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The Meaning of *Genus* in Ancient Greek Philosophy up to Aristotle and in Thomas Aquinas

The term “genus” has several meanings in the writings of Aristotle and St. Thomas Aquinas, and the meaning of the term depends on the context in which it is used. If a reader wants to ascertain the meaning of what Aristotle and Thomas are trying to communicate within a specific context, understanding these different meanings is crucial. The understanding that most contemporary philosophers have of “genus” is the logical sense used in a definition; but a more basic metaphysical meaning exists that Aristotle and Thomas employ. This meaning is more basic because, according to Aristotle and Thomas, philosophy is more about metaphysics than about logic.¹

While its logical meaning is the one most used and understood by contemporary philosophers today, the fact is that “genus” has undergone an evolution of meaning originating in Ancient Greece. A chief aim of this paper is to trace that meaning’s history within the West, how Aristotle and Thomas came to use it, and why knowing the meta-

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¹ Cf. Jonathan Barnes, *Aristotle: A Very Short Introduction* (Oxford: Oxford University Press, 2000), 43: “Now this general study of being *qua* being is, in Aristotle’s view, the primary philosophy . . . The Greek for ‘tool’ is ‘*organon*’: that is why later Aristotelians gave the collective title *Organon* to Aristotle’s logical writings.”



physical sense of “genus” is crucial to understanding the philosophical teaching of Aristotle and St. Thomas Aquinas.

Common Literature

According to the *Liddell-Scott-Jones A Greek-English Lexicon*, the primary definition in Ancient Greek literature for “genus” (γένος) is “race, stock, or kin.”² In the *Iliad*, Homer uses the term to mean stock, as in common ancestry. “Both the twain verily were of one stock [γένος] and of one parentage.”³ The sense given here is of both coming from a common source at some time in their lineage. Similarly, Homer uses “genus” in the sense of immediate family in the *Odyssey*: “Did some kinsman of thine fall before Ilios, some good, true man, thy daughter’s husband or thy wife’s father, such as are nearest to one after one’s own kin [γένος] and blood?”⁴ In this usage, the term does not always have the same sense as generation from common ancestry, but it refers to a relationship that is born of family, of the union of a husband and wife. So, the spouses are kin, also.

However, even considering kinship bonds forged by law like marriage and adoption, “genus” is used sometimes to distinguish between a natural born child and an adopted child. For example, in *Oedipus Rex*, the Messenger tells Oedipus that he shares no blood with

² Henry George Liddell, Robert Scott, *A Greek-English Lexicon*, revised and augmented throughout by Sir Henry Stuart Jones with the assistance of Roderick McKenzie (Oxford: Clarendon Press, 1940). Available online—see the section *References* for details.

³ Homer, *The Iliad with an English Translation by A. T. Murray, Ph.D., in two volumes* (Cambridge, Mass.: Harvard University Press, 1924), 13.354. Available online—see the section *References* for details. In *Greek: Homeri Opera in Five Volumes* (Oxford: Oxford University Press, 1920), 13.345. Available online—see the section *References* for details.

⁴ Homer, *The Odyssey with an English Translation by A. T. Murray, Ph.D., in two volumes* (Cambridge, Mass.: Harvard University Press, 1919), 8.583. Available online—see the section *References* for details.

Polybus, and he uses “genus” to indicate that kind of blood relationship as opposed to the adoptive sonship he had from Polybus.⁵ So, while “genus” can be used to indicate immediate family relationships, the strictest use is that of generation from parents to children.

At times, “genus” is used to refer specifically to people who are direct descendants of a person, as opposed to those who have a collateral relationship (like brother and sister). In *Ciron* by Isaeus, written around early 4th century B.C., it is argued that a man’s daughter is nearer kin to him than his brother because the daughter is issued directly from him, as opposed to the brother who merely shares a common stock.⁶ In fact, this passage argues further that even the daughter’s children are closer of kin than the brother who is merely of the same stock. In other places, “genus” is used to mean “common stock,” as in the example from Homer’s *Iliad* referenced above. The term is used in different ways to refer to family relationships, but the strictest use implies direct offspring.

Another common usage is simply to refer to a class, sort, or variety. For example, in his treatise *On Hunting*, Xenophon uses the word “genus” to refer to two different varieties of dogs.⁷ This sense refers to a particular group of specific objects. In this case of types of dogs, it carries some notion of common ancestry, but the Greeks did not have an idea of the common ancestry that we get from modern theories of evolution. So, one variety of dogs does not necessarily have a single

⁵ “ὄθούνεκ’ ἦν σοι Πόλυβος οὐδὲν ἐν γένει” (Sophocles, *Oedipus Tyrannus*, 1016, in *Sophocles*, vol. 1: *Oedipus the King, Oedipus at Colonus, Antigone*, with an English translation by F. Storr [London, New York: William Heinemann Ltd.; The Macmillan Company, 1912]. Available online—see the section *References* for details).

⁶ Isaeus, *Ciron*, 33, in *Isaeus with an English translation by Edward Seymour Forster* (Cambridge, Mass.: Harvard University Press, 1962.). Available online—see the section *References* for details.

⁷ “τὰ δὲ γένη τῶν κυνῶν διττά” (Xenophon, *On Hunting*, 3.1, in *Xenophontis opera omnia*, vol. 5 [Oxford, Clarendon Press, 1920, repr. 1969]. Available online—see the section *References* for details).

common ancestor, but a variety nevertheless forms a class of its own based on their physical characteristics and their purposes (as used for hunting, for example).

The word is also related to *genesis* (γένεσις), a word meaning origin or source.⁸ So, even if “genus” is used to refer to a class of things that do not necessarily come from a common line of biological descent, the word carries with it the idea of generation. Analogously, things of the same kind have some kind of common origin, even though that commonality may not be spelled out explicitly. While the word “genus” can be used in many senses, analogously, it always refers in some way to a common origin or source.

Pre-Socratic Philosophers

The pre-Socratic philosophers, the Ancient Greek physicists, began to wonder about the fundamental structure of reality and how it is possible for things to change. What was staying the same? What was changing? How can there be any one thing and yet many things? Based on their wonder at the world, these philosophers started a way of thinking about the world that asked questions about a different kind of generation. They were concerned about how new biological lives were brought into being, and they wanted to know how all things that come to be and their changes are generated. They began to delve into the first principles of things.

This new search gave *genos* (γένος) a new context for use. In looking at the nature of the coming to be, remaining, and passing away of any particular thing, *genos* applies to anything that has a common cause, just as the term had traditionally referred to people or animals of a common parentage. Two things that have a common cause can be

⁸ Liddel, Scott, *A Greek-English Lexicon*.

regarded analogically to be “kin” or “of common stock.” The grand prize of the pre-Socratics was to be able to identify the universal cause of all things, which they variously identified as different things. In searching into these fundamental causes, the pre-Socratics opened up science and philosophy, which, at the time, these philosophers considered to be identical.⁹

In opening his discussion of the pre-Socratics, Aristotle states the importance of examining their ideas to see whether they identify the same primary causes he has been talking about. He uses the term *genos* (γένος)¹⁰ in reference to “some other kind of cause,”¹¹ which they may have identified. *Genos* is translated specifically as “kind” in this case, and we already see that this kind of thing is different from the traditional usage of “kind” that referred to living things that were related to each other biologically. The causes or primary principles that Aristotle goes on to identify with each of the pre-Socratics include material elements such as water, air, fire, and the infinite. Aristotle was referring to any of these as a “kind” (*genos*) of cause.

Shortly after that, Aristotle used the related word *genesin* (γένεσιν),¹² which is translated as “generation.”¹³ In this context, Aristotle refers to those pre-Socratics who were skeptical of generation and corruption of any kind if the primary cause of all things was a single

⁹ See Peter A. Redpath, *Wisdom's Odyssey from Philosophy to Transcendental Sophistry* (Amsterdam and Atlanta: Editions Rodopi, 1997), 1–62.

¹⁰ Aristotle, *Metaphysics*, 983b5, in *Aristotle's Metaphysics*, ed. W. D. Ross (Oxford: Clarendon Press, 1924). Available online—see the section *References* for details.

¹¹ Aristotle, *Metaphysics*, 983b5, in *Aristotle in 23 Volumes*, vols. 17–18, trans. Hugh Tredennick (Cambridge, Mass.: Harvard University Press; London: William Heinemann Ltd., 1933, 1989). Available online—see the section *References* for details.

¹² Aristotle, *Metaphysics*, 984a30, in *Aristotle's Metaphysics*.

¹³ Aristotle, *Metaphysics*, 984a30, in *Aristotle in 23 Volumes*.

material. “Generation” refers to the generation of anything and everything, not just biological generation.¹⁴

Heraclitus (535–480 B.C.) uses the term *genos* in the broader common sense of “race” when he says that, “The most beautiful of monkeys is ugly compared with the race of man.”¹⁵ Even though this common usage remains in the prose of the Heraclitus, the new, more philosophical usage shows up in Fragment 76. The translation reads, “Fire lives the death of air, and air lives the death of fire; water lives the death of air, earth that of water.”¹⁶ The term translated as “lives” is the closely related to the terms *genos*, *genesin*, which could also be translated as “is generated from” or “is caused by.”

While the translator might have been looking to reproduce the poetic character by juxtaposing the life of one thing and the death of the other, an unmistakable metaphysical sense is present. Because the distinction between these two divisions of science had not been clearly made, Heraclitus was not necessarily thinking in terms of metaphysics as opposed to physics. At the time of the pre-Socratic philosophers, philosophy and what we call science were part of one endeavor to find out about the fundamental principles of things and the causes of sameness and change.

In the above passage, Heraclitus is attempting to describe the causes of each of the elements. This kind of generation is different from biological and familial generation. In particular, Heraclitus claims that

¹⁴ I will give more commentary on Aristotle later, but this passage is relevant here because Aristotle uses the terms in reference to the pre-Socratics.

¹⁵ For the Greek version, see *Herakleitos of Ephesos*, fragm. 82: “πιθήκων ὁ κάλλιστος αἰσχροῦς ἀνθρώπων γένει συμβάλλειν.” Available online—see the section *References* for details. For the English version, see Plato, *Greater Hippias*, 289a, in *Plato in Twelve Volumes*, vol. 9, trans. W. R. M. Lamb (Cambridge, Mass.: Harvard University Press; London: William Heinemann Ltd., 1925). Available online—see the section *References* for details.

¹⁶ For Greek and English versions, see *Herakleitos of Ephesos*, fragm. 76, Available online—see the section *References* for details.

the elements cause each other. As one element is destroyed (“dies” in the language of the quote), another is generated. A group of things are related not because they come from the same parents, but because they have a common cause.

Parmenides (515–450 B.C.) argues for the oneness of all things and the unchanging nature of true reality. In his view, if unity and being are identical, all change is illusion. Therefore, multitudes might be real, but no real change exists; and while the many might be real, it is not being. Nothing comes to be or passes away.

The term for “generation” used by Heraclitus is employed negatively by Parmenides to say that whatever is, is uncreated and indestructible. “One path only is left for us to speak of, namely that It is. In it are many tokens that what is, is uncreated and indestructible, alone, complete, immovable and without end.”¹⁷ The word translated as “uncreated” is *ageneton* (ἀγένητον), which is the negation of *geneton*. It means essentially “without generation.”

Parmenides is saying that everything that is, is without a source and without an end; it has just always been. All beings are One. This is the opposite of what Heraclitus said about the elements causing each other, and the term related to *genos* is once again being used to refer to a level of causality beyond biological generation. Even philosophers opposed to one another have a common understanding of the term at this time.

Parmenides uses the term for generation in another passage with a similar meaning when he writes, “Justice does not loose her fetters and let anything come into being or pass.”¹⁸ The phrase “come into being” in the Greek is *genesthai* (γενέσθαι), which is related to *genos*,

¹⁷ *Poems of Parmenides*, VIII, 1–4, trans. John Burnet (1892). Available online—see the section *References* for details.

¹⁸ *Ibid.*, VIII, 13–14.

and is used here again to talk about the fundamental causes of reality, of being and nonbeing, beyond biological generation.

In another fragment, Parmenides again uses *genesis* (γένεσις), which is translated as “coming into being.”¹⁹ But this word appears as an echo of the phrase translated as “without beginning.” The Greek here is *anarchon* (ἄναρχον), the negative of *arche*, which is translated in Aristotle’s work as “principle.”²⁰

The connection between these two terms is important since they both have to do generally with beginning, cause, or starting point. Parmenides uses them to refer to the fundamental causes of existence and of changes in nature. Aristotle also uses *arche* analogously in the same kind of way he makes use of the term *genos*. Every *genos* has an *arche*; every “genus” has a principle or beginning.

In Parmenides, we see a consistent use of the terminology surrounding beginning and generation in reference to the basic principles of nature. Even as one who denies change and generation, his use of the terms consistently departs from the common usage that refers to biological descent and generation.

Empedocles (495–444 B.C.) is another pre-Socratic philosopher who began delving into the principles of the one and the many and the fundamental causes of becoming and change. He also uses the terms regarding generation to refer to nature. In Fragment 9, he talks about what “comes into being” by the mixing of the elements by means of *genesthai*.²¹ Empedocles refers to the generation of men and animals not by means of biological generation, but he talks about the generation of their very being. This is not a discussion of the descent from one

¹⁹ *Ibid.*, VIII, 27.

²⁰ Aristotle, *Metaphysics*, 1012b34, in *Aristotle’s Metaphysics* (Greek), and *Aristotle in 23 Volumes* (English).

²¹ Empedocles, *Fragments Complets*, fragm. 9. Available online—see the section *References* for details.

offspring to the next but of how things themselves come to be in the first place.

In another fragment, Empedocles writes, "It cannot be that aught can arise from what in no way is."²² The relevant word, *genesin*, appears translated here as "arise;" and, again, Empedocles is talking about the coming into being of things themselves. Here, too, generation is discussed in a way that goes beyond biological descent.

In summary, the pre-Socratic philosophers took the language of race, kind, or kin, which carried with it the notion of a common source of generation or a common cause, *and analogously applied it* to the fundamental causes of reality and the coming into being of things themselves. These philosophers were concerned with discovering the causes of the one and the many, of permanence and change.

This was a new endeavor, and so they transposed the term *genos* and its relative *genesin*, which in common language referred to heredity, into allegorical senses dealing with the heredity of the world they experienced. This set the stage for later philosophers to continue using this method of terminology in their discussions about coming to be, passing away, and organizational wholes.

Plato

Plato's philosophy in many ways is an answer to the pre-Socratics. Instead of restricting so much of causality to the material world and identifying the principle of permanence in the elements, Plato posits a world of immaterial forms, which are the source of things being what they are: permanent.

According to Plato, for people to reach an understanding of these forms and their affect on the world of experience, a lengthy education is

²² *Ibid.*, fragm. 12.

required. This education requires that society be divided up into classes so that some classes of people can concentrate their efforts on their philosophical studies, while the other classes fill other roles of society. Each class has its own job to do in the society, and it is the aim of each job that creates the class of people. In other words, the common aim generates and defines the group. It is to these new classes and groups of people that Plato applies the terminology used by the pre-Socratics to discuss the generation of things themselves.

Even though Plato uses *genos* in a new way, he also uses it in its traditional sense. For example, in the *Republic*, Plato writes,

[I]s it not apparent that its force is such that wherever it is found in city, family, camp, or in anything else it first renders the thing incapable of cooperation with itself owing to faction and difference, and secondly an enemy to itself and to its opposite in every case, the just?²³

The word that is here translated as “family” is the Greek work *genos*.²⁴ In this context, it is used to denote a specific type of relationship among kin that is distinguishable from city, camp, or anything else. This is *genos* in its common sense.

In another passage of the *Republic*, he writes, “For they say that the children’s children of the pious and oath-keeping man and his race thereafter never fail.”²⁵ *Genos*²⁶ is here translated as “race,” and so this is another example of the common usage that refers to descendants and family groups. Therefore, Plato was not ignorant of the common usage

²³ Plato, *Republic*, 1.351e–352a, in *Plato in Twelve Volumes*, vols. 5–6, trans. Paul Shorey (Cambridge, Mass.: Harvard University Press, 1969). Available online—see the section *References* for details.

²⁴ Plato, *Republic*, 1.351e–352a, in *Platonis Opera*, ed. John Burnet (Oxford, England: Oxford University Press, 1903). Available online—see the section *References* for details.

²⁵ Plato, *Republic*, 2.363d, in *Plato in Twelve Volumes*.

²⁶ Plato, *Republic*, 2.363d, in *Platonis Opera*.

of *genos*, nor did he go out of his way to avoid it, as can be seen from these two examples.

The new usage comes into play when Plato refers to classes of people with a common aim. One of the first examples in the *Republic* is this passage, "This need, then, said I, creates the class of shopkeepers in our city."²⁷ *Genos* is translated here as "class."²⁸

The need about which Plato is talking about is that created by the fact that the craftsmen and farmers may not be able to get to the market at the same time as the people who need to buy from them. The aim of the shopkeepers is to sell the goods from the craftsmen and farmers without them having to be in the market all day instead of attending to their trades. In this passage, *genos* refers to something that comes into being, but in a new sense.

In the common usage, *genos* refers to hereditary descent and family relationships, which implies the coming into being of each new generation. The pre-Socratics used the term to refer to the coming into being of reality itself and the fundamental principles of existence; but, here, Plato is referring to a group of people who are not family members, simply those who have a common aim generated by a common need of society. Since the classes of the model city play a crucial role in this work, this is not the only place where Plato uses the word in this way.

In a passage where Plato writes about the philosophers, he identifies them as "the class to which it pertains to partake of the knowledge which alone of all forms of knowledge deserves the name of wisdom."²⁹ The word translated as "class" is *genos*.³⁰ The word is here used to identify a group of people who are not necessarily family mem-

²⁷ Plato, *Republic*, 2.371d, in *Plato in Twelve Volumes*.

²⁸ Plato, *Republic*, 2.371d, in *Platonis Opera*.

²⁹ Plato, *Republic*, 4.429a, in *Plato in Twelve Volumes*.

³⁰ Plato, *Republic*, 4.429a, in *Platonis Opera*.

bers and need not be related at all, but who are identified by their common aim of partaking of wisdom. As in the case with the shopkeepers, *genos* refers to a class that has been generated by a common aim also required by the city. In this case, the city requires that the philosophers pursue wisdom so that they can rule according to the pattern of the true good, even though the philosophers themselves might rather simply enjoy the wisdom they attain. Nevertheless, a common aim generates a multitude of people identified as a *genos*.

Just prior to the above quotation, another Greek word is translated as “class” in reference to the philosophers:³¹ *ethnos* (ἔθνος),³² commonly translated as “number of people living together, company, body of men.”³³ Apparently, Plato is using the term interchangeably with *genos*, but the class to which he is referring is not just a group of people who live together. Instead, they have a common goal. Something more than mere proximity in living generates their group. This common aim gives rise to the organizational whole of the philosophers.

In Book 5, where Plato discusses the faculties and powers of the human soul, he states, “In the case of a faculty I look to one thing only—that to which it is related and what it effects.”³⁴ In particular, the discussion centers around the faculty to which the power of true knowledge ought to be ascribed. A key point to note here is that Plato is concerned primarily with the relationship between the faculty and what generates it. Each faculty has a specific relationship to a specific thing, and that is what determines the faculty.

In the context of the dialogue, Socrates asks, “Do you say that [science or true knowledge] is a faculty and a power, or in what class

³¹ Plato, *Republic*, 4.428e, in *Plato in Twelve Volumes*.

³² Plato, *Republic*, 4.428e, in *Platonis Opera*.

³³ Liddel, Scott, , *A Greek-English Lexicon*.

³⁴ Plato, *Republic*, 5.477d, in *Plato in Twelve Volumes*.

do you put it?"³⁵ The word here for "class" is *genos*.³⁶ Again, this is a usage different from what has been seen before, but related to the way that the word was used in relation to classes of people. Now, a class of things is determined by the relationship between the faculty and what it affects. Each faculty has an aim, and that sets it apart as a separate class, just as the common aim of the shopkeepers and the common aim of the philosophers determines each of those groups as a class, or "genus," of their own. Here, too, a sense of generation is involved, but in the sense that a "genus" is generated by a common aim or function of the members of the "genus." This usage is a major step in the development of the term and the philosophical meaning attributed to it later in Aristotle and Aquinas.

Aristotle

Plato's use of *genos* sets the stage for Aristotle who devotes a section of his *Metaphysics* to a discussion of the term and continues to develop the philosophical sense of the word.³⁷ Worth noting is that this is the first place where *genos* is translated as "genus," not as "kind," "class," "race," or some other such way. This makes sense because Aristotle uses it in a way such that it makes no sense to translate it as any of those other terms; and he takes the time to discuss the other definitions of it.

In Book V, Chapter 28 of the *Metaphysics*, Aristotle offers four definitions of the term *genos*. The first definition reads, "When there is a continuous generation of things of the same type."³⁸ This definition is closest to the common usage of the word that has to do with family

³⁵ *Ibid.*, 5.477d–e.

³⁶ Plato, *Republic*, 5.477d–e, in *Platonis Opera*.

³⁷ Aristotle, *Metaphysics*, 1024a29 ff.

³⁸ *Ibid.*

relations, but it would apply to different species of animals, which reproduce the same kind of thing in continuous generation. This is made clear by the example he gives of humans being a particular “genus” as long as human generation persists. To make this sense clearer, the translator in this case translates *genos* as “race.” The related word *genesin*, which means “to generate,” occurs within the definition. It is closely related to *genos* in meaning as I showed above.

The second definition is very closely related to the common usage, but differs slightly. It reads, “Of anything from which things derive their being as the prime mover of them into being.”³⁹ *Genos* is used here to refer to the source of the class, just as the ancestor is the generator of the descendants. As Aristotle’s examples show, he is still applying this concept to families and races. Ionians are called such because they are descendants of Ion; Ion is the prime mover of the Ionian race. The Greek word for “race” here is *genos*. So the term does not refer to the race of people *per se*. It refers chiefly to the originator, not to that which is generated.

Use of the word *genos* to refer to the prime mover is very close to the way the pre-Socratics began to use the term analogously from biological descendants. While Aristotle uses only examples of races of people, he does not specify in the definition that it applies only to people. This is very much like the way Parmenides employs the related term *genesin* in Fragment VIII, 27 as an echo of *arche*, which means “beginning” or “principle.”⁴⁰ The pre-Socratics were mainly after the primary causes and started using *genos* and its related terms to refer to nature, elements, and the universe. Aristotle continues this use of the term.

³⁹ *Ibid.*

⁴⁰ *Poems of Parmenides*, VIII, 27.

After giving the examples of how the plane is the "genus" of plane figures and the solid is the "genus" of solid figures, Aristotle's third definition reads, "That which underlies the differentiae."⁴¹ Of all the different plane figures, when someone is dealing with plane figures, they are dealing with a plane. The plane gives rise to the study of all of the different possible plane figures. Any study of plane figures is a study of the plane.

Thus, the plane is what unites all plane figures. This is different from the logical meaning, which Aristotle identifies as his fourth definition, because he is not simply referring to a class of things and then separating them into smaller classes based on specific differences. Instead, Aristotle is referring to the group of things by what unifies them as a proximate matter, or subject. It is the relationship among them that makes them a "genus," and the "genus" is referred to by that which unites them, "that which underlies" them all. It is the common matter.

Aristotle's fourth definition of "genus" is the one most commonly used today, the logical sense used in definitions. He writes that "in formulae the first component, which is stated as part of the essence, is the genus, and the qualities are said to be its differentiae."⁴² The *differentiae* are the qualities that separate a particular object from other members of the same "genus." So, in a definition of any species, the "genus" is mentioned first, and then the species is indicated by the differences that separate that species from the rest in that "genus." So, a rational animal is a man, because man is in the "genus" of animal; but man is different from all the animals because he is rational.

Aristotle's third definition is of most interest to the philosopher because it indicates a subject of study. It still carries with it the sense of coming into being, but it is generated by the subject being studied and

⁴¹ Aristotle, *Metaphysics*, 1024b.

⁴² *Ibid.*

the way it is being studied. The topic of study exists as a philosophical, or scientific, subject because a human being wonders about it and starts to organize his or her knowledge about it as he or she studies.

In Chapter 24 of Book V, Aristotle discusses what “something coming from something” means. The first two meanings of that phrase correspond directly with the third and fourth meanings of Aristotle’s definitions of *genos*. In fact, *genos* is used in the description of the first sense. “In one sense, to come from something as matter, and this in two ways: in respect either of the primary ‘genus’ or of the ultimate species.”⁴³ From the example Aristotle gives of everything liquefiable coming from water, it is clear that Aristotle has in mind here a material meaning; but, by analogy, this meaning can be extended to refer to the matter of a subject of study from which the subject of study comes, just as in the third sense of *genos*.

Aristotle makes this connection explicit in Book III of the *Metaphysics* in the context of discussing the content of the particular science and the nature of a demonstrative science.⁴⁴ He uses *genos* several times. He claims that, if a demonstrative science exists, that science must have an underlying “genus.” This corresponds with an analogical understanding of the “genus” being the underlying matter of any subject, as the plane is the underlying “genus” of plane figures, as in Book V, Chapter 22.⁴⁵ “To study the essential attributes connected with the same ‘genus’ is the province of the same science proceeding from the same beliefs.”⁴⁶ The “genus” is marked out as the arena in which demonstration can take place. It is a common subject matter generated by a set of common principles.

⁴³ *Ibid.*, 1023a26.

⁴⁴ *Ibid.*, 997a.

⁴⁵ *Ibid.*, 1024b.

⁴⁶ *Ibid.*, 997a.

In Book XII, Aristotle takes up the question of substances.⁴⁷ He addresses the fact that the ancients had regarded substance in terms of material because they thought that some specific material was universal. The thinkers to which Aristotle refers as “present day” regard the substance as the universal because genera are universal. The thinkers to which he refers are almost certainly Platonists, who held that the real substances are the separated Forms. Nevertheless, Aristotle is again using the word *genos* to refer to things with a common principle.

An example of this is at the beginning of the *Nicomachean Ethics* when Aristotle writes that educated people are content with the level of certainty allowed by the subject, each according to its kind.⁴⁸ The word translated as “kind” is *genos*,⁴⁹ which is used to refer to a kind of subject. Aristotle also distinguishes many different arts and sciences according to their aims, and it is the aims that bring about those different pursuits.⁵⁰ For example, Aristotle mentions that the entire science of medicine aims at health. The natural human desire for health brings about the pursuit of medicine.

In Book IV, Aristotle uses *genos* to refer specifically to a science. He writes, “Now of every single class of things, there is one perception, so there is one science. . . . Hence the study of all the species of Being qua Being belongs to a science which is generically one.”⁵¹ In this passage, Aristotle uses *genos* to refer to a class of things that be-

⁴⁷ *Ibid.*, 1069a.

⁴⁸ Aristotle, *Nicomachean Ethics*, 1094a, in *Aristotle in 23 Volumes*, vol. 19, trans. H. Rackham (Cambridge, Mass.: Harvard University Press, 1934). Available online—see the section *References* for details.

⁴⁹ Aristotle, *Nicomachean Ethics*, 1094a, in *Aristotle’s Ethica Nicomachea*, ed. J. Bywater (Oxford, England: Clarendon Press, 1894). Available online—see the section *References* for details.

⁵⁰ Aristotle, *Nicomachean Ethics*, 1094a1–6.

⁵¹ Aristotle, *Metaphysics*, 1003b.

long to the same science. The “genus” is the intellectual pursuit. The science, metaphysics in this case, is called “generically one.”

In other words, even though many different species of being may exist, they still belong to the science of metaphysics. A unity to the science exists even though it treats of different things. Aristotle uses *genos* throughout this section as he discusses the domain of a science, and this science in particular. He says that all thinkers use the principles the philosopher uses in first philosophy, but only to the extent that they need them for their particular science. They only use them “so far as the ‘genus’ extends about which they are carrying out their proofs.”⁵²

The “genus” refers to the whole of which the science consists. So, some subject like “being” may be included in a subject-genus, but only to the extent that it pertains to that subject genus, not as being itself. “Aristotle viewed a real genus as a kind of whole. Philosophically, or scientifically, considered, he thought of it as a generic body, the immediate, proximate, first, or proper subject, principle, of different *per se* accidents, unities, or properties within the genus.”⁵³

The genus as a “subject genus” is similar to the way Plato used the word to talk about various classes of people like the philosophers and shopkeepers. The subject-genus is generated by some human desire and a specific set of principles that provide the organizational whole for demonstration within the genus. Plato’s genera of groups of people are also generated by a human desire of some kind as well as the nature of the endeavor.

⁵² *Ibid.*, 1005a.

⁵³ Peter A. Redpath, *A Not-So-Elementary Christian Metaphysics*, vol. 1 (St. Louis, Mo.: En Route Books and Media, 2015), 166.

St. Thomas Aquinas

While the previous authors wrote in Greek, and they used dialogues or considered a wide variety of topics, Aquinas writes in Latin, his primary task is philosophical in nature, and thus his language tends to be much more technical. As a result, Thomas seems to drop the common usage of the word that refers to descendants and kin although the Greek *genos* is translated directly into the Latin *genus*. Thomas retains the logical use of the word that is used in definitions of terms, and he also develops the Aristotelean idea of the “genus” being an organic whole and a science.

In his *Commentary on the “De Trinitate” of Boethius*, Thomas says that genera are differentiated according to their common matter: “Diversity of matter produces diversity of genus.”⁵⁴ In the context of this question, Thomas takes the time explicitly to distinguish between the genus of the natural philosopher and the genus of the logician.

The logician “considers genus only according to its formal aspect.”⁵⁵ In other words, the logician is only concerned with the definition in the abstract, not with the thing itself as the natural philosopher is concerned with both aspects of form and matter.

The natural philosopher talks about genera according to their substances, and the genera of the natural philosopher do not always follow the same patterns of the genera of the logician. Thomas points out that a rock, the sun, and an angel may all be classes together in the genus of *substance* by the logician since all are substances; but the met-

⁵⁴ Thomas Aquinas, *Super Boethium de Trinitate*, q. 4, a. 2. For Questions 1–4, see *The Trinity and the Unicity of the Intellect*, trans. Rose E. Brennan (St. Louis: B. Herder, 1946); for Questions 5–6, see *The Division and Methods of the Sciences: Questions V and VI of his Commentary on the De Trinitate of Boethius*, trans. Armand Maurer (Toronto: Pontifical Institute of Mediaeval Studies, 1986). Available online—see the section *References* for details.

⁵⁵ *Ibid.*

aphysician would separate those from each other because they do not share a common matter.

This same point comes up later in Question 6. Thomas indicates that all material and immaterial substance are in the same remote, logical genus.⁵⁶ However, from the perspective of the physicist, or natural philosopher, material and immaterial substances belong to different genera because they are composed of different matter (finite and everlasting). So, the division of genera depends on the type of subject genera one is conducting. The criteria for forming genera for the logician are not the same as the criteria for forming genera for the physicist.

Of special interest to Thomas in general is how the philosopher uses the term “genus.” An especially striking example of Thomas’s usage of the term comes from the first question in the same work where he discusses the genus of intelligible things.⁵⁷ In particular, he discusses whether or not God is in this “genus.” While God is not in the “genus” as something intelligible, He is nevertheless related to it as its principle, as a cause of the existence of the “genus.” Considered as such, He can be known through His effects, which are in every “genus” of intelligible beings. Of special interest is the fact that, “The intellect and the intelligible object are of one genus.” The person who studies intelligible objects is in the same genus as the intelligible objects. The genus is an organic whole that includes the knower and the thing known, “as potency and act.” Thomas writes,

The philosopher of nature and the metaphysician treat of essences as existing in reality [as opposed to the logician who treats only of abstract definitions of things]; and therefore they say that there are different genera wherever they find diverse modes of potency and act, and consequently diverse modes of being.⁵⁸

⁵⁶ *Ibid.*, q. 6, a. 3.

⁵⁷ *Ibid.*, q. 4, a. 2.

⁵⁸ *Ibid.*, q. 6, a. 3.

Included in the modes of being are the principles of the things and how they are known by those who study them.

In his discussion of the division of the sciences, Thomas analyzes the principles of the subject genus as a science. In particular, he states that the science must include the principles of the subject genus.⁵⁹ These principles can be substances themselves or the principles of natures "as unity is the principle of number." In either case, the science studies those principles only insofar as they pertain to the particular subject "genus."

This agrees perfectly with what Aristotle says about each science using the principles only to the extent that they need them.⁶⁰ Therefore, the genus extends beyond the thing being investigated. It includes the investigator as far as he or she is related to the thing known. The genus also includes the causes and principles of the things and their knowability.

In his *Commentary on the Posterior Analytics of Aristotle*, Thomas says the same thing about the domain of demonstration and the genus. He argues that a demonstration proceeds within the same subject and does not skip from one genus to another.⁶¹ As he discusses and gives examples, he refers to geometry and arithmetic as genera, and he uses the terms "science" and "genus" almost interchangeably. He refers to the separate sciences of geometry and arithmetic because terms must be used in the same sense as the demonstration proceeds through the premises to the conclusion; and the sense of the term depends on the "genus." But if the demonstration moves from one "genus" to another, then the senses of the terms change, and the demonstration is invalid.

⁵⁹ *Ibid.*, q. 5, a. 4.

⁶⁰ Aristotle, *Metaphysics*, 1005a.

⁶¹ Thomas Aquinas, *Commentary on the Posterior Analytics of Aristotle*, I, 15, trans. F. R. Larcher (Albany: Magi Books, 1970). Available online—see the section *References* for details.

This passage illustrates further that Thomas uses “genus” in accord with the sense of “subject genus” that Aristotle developed.

In this same *Commentary*, Thomas discusses the unity of a genus; he says that depends on the unity of its end:

The unity of any motion is judged principally from its terminus. . . . Consequently, the unity of any science must be judged from its end or terminus. But the end or terminus of a science is the genus concerning which the science treats.⁶²

The thing studied is a composite whole, and generic organization. The unity of that organization determines the unity of the science. Thus, the unity of the science depends upon the principles of the genus, including the end of the science.

Thomas also includes diverse ways of knowing as ways of dividing genera, saying, “The genera of the scientifically knowable are distinguished according to the diverse modes of knowing.”⁶³ The end of the science is not separate from the human knower, and so the knower is included in the genus.⁶⁴

In Lecture 25 of the same Book, Thomas provides other examples of the division of sciences based upon their aims.⁶⁵ One example is the distinction he makes between astronomy and nautical astronomy because, while both study the stars, astronomy does so for the sake of knowing about the stars, but nautical astronomy studies the stars for the sake of navigation.

This is similar to the way that Plato identified groups of people based on what they do, such as the philosophers and the shopkeepers, shepherds and money-makers. The knower and the thing known are in

⁶² *Ibid.*, I, 41.

⁶³ *Ibid.*

⁶⁴ This supports what Thomas said in a previously-cited passage about the intellect and the intelligible being in the same genus.

⁶⁵ Aquinas, *Commentary on the Posterior Analytics of Aristotle*, I, 25.

the same “genus.” Knowers seek to know things for different purposes, and that is one of the things that separates the genera. The human desire to know is a principle of the genus, and the end of the knowing is also a distinguishing difference of the genus.

In discussing ways in which the one and the many are opposed, Thomas writes, “Those things are generically diverse which are not generated from each other.”⁶⁶ He refers to things that have or do not have common matter, or proximate matter, and he argues that things that do not have common matter are not generated from each other. This is similar to the usage from the pre-Socratics who were looking at a new form of generation and for causes among matter. Thomas uses “genus” here in the same way.

Thomas’s understanding, however, goes beyond that of the pre-Socratics because “matter” can also refer to the common matter of a subject, as was seen above. But Thomas makes the connection between genus and generation clear in this passage.

This common, proximate, generating matter is the way in which Aquinas builds on Aristotle’s definition of “genus” from Book V of the *Metaphysics*, discussed above. In section 1125 of his *Commentary on Aristotle’s Metaphysics*, Thomas distinguishes between genera on the basis of diversity of common matter.⁶⁷ Common matter is a proximate principle of any “genus;” it generates and brings into being that genus.

That sense of the term is implied in the history of the term through the pre-Socratics, but Thomas makes it more explicit: “Aquinas clarified Aristotle’s meaning by referring . . . to the idea of a proximate subject as a *subjectifying common matter*, a proximate generating prin-

⁶⁶ Thomas Aquinas, *Commentary on Aristotle’s Metaphysics*, X, 4, 2020, in *Commentary on the Metaphysics of Aristotle*, 2 vols., trans. John P. Rowan (Chicago: Regnery, 1964). Available online—see the section *References* for details.

⁶⁷ *Ibid.*, V, 22, 1125.

ciple of necessary accidental species.”⁶⁸ This distinction forms the basis of Thomas’s division of the sciences.

This use of the term is different from the way logicians use the term. Thomas was aware of the way logicians use “genus” as a part of definitions, but he was careful to distinguish this metaphysical sense from the logical sense. “This sense of ‘genus’—he writes—is not the one that signifies the essence of a species, as animal is the ‘genus’ of man, but the one that is the proper subject in the species of different accidents.”⁶⁹ Peter A. Redpath writes in reference to this passage, “Aquinas explained that this sense of ‘genus’ is not the same as the sense of ‘genus’ as signifying the essence of a species, which is the way the logician uses the term ‘genus.’”⁷⁰

Thomas writes that the basis of analogical usage of terms is the real genus: “Those things which have one term predicated of them in common, not univocally but analogously, belong to the consideration of one science.”⁷¹ In his example, the term “being” is predicated of substance and accident not in the same, univocal sense, but analogously.

The basis of this analogous predication is that both substance and accident are studied in the science of being. Thomas writes that analogy has to do with proportion within a genus.⁷² Terms are predicated analogously because different species within the genus are closer to or farther from the perfection and measure of the species. Analogous predication is made “according as each one by its own relationship is referred to that one same thing.”⁷³

⁶⁸ Redpath, *A Not-So-Elementary Christian Metaphysics*, 169.

⁶⁹ Aquinas, *Commentary on Aristotle's Metaphysics*, V, 22, 1121.

⁷⁰ Redpath, *A Not-So-Elementary Christian Metaphysics*, 166.

⁷¹ Aquinas, *Commentary on Aristotle's Metaphysics*, IV, 1, 534.

⁷² Aquinas, *Commentary on the Posterior Analytics of Aristotle*, I, 18.

⁷³ Aquinas, *Commentary on Aristotle's Metaphysics*, IV, 1, 535.

Even though members of the same genus may be very different things and may occupy different logical genera, yet there can be analogous predication of them by virtue of some quality that puts them into the same genus. Thomas writes, "It is not necessary for one science to consider all the species of one genus according to the special notes of every single species, but only inasmuch as they agree generically."⁷⁴ Thomas gives the example of a lion and an ox being considered with respect to their existence within the science of being, but their nature as animals would fall under what he calls here their own "special science." Again, he writes that it is proper for one science to study how different things are related to one common thing or one nature, a common matter.⁷⁵ Thus, the species within a genus are divided according to their degrees of perfection in relation to the principle and chief aim of the genus.

The measure of a genus is a perfect exemplar and cause in the genus. As Thomas writes in the context of his famous "Fourth way" for demonstrating God's existence, "The maximum in any genus is the cause of all in that genus."⁷⁶ This quote makes no sense according to the logician's understanding of "genus," but, if a genus is an organized, or hierarchally-ordered, whole, generated from a common, proximate, matter, and the basis of degrees of perfection and analogous predication, then the "Fourth way" makes sense. The genus would not exist without the maximum, that which "sets the standard" for the genus with its highest degree of perfection. As Redpath indicates, the maximum in any genus "maximally participates in the nature of the genus. In so doing, it maximally contributes to fulfilling the chief aim of the genus and

⁷⁴ *Ibid.*, IV, 1, 547.

⁷⁵ *Ibid.*, IV, 1, 544.

⁷⁶ *The Summa Theologiae of St. Thomas Aquinas*, I, q. 2, a. 3, second and revised edition, 1920, literally translated by Fathers of the English Dominican Province. Available online—see the section *References* for details.

becomes the measure in light of which we know all the less perfect members of the genus.”⁷⁷

The genus is the basis of real contraries since “contraries are attributes which have the greatest difference ‘under the same potency,’ i.e., the same art or science.”⁷⁸ And an art or science is a genus. Contraries have to be related to each other in some way as extreme opposites, and they are related to each other by their relation to some common matter or common aim. Thomas goes on to show that intermediates between contraries are also members of the same genus.⁷⁹ Contraries and intermediates are an essential component of the science of metaphysics which studies how things exist and are one and yet can change. Change is the movement from one contrary to another,⁸⁰ and an understanding of contraries is based on an understanding of the genus.

In summary, Thomas builds primarily on the Aristotle’s use of the term, but that use also includes and is related to the senses observed in Plato, the pre-Socratics, and even the common sense of biological generation. Thomas synthesizes all of these meanings so that the “genus” is an organizational whole with a chief aim. The genus is the basis of everything that Thomas does in metaphysics and in every science, division of philosophy; and it took a development of over 1500 years of philosophy as a Western philosophical enterprise for “genus” to come to mean what it did for Thomas.

⁷⁷ Redpath, *A Not-So-Elementary Christian Metaphysics*, 200.

⁷⁸ Aquinas, *Commentary on Aristotle’s Metaphysics*, X, 5, 2035.

⁷⁹ *Ibid.*, X, 6, 2036.

⁸⁰ *Ibid.*, X, 9, 2100.

Conclusion

For Thomas, "scientific knowing consists in nothing less than having science, namely, from demonstration."⁸¹ But Thomas clearly argues that demonstration depends upon remaining within the same genus as the argument proceeds. If someone does not know what a "genus" is, then he or she will not be able adequately to explain why his or her demonstration works. Not only that, he or she will not be able to understand what Thomas is doing when he lays out a demonstration.

Apart from the danger of not knowing the basis of demonstration, a genus is the basis of any science. Every science studies some real genus. Any scholar should have a firm grasp of the genus he, or she, studies. That includes the principles that bring that genus into being and the aim of that science.

Every genus has some chief end. The science studies the ways in which the genus is numerically one. Redpath writes,

Strictly speaking, no genus considered as a "genus" can exist in a condition in which its specific members behave as if they are essentially unrelated to (1) each other, (2) the genus, (3) cooperatively fulfilling the chief aim of its genus, (4) producing a human good that, in some way, improves some human capacity to arrive at human happiness.⁸²

Without an understanding of the "genus," no scholar can understand the Thomistic basis of analogous predication. Even the "Fourth way" of Thomas Aquinas cannot be understood without first properly understanding what Thomas means by a genus.

The entirety of metaphysics is based on the idea that every science is a genus with principles and an aim. Metaphysics considered as a science is the speculative study of being, and all things that are essen-

⁸¹ Aquinas, *Commentary on the Posterior Analytics of Aristotle*, I, 13.

⁸² Redpath, *A Not-So-Elementary Christian Metaphysics*, 198.

tially related to being are included within this science. Even though “being” and “unity” are used in many different senses, they are all part of metaphysics,⁸³ and it is within the context of this genus, and because of perfections and imperfections existing within this genus that “being” and “unity” can be predicated analogously. Genus is an essential basis of analogous predication. If a scholar does not understand Thomas’s teaching about genus, he, or she, will not be able to understand fully Thomas’s metaphysics or his teaching considered as a whole.

If a scholar only understands the logician’s definition of “genus,” then he, or she, will not be able to understand what Thomas is doing in his study of metaphysics. The genus is the basis of what it means to be scientifically one. Since the study of being is interchangeable with the study of unity, then the study of the organization of things that are one (organizational wholes, genera), really existing genera are the foundation of metaphysics and, therefore, of the rest of philosophy.

This paper is not intended to claim that the logical sense of the term is completely wrong and never used by Aquinas. Saying that would be false; but it is necessary for any scholar of Thomas to understand the “genus” that Thomas puts at the foundation of science and his metaphysics. The historical analysis of the term helps the scholar know the origin and development of the term and to see that the logical sense is the furthest from its original meaning for Aristotle and St. Thomas.

“Genus” first meant a group of people related to one another or along a line of common descent. The basic idea was that a common source of generation existed. This term was applied analogously by the pre-Socratics in their analysis of the nature of the universe and what makes things what they are. Besides this common meaning, Plato used the term to relate to a field of study or group of people generated by a common aim or endeavor. Aristotle used *genos* to refer to an organic

⁸³ Aquinas, *Commentary on Aristotle’s Metaphysics*, IV, 2, 563, and 3, 568.

whole, even a science, that has members based on common generating principles and aimed at some chief end. For Thomas, “genus” is a co-operative unity; and it is the basis of all science, since every science investigates some “genus” for some chief aim.



**The Meaning of *Genus*
in Ancient Greek Philosophy up to Aristotle and in Thomas Aquinas**

SUMMARY

The term “genus” has evolved over time. This paper traces development of the word from the common usage of Ancient Greece, through the pre-Socratic philosophers and Plato, and up to the more technical use in Aristotle. It began in common use to mean a class or race of people, most specifically referring to people with a common parentage. The pre-Socratics applied the term to refer to things that were generated. Plato used the term to refer to groups of people generated by a common interest or aim. Aristotle employed it in different ways based on his predecessors. This paper makes comparisons between these usages and the philosophy of Thomas Aquinas. It argues that understanding the development of “genus” facilitates understanding how Thomas Aquinas used it.

KEYWORDS

Homer, Isaeus, Xenophon, Heraclitus, Parmenides, Empedocles, Plato, Aristotle, Thomas Aquinas, genus, philosophy, science, metaphysics.

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