have a definition. Therefore, with the question of what a substance is, we will merely think that a substance is that which exists (being) such as 1) movable and perishable things in the sub-lunar level (animals or cups), 2) movable and eternal things (planets), and 3) something immovable and eternal (the prime mover). (1069a29-33, Metaphysics) 7 Categories 2a13-18.

⁸ Why does Aristotle think that there is no definition of a particular and perceptible substance? There are two reasons. First, an account does not admit the generation or destruction of something, (1039b23-30, Metaphysics) Perceptible and particular substances have matter. Substances have matter. Substances have more to be and pass away. However, an account only outlines whether something is or is not. Therefore, there is no definition of perceptible and particular substances. For instance, Socrates is a particular generative are subject itself should not be present in the predicate of its definition. (1029b18-20, Metaphysics) The predicate of a definition. Second, a subject itself should not be present in the predicate of its definition. (1029b18-20, Metaphysics) The predicate of a definition should explain its subject without using the subject in the predicate. For example, we should not say that the definition of a cup is "a cup is a cup that is . . ." However, if we attempt to define a particular object, we will violate this rule. For instance, let us try to reach the definition of this cup. Its definition would be something like "this cup is a cup which is here." This disobeys the rule that a subject itself should not be present in the predicate. In addition, Aristotle also excludes the possibility of the definition of the genus of a species since the genus of a species since the essence. Nonetheless, we can see that we define an animal as a perceptual living thing, for instance. It seems that, for Aristotle, we can give a definition of genus, but when we do this, we do not truly work on the question of what it is.

We should first investigate definitions that are by division. For there is nothing else in the definition except the genus that is mentioned first and the differentiae; the other genera are in fact the first one along with the differentiae combined with it. (1037b28-30)

By dividing genera, Aristotle finds the definition of something. First, he discovers the genus of something and then finds the differentiae combined with the genus. For instance, Aristotle offers "a human is a featherless, two-footed animal" as a definition.⁹ In this definition, a species (a human) is the subject, and the genus (animal) and the differentiae 'two-footed' and 'featherless' are predicated of it.

Nonetheless, before we try to follow how Aristotle reaches this definition, we should understand what a genus and a differentia are. The genus of something is the common thing of what are distinct in species:

> What is distinct in species is distinct from something, in something, and this latter thing must belong to both—for example, if an animal is distinct in species [from another], then, both are animals. Hence [two] things that are distinct in species must be in the same genus. For this is the sort of thing I call a genus, that by reference to which both things are said to be one and the same, and which is not coincidentally differentiated, whether as matter or otherwise. (1057b34-1058a1)

If we interpret the first sentence as "what is distinct in species (A) is distinct from something (B), in something (C)," we know that A and B are distinct in species, but both A and B belong to C. Then, C is the genus of A and B. For example, a human (A) and a horse (B) are distinct in species. However, the common thing they share is their genus (C). Both a human and a horse belong to the genus of animals (C). Therefore, animal (C) is the genus of a human (A) and a horse (B).

In addition, a differentia is what makes the difference between A and B:

This differentia, therefore, will be a contrariety (as is also clear from induction). For all things are divided by opposites, and it has been shown that contraries are in the same genus. For contrariety was seen to be complete difference, and all difference in species is difference from something, in something, so that this latter thing is the same for both and is their genus . . . Hence the differentia is a contrariety. (1058a8-16)

If we consider the differentia 'two-footed,' then between a human and a horse, a human is two-footed, but a horse is not. Therefore, this differentia makes a distinction between them within the genus "animal."

⁹ Metaphysics 1037b12

So far, we have investigated what a definition is and what we can define in Metaphysics. The definition of something is the account of its essence. The subject of a definition is a species, and the predicate expresses its essence. Aristotle thinks that he can logico-linguistically express the essence of a species with its genus and its differentia and reach its definition. He does this by the method of division and classification.¹⁰ He proceeds from genus to species by dividing genera and finding differentiae. Accordingly, let us attempt to find the definition of a human using his method in order to understand the problem with his method.

The initial task is to find its genus. Of things that exist in the universe, some are natural, and others are artificial. A human certainly belongs to the natural things category. Aristotle says that natural things are simple bodies, such as earth, fire, water, and air, and living bodies, such as plants and animals.¹¹ Among natural things, a human is an animal. Therefore, a human is placed under the genus of animals. Since the genus of animals is the proximate genus of a human, we know the genus of a human. However, under the genus of animals, there are innumerable species (say, a horse, a bird, a dog, a whale, etc.). Thus, to proceed from genus to species, we should find the differentiae of a human. Among animals, some are 'footed,' and others are not. A human belongs to footed animals. Of footed animals, some are 'two-footed,' and others are not (say, 'four-footed'). A human has two feet. Therefore, a human is a two-footed animal. Nonetheless, there is still an abundance of two-footed animals: all types of birds, as well as humans, qualify as two-footed animals. We require more differentiae. How about 'feathered? The contrariety of 'feathered' is 'featherless.' A human does not have feathers. Therefore, a human is a featherless, two-footed animal. Is there another featherless, two-footed animal? If so, we should find another differentia. However, a human is the only featherless, two-footed animal. Hence, this is the definition of a human by means of genera. The diagram below shows the journey of this division.



¹⁰ 1037b29

¹¹ Physics 192b9-10

We have followed the way in which Aristotle expresses the essence of a species by finding the most specific genus and differentiae. As a result, we have reached the definition of a human: A human is a featherless, two-footed animal. This definition sounds plausible. No one would deny it. The differentiae 'featherless'¹² and 'two-footed' are unquestionably essential characteristics of a human. A human is intrinsically 'two-footed' and 'featherless.' A human is the only animal having the differentiae 'featherless' and 'two-footed' together. Therefore, this definition is exclusive to a human being.¹³ However, is this definition satisfactory? The definition of something is the account of its essence. Does this definition capture the essence of a human quite well? We can be satisfied with this definition if we regard ourselves nothing but featherless, two-footed animals! However, we are not satisfied with the definition "a human is a featherless, two-footed animal" for two reasons.

First, the combination of the differentiae 'featherless' and 'two-footed' are not what makes us humans in a positive sense even though these differentiae may set us apart from all other animals. In other words, these qualities express not what we ourselves are intrinsically but what other animals are not. Aristotle says that the essence (to ti en einai; 'the-what-it-was-to-be') is the cause: "It is evident, accordingly, that we are inquiring into the cause. This is the essence, logico-linguistically ($\varphi \alpha \nu \epsilon \rho \delta \nu$ TOÍVUV ότι ζητεῖ τὸ αἴτιον (τοῦτο δ' ἐστὶ τὸ τί ἦν εἶναι, ὡς εἰπεῖν λογικῶς))" (1041a27). What is the cause of a thing X? This question is the same question as "what causes X to be X?" The answer is the essence of X. Since the essence of X belongs to X, X is X. If the account "a human is a featherless, two-footed animal" is the true definition of a human, then the essence of a human is the combination of the differentiae 'featherless' and 'two-footed.' It means that because of these differentiae 'featherless' and 'two-footed,' we are humans. Is it because "featherlessness" and "two-footedness" belong to me that I am a human being? Definitely not; we know that what a human is goes beyond this definition. What is it to be a human? To live a human life is not just to exist as a creature which has no feathers and has two legs. Although the differentiae 'featherless' and 'two-footed' seem to be essential components for a human because a human can move owing to two feet, these two essential qualities do not seem to make a human a human. How can we capture what it is to be a human in the definition of a human that Aristotle suggests?

Without capturing the essence of something, it is hard to say that we know what it is. Knowing what it is means that we know its essence and have reached its true definition. Therefore, if the differentiae of something do not capture its essence, it is unlikely that we know what it is and have reached its true definition.

¹² It is strange to say that 'featherless' is essential for a human being. How can we talk about some non-existent qualities? We should say what a human has instead of saying what a human does not have. We will look into this problem in a few paragraphs.

¹³ In fact, there are some other 'two-footed, featherless animals,' such as kangaroos and Tyrannosaurus Rex, although I assume that Aristotle is not aware of them in his life, unfortunately.

The second reason why the definition reached by genus and differentiae is insufficient is that the essence of something cannot be changeable, but the combination of essential differentiae seems subject to change. There are still copious differentiae that are essential characteristics of a human. A human is a 'vertebrate.' A human is 'warmblooded.' A human is 'two-handed.' If we begin the task of defining a human with another differentia, we will reach another definition of a human being. For instance, let us try to find the definition of a human with the differentia 'vertebrate.' We know the genus of a human is an animal. We can divide animals into 'vertebrates' and 'invertebrates.' A human is a 'vertebrate.' There are innumerable vertebrate animals. We can break them down into 'warm-blooded' and 'cold-blooded.' Since a human is 'warm-blooded,' the tentative definition of a human is a warm-blooded, vertebrate animal. However, we know that there are a lot of warm-blooded, vertebrate animals. From this, we can add the previous example—'featherless' and 'two-footed'—to the definition we have reached in this paragraph. Then, at the end of this process, the definition of a human is a featherless, two-footed, warm-blooded, vertebrate animal.

This shows that we will sometimes define a human as a featherless, two-footed animal, and at other times we will define a human as a featherless, two-footed, warmblooded, vertebrate animal. Hence, the definition of something changes whenever we find another differentia. Indeed, Aristotle himself is aware of the problem with his dichotomous method in his book Parts of Animals:

Now if man was nothing more than a cleft-footed animal, this single differentia would duly represent his essence. But seeing that this is not the case, more differentiae than this one will necessarily be required to define him; and these cannot come under one division; for each single branch of a dichotomy ends in a single differentia, and cannot possibly include several differentiae belonging to one and the same animal. It is impossible then to reach any of the ultimate animal forms by dichotomous division. (644a7-13, Parts of Animals)

The differentiae can be changed because one and the same genus can be dichotomously divided in many different ways. He thinks that there is no single definition of an animal species. How can the essence of something change depending on the method of differentiation? How can sometimes 'featherless and two-footed' make a human be a human and other times 'featherless, two-footed, warm-blooded, vertebrate' make a human be a human?

If the essence is unchangeable, the essential differentia should also be unchangeable. However, the combination of essential differentiae seems to be changeable insofar as we can swap out one differentia for another. Why does this problem occur? We do not have a way to guide us among these decisions. We do not have a basis from which to decide because they both capture essential qualities. Therefore, even if we follow the methodical dichotomous division of the genus, we might run into problems. For example, consider that we want to define a cup. The genus of a cup is 'vessel.' However, both a house and a cup can be considered to be vessels. Now, we need a differentia to distinguish them. A house is 'doored.' In contrast, a cup is 'doorless.' According to Aristotle's method, we find ourselves in a position of saying that a cup is a doorless vessel. We know that a door never has anything to do with a cup. Similarly, though it is supposedly a "featherless, two-footed animal," a feather does not have anything to do with a human at all. Why do we consider some feature that does not apply to us as essential? How can something that we do not have make us what we are? By following the method of differentiation, we find ourselves including in the definition essential qualities that are lacking in the species and that have no relevance to a human and a cup. Hence, even in the most careful application of Aristotle's method, we still reach a definition that includes arbitrarily chosen differentiae.

So far, we have seen the reasons why the account "a human is a featherless, twofooted animal" is not the true definition of a human. The combination of the essential differentiae of X might not make X be X. It is true that the combination of the essential differentiae of X may tell us that X is different from any others due to the combination of the essential differentiae of X. However, it does not mean that these qualities signify what X itself is intrinsically. It only tells us what others are not. In addition, the arbitrariness of this method makes it vulnerable for us to reach the true definition.

Unless we know the essence of something, it is unlikely that we reach the true definition of something. We might have to be satisfied with a mere taxonomic definition: "what definitions are like" (1038a35) while we pretend to think we know the essence of something. Therefore, in Part 2, we will find a solution to overcome this problem.

PART 2: THE ULTIMATE DIFFERENTIA (TELEUTAIA DIAPHORA) IS THE END (TELOS)

In Part 1, we attempted to understand what a definition is, what we can define, and how Aristotle reaches the definition of something by the method of division. However, this method is not enough to capture the essence of something. To overcome this problem and reach the true definition of something, we need to consider the ultimate differentia (*teleutaia diaphora*). As Aristotle presents it, the ultimate differentia is the one that cannot be further divided. For instance, when we define a human as a featherless, two-footed animal, we divide animals with the first differentia 'twofooted' and the second one 'featherless.' Then, we reach a point in the procedure at which it becomes impossible. Nevertheless, it seems to me that the more significant feature of the ultimate differentia is its aptitude for capturing the essence of a thing. Therefore, the goal of Part 2 is to investigate how to arrive at an ultimate differentia that is not arbitrary but that reliably captures the essence of the thing.

If we know the ultimate differentia of something, we will reach its satisfactory definition. Aristotle thinks this is the correct procedure to follow: "Thus it is evident that the definition is the account composed of the differentiae, or, if it is in accord with the correct procedure, the ultimate one" (1038a28-30). Without knowing the ultimate differentia of something, we might get lost in the labyrinth of the differentiae and not be able to find its true definition.

Aristotle suggests that the ultimate differentia will be the form and the substance: "If, then, we take a differentia of a differentia, one differentia—the ultimate one (*teleutaia diaphora*)—will be the form (*eidos*) and the substance (*ousia*)" (1038a24-25). This is the only clue we can use in order for us to reach the true definition of something. Hence, the aim of Part 2 is to understand that the ultimate differentia of something is its end (*telos*) by utilizing this hint. Because Aristotle says that the ultimate differentia is the form and the substance, the exploration of the form (*eidos*) and substance (*ousia*) is our primary task.¹⁴

Then, what are the form and the substance?¹⁵ Aristotle thinks that form and the substance are the same: "And by form I mean the essence of each thing and the primary substance" (1032b1). And we have seen that the primary substance is the what-it-is.¹⁶ The essence of each thing is what it is. Therefore, the form is the same as the substance. In addition, he says that the form and the substance are the activity: "So it is evident that the substance and the form are activity ($\omega \sigma \tau \epsilon \, \varphi \alpha \nu \epsilon \rho \delta \nu \, \delta \tau i$ oùoía kai tò $\epsilon i \delta o \varsigma \, \epsilon \nu \epsilon \rho \gamma \epsilon i \delta \, \epsilon \, \delta \tau i$). Therefore, since the ultimate differentia is the same as the form and the substance, and the form and the substance are the substance are the same as the form and the substance, and the form and the substance are the same as the form and the substance.

Then, what is the activity (*energeia*) of something? Aristotle says, "the activity is the end ($\tau \epsilon \lambda \circ \varsigma \delta$ ' $\dot{\eta} \epsilon v \epsilon \rho \gamma \epsilon \iota \alpha$)" (1050a9). And the end is the characteristic activity of a thing. It is that activity for-the-sake-of-which something is, without which it would not be what it is. Then what is the end (*telos*), or that for-the-sake-of-which?

¹⁴ Indeed, this direction is reasonable. The definition is the account of the essence. In fact, Aristotle says that the essence belongs to the form and the activation: "Since the essence belongs to the form and the activation (τὸ γὰρ τí ἦν εἶναι τῷ είδει καὶ τῇ ἐνεργεία ὑπάρχει) «(1043b1). Thus, if we know the form and the activation of something, we immediately come to know its essence. Since the ultimate differentia of something is its form and substance, and since our project aims to know what the ultimate differentia of something is, this is the correct path toward its true definition to investigate the form, the activation, and the substance.

¹⁵ We do not undertake a deep investigation of the meanings of the form (*eidos*) and the substance (*ousia*). Remember that Part 2 of this paper aims to understand that the ultimate differentia (*teleutaia diaphora*) and the end (*telos*) are the same. The deep exploration of these terms will distract the big picture.

^{16 1028}a14.

The end, and this is the for-the-sake-of-which—for example, of taking walks health is the end. For why does [he] take walks? "In order that he may be healthy," we say. And in speaking that way we think we have presented the cause. Also, anything, then, that comes to be as an intermediate means to the end, when something else has started the movement: for example, in the case of health, making thin, purging, drugs, or instruments, since all these are for the sake of the end, although they differ from each other in that some are instruments and others works. (1013a33-1013b3)

The end of something or some action is that for-the-sake-of-which. Why does he take a walk? Or what is the function of him taking a walk? The end of taking a walk is health. Why does he make himself thin? Or what is the purpose of making himself thin? To be healthy. Why does he take drugs? To be healthy. All the instruments and actions here have an end, which is health. This is because when we ask a question about instruments or works with the interrogative 'why,' one type of answers uses "for."¹⁷ Why do you eat? For health. Why do you work? For making money or for serving the society. Hence, since the ultimate differentia is the activity, and since the activity and the end are the same, the ultimate differentia is the end. For instance, let us consider a cup. The end of a cup is to contain liquid. Then, the ultimate differentia of a cup is 'containing liquid' and 'containing non-liquid (say, solids).' We know that a cup is for containing liquid. Therefore, the ultimate differentia of a cup is its end.

So far, we have demonstrated that the ultimate differentia (*teleutaia diaphora*) of something expresses its end (*telos*). In order to grasp the entire demonstration in the simplest way, let us look at its summary in a Euclidean way:

"The ultimate differentia (*teleutaia diaphora*) is the form (*eidos*) and the substance (*ousia*)" (1038a25).

"The substance and the form are activity (energeia)" (1050b1).

"The activity (energeia) is the end (telos)" (1050a9).

The ultimate differentia (teleutaia diaphora) is the end (telos).

This shows us that Aristotle's terms 'the ultimate differentia (*teleutaia diaphora*)', 'the form (*eidos*)', 'the substance (*ousia*)', 'the activity (*energeia*)', 'the end (*telos*)' are the same. Therefore, the ultimate differentia of something is the same as its end.

At the end of Part 1 of this paper, we have seen the necessity of overcoming the problem with Aristotle's method. Hence, we have looked for the possibility to surmount this issue in Part 2. Finding a solution begins with the fact that the ultimate differentia of something is the same as its form and its substance (or essence).¹⁸ We

¹⁷ Physics 198a15-2

¹⁸ It is safe to say that the essence and the substance are the same in that both signify "what something is."

have figured out that the ultimate differentia of something is eventually the same as its end (*telos*). Indeed, Aristotle claims that the essence of something and its end are the same: "What a thing is and its purpose are the same (TÒ μ èv yàp Tí ἐστι καὶ TÒ OŪ ἕνεκα ἕν ἐστι; the literal translation is "the essence and for-the-sake-of-which are the same")" (198a25, Physics).

Now, the procedure by genus and differentia that leads to the definition "a human is a featherless, two-footed animal" is like the process that we would use. However, this is not the complete version of this process. Indeed, Aristotle seems to acknowledge that this is not the perfect procedure for the true definition of something at the end of Z 12: "Where definitions by division are concerned, then, let this much suffice as a first statement as to what they are like" (1038a35). Here, Aristotle seems to be suggesting that though this definition serves as an example as to how one might proceed by division, he is not necessarily asserting the given definition to be complete.

Nevertheless, we will not dismiss this procedure entirely. Instead, since we now know that the ultimate differentia of something is its end, we will rely on a method like genus and differentiae, but we will involve a teleological ultimate differentia.¹⁹ Therefore, let us continue on to see whether we can fully capture the essence by finding the ultimate differentia: that is, *telos*.

PART 3: THE DEFINITION OF MEANS OF GENERA AND THE END (TELOS)

In Part 1, we figured out the reason why we cannot reach the true definition of something. The cause of the problem is that we bifurcate the genera and species without knowing the ultimate differentia of something. Therefore, in Part 2, we have made an effort to know what the ultimate differentia of something is. The answer is that the ultimate differentia of something is its end. Therefore, finding out the ultimate differentia involves not just finding a feature that obeys contraries, but finding a purposive division under the genus. Now, we should assess whether we can reach the true definition of something when we know its end. This is the aim of Part 3.

Let us imagine an example. Your friend asks, "What is the purpose of a house?" We may say that the purpose of a house is to shelter property and bodies. This is the activity of a house:

That is why of [1] those who give definitions, . . . [2] Those, on the other hand, who propose that it is a receptacle to shelter property and bodies, or something else of that sort, are speaking of the activation (*energeia*). . . For

¹⁹ See Page 18 or 1038a28-30.

it seems that [2] the account that it is given in terms of the differentiae is of the form (*eidos*) and the activation (*energeia*). (1043a13-19)

The activity of a house is the same as its purpose. Since we know the purpose of a house, we know what a house is, and we can reach its true definition: "A house is a receptacle (or vessel) to shelter property and bodies."

Therefore, if we know a thing's end, we can reach its true definition. However, as stated above, this does not reject Aristotle's method of division and classification. The only difference is that we do not divide the genus with arbitrary bifurcations. We add the ultimate teleological differentia to his method. For example, let us define a doctor with Aristotle's method and the ultimate differentia. The end of a doctor is to cure patients. With the method of genus and differentia, the genus of a doctor is a profession. The ultimate differentia of a doctor is to cure or not to cure since this is the end of a doctor. Therefore, the true definition of a doctor is that a doctor is a professional who cures patients. Likewise, let us define a cup. The genus of a cup is a vessel. This is because there are many types of vessels, so that vessel is not a species but the genus of a cup. Since we know the genus of a cup, if we know its ultimate differentia, we can reach its true definition. The ultimate differentia (the end) of a cup is to contain liquid. Thus, its true definition is a vessel that contains liquid.

So far, all the examples we have examined are artefacts. Since we create them with our craft, we certainly know the end of them. We are the efficient cause of artificial things. We are builders who build a house or a cup. If we do not know the purpose of a house or a cup, it is impossible to make them. Hence, we can reach the true definition of artificial things since we know their purposes.

Nevertheless, let us finally attempt to reach the definition of a human. If we know the end of a human, then we can reach its true definition. What is the end of a human? Let us attempt to find it in a two-fold manner if we can.

On the one hand, Aristotle suggests that knowledge is our end: "All humans by nature desire to know" (980a21). This is possible because a human has reason (*logos*). This is the most fundamental difference between humans and other living creatures: "Man alone among the animals has speech ($\lambda \dot{0} \gamma o \nu \delta \dot{\epsilon} \mu \dot{0} \nu o \nu \ddot{\alpha} \nu \theta \rho \omega \pi \sigma c \ddot{\epsilon} \chi \epsilon I T \vec{\omega} \nu \zeta \dot{\omega} \omega \nu$)" (1253a10, Politics). A human can think (*noeo*), understand (*phroneo*), and judge (*krino*). Thanks to this faculty, we naturally pursue knowledge. What do we want to know? We experience the world and understand it. However, a human's desire to know does not merely signify knowledge of phenomena–that is, knowledge that "the ball I grab falls down to the ground when I unfold my hand" or "the sky is blue." We want to know "why?" What causes these things? What is the cause of phenomena? The primary starting-points and causes are what we want to know. This is our activity (*energeia*). This is our goal (*telos*). Therefore, a human being is for thinking.

On the other hand, in Nicomachean Ethics, Aristotle suggests that happiness is the final end of a human: "So happiness appears to be something complete and self-sufficient, it being an end of our actions" (1097b20). In Book 1 of Nicomachean Ethics, Aristotle thinks that happiness is an activity of soul in accord with virtue:

...if this is so, then the human good becomes an activity of soul in accord with virtue, and if there are several virtues, then in accord with the best and most complete one (εἰ δὴ οὕτως, ἀνθρώπου δὲ τίθεμεν ἕργον ζωήν τινα, ταύτην δὲ ψυχῆς ἐνέργειαν καὶ πράξεις μετὰ λόγου, σπουδαίου δ' ἀνδρὸς εὖ ταῦτα καὶ καλῶς, ἕκαστον δ'εὖ κατὰ τὴν οἰκείαν ἀρετὴν ἀποτελεῖται). (1098a16-18, Nicomachean Ethics)

Happiness is an activity of soul in accord with virtue. To achieve happiness, we utilize our logos (*praxeis meta logou*). By using our logos, the end of human beings is happiness. This shows us that the end (*telos*) of a human and the activity (*energeia*) work together. It seems that our happiness does not have to do with the divine being. However, Aristotle thinks that this happiness ultimately occurs with the divine being:

If happiness is an activity in accord with virtue, it is reasonable that it would accord with the most excellent virtue, and this would be the virtue belonging to what is best. So whether this is the intellect or something else that seems naturally to rule, to command, and to possess intelligence concerning what is noble and divine, whether it itself is in fact divine or the most divine of the things in us—the activity of this, in accord with the virtue proper to it, would be complete happiness. And that this activity is contemplative has been said. (1177a13-18, Nicomachean Ethics)

Our happiness ultimately belongs to the divine being. This is complete happiness. This is contemplation. We think and contemplate. This is our activity (*energeia*). We want happiness. This is our goal (*telos*). This happiness is contemplation. Therefore, a human being is for contemplating.

Both thinking and contemplating–our activity (*energeia*)–are possible because of our *logos*. Both thought and contemplation–(*telos*)–occur with the divine being.²⁰ Since the genus of a human is animal, if we accept Aristotelian teleological view, we can accurately define a human as a thinking—or rational— animal.²¹

Aristotle at various times refers to human as a rational animal, at other times as a featherless two-footed animal. We have seen two distinct definitions of a human that appear throughout Aristotle's corpus. They are not just two interchangeable definitions with equal utility. One is taxonomic, an example of what definition is

²⁰ Metaphysics 1026a15-18, 1026a28-31

²¹ One might point out that if we define a human as a political animal, it is also arbitrary. Sometimes, we define a human as a political animal. At other times, we define a human as a rational animal. It is a reasonable argument. However, it seems that for Aristotle, political activity is subordinate to rational activity. A human being takes pleasure in society and lives an ethical life because of reason. Then, one might ask again how a political life and a contemplative life can be described under the realm of the definition of a human: "A human is a rational animal." A politician is a practitioner who pursues practical wisdom. A philosopher, by contrast, pursues speculative wisdom. Insofar as both a politician and a philosopher seek wisdom with reason, both of them are rational.

like. The other one represents the achievement that can be made when we know the true end of a thing—that is, true definition. Now it gives us a model to follow in other cases and an appreciation for the difficulty of reaching definition in cases where the telos is hidden from us.

CONCLUSION

For Aristotle, the question "What is being?" is significant. This question is the same as the question "What is a substance?" This question leads us to what the essence is. Since the definition and the essence are one in some sense, if we know the essence of something, we can reach its definition. However, without knowing the ultimate differentia of something, it is unlikely for us to reach its true definition. For artifacts, we have access to the true purpose of anything that we make as humans. In addition, we are for thinking.²² So, we can reach the true definitions of artifacts and ourselves. However, for natural things other than humans, it is unclear whether we can know their purposes or not. We do not know whether our interpretation of phenomena is the same as the true end of a thing. While we experience the world, we observe the phenomena of things. We see an acorn growing up and becoming an oak tree. We think the final cause of an acorn is to become an oak tree. Even if Aristotle says that our perception of proper objects is always true,²³ does Aristotle think that we can know the ends of all the natural things? For instance, what is the unique end of the mature oak tree? It is difficult to answer. All things are ordered and related to each other, contributing to the good of the world. They contribute to the order, the beauty, and the good of the world in their own ways. ²⁴ Therefore, unless we know the order of the world, it is unlikely that we know the true end of things.

Hence, for natural things, taxonomic definitions might have to be enough. If we know their true ends, we will be happy. However, we may or may not know their purposes. So, we may know only what the definition is like. A horse, for instance, is approximately a four-legged hoofed animal, but this definition misses its essence. However, this does not mean that Aristotle's investigation of being and pursuit of wisdom in Metaphysics has failed. The mere taxonomic definition can be useful for scientists as Aristotle was a scientist who tried to understand the physical world scientifically. Furthermore, if the goal of humans is thinking and contemplating using our logos, then his task cannot be considered a failure. Thinking and knowing are not the same. We are not sure whether we can know, but we can continue to seek wisdom about, for each thing that exists, *the end*.

²² There is a possibility that Aristotle might think that not every human being is for thinking. For example, while natural slaves are humans, are they indeed for thinking? In addition, poets compose not by using reason but by inspiration. This problem led us to the question of whether we can even define a human. However, this is a wholly different matter. Although significant, we will follow Aristotle's account of the goal of a human in Metaphysics and Ethics in this essay.

²³ De Anima 427b13

²⁴ Metaphysics 1075a15-25

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