

Excerpts from Commentary on Peter of Spain's *Tractatus*

By Simon of Faversham

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Translated by John Longeway

Prooemium: The Philosopher says in *Metaphysics* IV that every natural thing is determined by its proper function (*operatio*)—when it is capable <in that function> it is called a singular, that is, a <single> being of that sort, and when it is not, it is only called a singular equivocally. And he gives the eye as an example. For the eye, when it is capable in its proper function, which is seeing, is called an eye, but when it is not capable, it is only called an eye equivocally. But since a human being is of the number of natural things, it must have a proper operation, and when it is capable in it it is called a human being, and when it is not it is only called a human being equivocally. But being is not a function of this sort, since being is an actuality of every being. Nor is vegetative activity, since it agrees with plants; nor sensing, since it is in every animal; nor understanding, since intelligences¹ also understand. The Philosopher, noting that these are not functions proper to human beings, says that human being agrees with all beings in being, with plants in vegetative functions with brutes in sensing, with angels in understanding. It follows therefore that these are not functions proper to human beings.

But the function proper to a human being is reasoning, and this is evident from both reason and authority. First, by reason thus: That is the operation proper to human beings from which the specific difference of human being is taken, but the specific difference of human being is taken from reasoning; therefore this is the function proper to human beings. The major premise is obvious from Avicenna, who says that its difference is taken from the form proper to each reality. But the proper function arises from the proper form. Therefore etc. Again, that is the function proper to human being which agrees with human being alone, but the act of reasoning agrees with human being alone; therefore reasoning is its proper function. The major premise is obvious, since a property is what agrees with only one reality. The minor premise is explained through the definition of reasoning—John the Grammarian² defines it in this way: reasoning is the passage of reason from things known beforehand to things that are to be known afterwards. But it is certain that Intelligences don't understand in this way. Therefore this function, reasoning, agrees with human being alone. This appears in authoritative remarks of the Philosopher, first in the *Epistle to Alexander*, lust certainly, and anger and the rest occur in all the rest of the animals, but reason in none of them except human beings. The Philosopher means by this that reasoning is the function proper to human beings. The Philosopher in *Metaphysics* I: “others certainly live by imagination and memory, but the race of men alone lives by art and reasoning.” And it is apparent from this that reasoning is the primary function of human beings. Again, Seneca: “Human beings and lions are more beautiful, and peacocks, of those who have voluntary motion and impetus; and as other beasts and worms have voice, but a tom-cat the

¹I.e. the separated intelligences of Neoplatonic tradition, identified with Angels by the theologians.

²I.e., John Philoponus, on *De Anima* III.

loudest and most distinct, dogs the sharpest and the eagle the deepest, the bull the most delightfully glowing. . . “Reason, therefore, is the good proper to human beings, and the other goods are common enough with the other animals. It appears from what has been said, then, that reasoning is the function proper to human beings, and when a human being is capable in this function, it is called a human being, and when it is not, it is only called a human being equivocally.³

Restating the argument, then: each natural reality is determined by its proper function. When it is capable in this, it is called a singular, that is, a being falling under its kind. When it is not capable in this, it is only called a singular, falling under its kind, equivocally. But since human being is of the number of natural realities, it therefore has a proper function. This is reasoning. Thus it is obvious from what has been said that when it is capable in this function, reasoning, it is called a human being, and when it is not, it is only called a human being equivocally.

One ought to note that the Philosopher, in *De Caeli et Mundo* II, says that each reality of which there is some function, is ordered to that function as to an end. Since, then, the act of reasoning is the function proper to a human being, a human being is related to the act of reasoning as to an end. And whoever does not have reasoning, such a human being is called useless and a beast. And so three things appear: that a human being who does not have the act of reasoning is called a human being equivocally, second, that such a human being is useless, and third, that such a human being is a beast.

But since we cannot have the function, reasoning, except through logic, therefore logic is greatly to be sought.

And immediately you will ask, don't all human beings reason naturally? I reply that although all do reason naturally, still one can never reason perfectly without logic. That we have the act of reasoning perfectly through logic is obvious from the authority of Al Farabi, for he says, “just as grammar directs discourse and speech so that one does not err in interpretation, so logic directs reason so that one does not err in reasoning. It follows therefore that a human being reasons rightly and perfectly by means of logic.

Again, this is explained through the interpretation of this word “logic.” In one way it is called “log-“ from “*logos*,” that is, “discourse,” and “-ic” means “science”—the science of discourse, as it were. And through this interpretation it is one of the sciences of discourse, and extends to the entire *trivium*. In another way, it is called “logic” from “*logos*” in Greek, which is “reason” (“*ratio*”) in Latin, and “ycos,” “science”—so the science of reason, as it were, which directs one's reason, the function proper to human beings.

It is apparent, then, from what has been said, that a human being without logic is not human except equivocally.

To commend logic, Albert says a courtly word, thus, “logic judges fantasies which seem to be and are not, condemns error, shows up falsehood, and gives light to correct speculation in all things.” And he says last that the other sciences are to logic as the uneducated to the wise. For an uneducated person neither knows his own error, nor how to correct the error of others. And so he says that for someone to know the other sciences without knowing logic is for him to know but not to know that he knows, and as fire burns, but does not burn itself, so it is in this case. And

³The point of this may be lost on the reader, but Aristotle specifies that a dead person, who is not capable of reasoning, of course, is only called a human being equivocally.

therefore logic, through which a human being is called human, and has the actuality of perfect reasoning, is greatly to be sought.

It should be noted that we ought not to look for the order of knowledge in these same sciences, but rather the order of instruction, so that the easy things come first, the difficult later. So Boëthius in the book *De Disciplina Scholarium* : “for what in the work of the gymnasium is more lucid etc.” And therefore teachers, nothing the difficulty of logic, produced this book, since in this book everything treated in logic is laid out, but in a different manner. There it is laid out after the manner of an art, but here after the manner of instruction. And therefore it appears what the subject of this book is, since it is that which is the subject in all of logic.

To make this evident, it should be noted that “subject” is said in five ways. In one way a complete being made up of matter and form is called subject, and this is the subject of an accident, and is touched on in the *Categories* when he says it is common to every substance not to be in a subject.⁴ In another way a subject is something, as it were, placed under, so that the inferior is subject of the superior, and this is called the subject of interrelation, and it is touched on in the same place when he says, “when another etc.” In the third way a subject is a second intention founded on something insofar as it is what another can be said of, and therefore we say that in a proposition there are two things, namely subject and predicate. In the fourth way, a subject is prime matter, which stands under substantial form, and this matter is very difficult to know, and therefore the Philosopher in *Physics* I says that prime matter cannot be known except by analogy to form itself. “Subject” is not used here in any these four ways. In the fifth way it is the same as object. It is used here in this way. And it has three names—“subject,” “object,” and “material cause,” but in different ways. It is called “subject” with reference to its properties which are laid out in a book, as a statement is the subject in *De Interpretatione*, with reference to its accidental properties, which are opposition, equipollence, and conversion. It is called “object” with reference to the intellect. It is called “material cause” because the intention of instruction and knowledge turn on it. And so it appears in what way “subject” is used when the subject of books is asked about. And it must be said that the subject in this book is the same as the subject in all of logic.

To make this clear it should be known that “subject” is said in common of everything that is laid out in a book. But something can be common in two ways. In one way something is called common in virtue of commonness of predication, for instance, “animal” is common. In the second way from commonness of attribution, for example, everything which is under animal is attributed to the same. And when a subject is called common it is so-called in two ways. One is a common subject from commonness of predication—for instance, “an intentional being is formed by the intellect,” and it is called the subject of predication, for “intentional being” is predicated of all rational entities, namely of syllogism, argument, noun and verb, sentence and proposition, and so on for the rest. Of all of these “intentional being” is predicated, as for example, in “syllogism is intentional,” and so on. In another way the subject is common by commonness of attribution. So “syllogism” is commonly used in such a way that it covers dialectical syllogism, demonstrative syllogism, and other intentional beings, that is, noun, verb, sentence and so on. All

⁴Aristotle, *Categories* 5, 2a13-15.

these are attributed to syllogism commonly so-called.⁵ It is apparent, then, that what is subject in all of logic is the subject in this book, in this way as was said, but in a different manner, since in all of logic “subject” is used after the manner of the art, but here after the manner of instruction.

The efficient cause is Peter of Spain, who produced this book so that young men could approach all the other books of logic knowing something already. The formal and final causes are to spoken of as in other books.

On De Intrepretatione:

(1) “*Dialectica est ars.*” This book, the subject of which is an intentional being formed by an art of the understanding, generally called syllogism, treated in an introductory way, is divided into two parts: the prooemium and the discussion itself. In the prooemium he mentions the reasons for the matters to be discussed, and in the second part he goes on to discuss them. And this begins at “*sonus.*” The first part is divided into three parts. He puts the reasons for the matters to be discussed first, and second he adds the order of discussion, at “*Sed quia disputatio.*” The first of these has two parts: first he treats of what dialectic really is, and second of the nominal essence of dialectic, at “*Et dicitur dialectia.*”

It must be known that according to the Philosopher in *Posterior Analytics* II there is a great deal of difference between what a thing really is and its nominal essence. So if someone were to tell a boy to bring a horse, the boy will know very well the nominal essence of horse, but will not know what they thing really is, since this is to know the definition. And so the author shows first what the nominal essence of dialectic is, and secondly what they real nature of dialectic is. But the first divides into two parts. First he shows the definition of dialectic, and then he infers a corollary at “*Et ideo in acquisitione.*”

This is the division of the text.

(2) The intention of the author in this whole book is, in an introductory way, to settle the truth about an intentional entity formed by the understanding. First he proceeds thus: he puts the prooemium first, through which he invites us to love and desire for this book, through which he also causes us to have a good will, be easily taught and attentive, something to be done in every prooemium. First, then, he puts the definition of dialectic.

(3) “Dialectic is an art.” to make this evident, it must be noted that “dialectic” is taken in two ways. In one way it is taken as a part of logic. And in this way dialectic is (or names) nothing other than a certain habit produced in the intellect by a dialectical syllogism. And in this way dialectic is a part of logic and is laid out in Aristotle’s *Topics*. And since the *Topics* is a part of logic, therefore dialectic is a part of logic. In another way it is taken as all of logic. And in this way it names nothing other than a certain habit of knowledge produced in the intellect by syllogism taken without qualification, that is, taken generally as extending to all syllogisms, as much to dialectical syllogism as to demonstrative. And this is the way dialectic is defined here, not in the first way as a part of dialectic.

⁵They are not predicated of syllogism, so that a syllogism is not a noun, but they are attributed to it because they are obliquely, but not directly signified (to borrow Ockham’s terminology) when we say “syllogism,” for a noun, for instance, is an essential part of a syllogism.

And you will immediately ask what the reason is why the author, wishing to settle the truth about an intentional entity here in an introductory way, begins from all of logic. There are two reasons: since the Philosopher says in *On the Generation of Animals* that things ordered to an end draw every form and distinction from that end. An example is the roundness of the eye, since if someone were to ask why the eye is round, then it would be answered in short that it is so we can see. Now it is in this way that this science is ordered to all of logic as its end. And since logic is the end of this book, therefore it begins from all of logic or dialectic, by defining it.

Again, another reason for this is that this will suggest the gravity, utility and necessity of this book, and so makes us hearers attentive, easily taught, of good will and friendly, and so will invite us to love and desire for this book. And because of this he begins from all of logic.

It should be noted next, concerning the part, “Art of arts,” what is understood by “art” and “science.” “Science” names nothing other than a certain intellectual habit lying quiet in the soul. And we can draw this from the definition of “science” which the Philosopher puts in *Ethics* VI—science is an intellectual habit in the soul which is both true and always firm. By “art” we understand nothing other than a certain intellectual habit in application to practice. “Art” is said of it because of its application to the reality understood, “science” is said of it insofar as it lies quiet in the soul.

(4) Next, it should be noted that “logic” or “dialectic” is taken in two ways, in one way as teaching something and in another as in use. And since dialectic or logic is an intellectual habit, such an intellectual habit can be applied to two things. In one way such a habit can be related to its causes or to the principles by which it is taught, and taken in this way logic is taken as teaching something. In another way a habit is taken in relation to other sciences, so that it is used for its subject, and in this way it is in use.

Now as regards the matter at hand, I hold that since dialectic is an art it is considered as logic teaching something. For it is said to be teaching in relation to its causes, and the principles through which it is taught. So the Philosopher says in the prooemium of his *Metaphysics*, only those teach who teach through causes and principles.

Again, it should be noted that it is not called “art of arts, science of sciences,” because it surpasses all other sciences, since the Philosopher in *Ethics* VI says that wisdom, that is, metaphysics, is the head of the other arts and sciences, and means that all the sciences together, without metaphysics, are “*acephale*,” that is, without a head. And as metaphysics surpasses all the other sciences, and therefore logic or dialectic is not called “art of arts” because it surpasses all the other arts and sciences. But it must be understood that the Philosopher says in *De Anima* III that the hand is the organ of organs, not because it exceeds the other organs in worth, since the heart has more worth than the hand, and likewise the head, but it is to be understood that the hand is the organ of organs insofar as it is necessary to minister to all the other organs, to put a cap to the head, shoes to the feet, and so on. So I hold concerning these things that dialectic is not called “art of arts” because it exceeds the other sciences in worth, but is called “art of arts” because it is necessary for it to minister to and extend to the other sciences. For the other sciences are prepared through dialectic. For whatever the other sciences have in the way of defining, dividing and arguing, all of this they have from logic, for logic teaches all of these things. It follows then, that logic or dialectic exceeds the other sciences in worth, but only in the way that has been said.

(5) It should be noted that one science is said to have more worth than another in three ways. In one way by the worth of its subject; since that science which has one subject is called one, and another which has a subject of greater worth is called of greater worth, and which has a prior subject is said to be prior. And since metaphysics is about the subject of greater worth, namely God, it is said to be of greater worth because of its subject. In another way a science is said to be of greater worth because of its claim to be demonstrative, and I hold that metaphysics is said to be of greater worth in this way too. In a third way a science is said to be of greater worth because it rules other sciences and directs their procedures. And in this way logic or dialectic is prior to the other sciences. And therefore the text is to be glossed in this way: “Dialectic is an art . . .,” that is, because it rules and directs the procedures of the other sciences.

(6) After this he said that dialectic is that which has the way to the principles of all methods and, what is more, the way to itself. To make this clear, it should be noted that a way is nothing other than a means of coming from ignorance to knowledge. I explain this with a comparison to natural things—three things are required on the way to a natural thing, namely, this very way is required, and also that there be no impediments on the way is required, and that one has the capacity and faculties and strength of body to come to that end. For although the way be the best, if his feet are clumsy, a person can easily not come to such an end. Logic provides all these things, since through logic as a means a man comes from ignorance to knowledge, as logic gives the way to the other sciences in the *Prior* and the *Posterior Analytics*. And this way is the means by which one removes obstructions to the other sciences, as in the *Ethics* and in *De Sophisticis Elenchis*. And logic also gives the capacity and strength for coming to the other sciences, as in the *Topics* of Aristotle, for there he teaches how to argue. From everything that has been said it follows that this same logic has the way to the other sciences. And therefore the author says that this same logic teaches the method for coming from the known to the unknown. And the author himself says most suitably that it has the way to the principles of all methods, that is, sciences.

It should be noted concerning the word, “principles,” since logic decides about the principles of the other sciences, that “principle” is taken in two ways. In one way it relates to that reality treated in them, and in this way metaphysics decides about the principles of the other sciences. In another way “principle” is considered with respect to whatever intentional being is in them, and in this way logic decides about the principles of the other sciences. And this is explained thus: you accept this principle, “a triangle is a plane figure of three lines containing three angles equal to two right angles.” Here there are two things to consider. As regards the way of defining, since the way of defining is an intentional being, logic considers this same principle. In another way, as regards the reality which is treated in it, it is metaphysics which considers it. And so this text is to be glossed, “having the way to the principles of all methods — as regards the way of knowing which is in them, and as regards intentional being.” It should be noted that method and faculty are the same, but they differ inasmuch as “faculty” is said of the *trivium*, but “method” of the *quadrivium*. And so it must be held that “method” occurs here in a broad sense so that it extends to the sciences of both the *trivium* and the *quadrivium*, as well as all the other sciences. For this very logic provides the way of knowing for the others, and, what is more, provides the way of knowing for itself.

(7) And you will immediately object: for I see that the way of knowing of a science

follows on its way of being. But since logic has the way of knowing of itself, it precedes itself. This seems absurd, and if it must be said that logic precedes itself, this is impossible. To clear this up, it must be noted that logic is of two sorts, natural and artificial. For everyone in the world has natural logic, since even a farmhand knows very well how to argue. Artificial logic is what is laid out in the books of the Philosopher. Now as to the matter at hand, artificial logic is a way of knowing for the other sciences, and in no way gives a way of knowing to itself or precedes itself. Natural logic has the way of knowing for artificial logic and precedes it. It appears, then, that logic gives a way of knowing to itself. It must not be understood as the Ancients say, that as the sky covers all, but does not cover itself, so it is in logic, but it should be understood as we have said here.

(8) [De Rijk summarizes the next section: Simon divides grammar into three kinds: *grammatica positiva*, *grammatica usualis*, and *grammatica speculativa* or *regularis*. The last sort “arises through a cause and a form, as it arises through *modi significandi*.” Natural logic is prior to all kinds of grammar, and prior to artificial logic as well. Artificial logic is prior to speculative grammar, but not to the first two sorts.]

(9) Notice that a science is said to be *rationalis* in three ways. In one way from the procedures used, and in this way all sciences are said to be *rationalis*, since all proceed rationally. In the second way a science is rational because it is about intentional being (*ens rationis*), and in this way grammar and rhetoric and logic are called *rationalis*, since they are about intentional being. In the third way a science is said to *rationalis* because it directs reason. And so logic is said to be *rationalis* for three reasons, in the first way from its manner of proceeding, since it proceeds rationally, in the second way since it is about intentional being, and in the third way because it directs reason.

(10) It should be noted that two things are required for an utterance to be significant. First, it is required that it signify something other than itself, since a sign must differ from the thing signified. This is obvious from the definition which Cicero, and Remigius in his commentary on Donatus, give, “a sign is that which offers itself to the sense and passes something else on to the understanding.” Since, then, an utterance is a sign, it is necessary that it signify something other than itself. In the second place, it is required that it signify what it signifies from imposition, or the will of the impositor. And “bu,” and “ba,” are excluded by this requirement, for although they signify something, they still do not signify by imposition, and therefore are not called significant utterances.

And next it should be noted that there are two things in an utterance, namely the intention of the utterance, and this presents itself to the hearing, and that which is subordinated to such an intention, and this presents itself to the understanding.

(11) [cf. *Question on De Interpretatione*, esp. Question 2] “A name is an utterance (*Nomen est vox*).” Here two things are to be noted. The first is the reason why the name is discussed here before the verb. The second thing to be noted is why the noun and verb are considered by both the logician and the grammarian. Now name precedes verb in three ways, first, by reason of signification, second, by reason of predication, third, by reason of construction. By reason of signification, since the name signifies by way of existence (*entis*) and essence, but

the verb by way of being (*esse*). But being flows from the essence as an effect flows from its cause. And since the cause precedes its effect, by reason of this the noun precedes the verb. In the same way by reason of predication, since essential or substantial predicates are conveyed by the name, but accidental predicates by the verb. In the same way name precedes verb by reason of construction, since in construction there are two things, namely *suppositum* [what is assumed or supposed] and *appositum* [what is added on]. But *suppositum* is prior to *appositum*. The name, however, has the form of a *suppositum*, a verb that of an *appositum*. But according to the Philosopher in *Prior Analytics* I, the subject is prior to everything apposited to it, that is, to its accidents. Therefore the name precedes the verb by reason of construction. It is apparent, then, that the noun precedes the verb because of these three reasons. Therefore the noun ought to be discussed before the verb.

In the second place, it is to be noted that name and verb are considered in different ways by the logician and grammarian, and so they are defined differently. The grammarian considers the name and verb as they are ordered to the grammaticality and completeness of a construction. But the completeness of a construction is dependent on the relation among *modi significandi*. And since a *modus significandi* is nothing other than a part of speech, since each part of speech is the part it is because of its essential, general, and specific *modi significandi*, therefore the grammarian, defining name by means of the notion of a part of speech, says: "A name is a part of speech signifying because of a *modus habitus et quietus*, and because of a *modus determinate apprehensionis*." But the logician considers these as they are ordered to truth and falsity. Now it happens that truth and falsity depend on the reality signified. So the logician says: "A noun is a significant utterance," defining it by "signify." Truth and falsity, in another way, depend on *modi significandi*, although this is less important, as in saying, "a man is humanity" — for "humanity" signifies through a *modum abstracti*, and therefore it cannot be principally predicated of man.

(12) Next, it should be noted that that from which a term is imposed and that which it is to signify when imposed differ. This is clear from the name "stone," since "stone" (*lapis*) is imposed from a characteristic (*proprietas*), which is hurting the foot (*laedere pedem*), and it is imposed so as to signify a simple reality, namely a stone, and therefore a stone and hurting the foot differ essentially as a reality and its characteristic. [Note Simon's implied etymology for *lapis*.]

(13) Note that there is a difference between signifying and consignifying. For to signify is considered with reference to the significatum, but to consignify is considered with reference to the *modus significandi*, and not the significatum. And therefore the grammarian says "*modus significandi*," while the logician says "consignify."

(14) Next it is to be noted that there is a difference between categorematic and syncategorematic words. That is categorematic which signifies some definite and determinate concept. That is syncategorematic which signifies some concept *per se*, but not determinately and in a definite manner, but rather signifies it united with something else. And this is what Priscian says, "and so the signification of these varies according to the force of what is joined to them, and the way in which it is joined. And it is so called from "*syn*," that is, "with," and "*categorema*," that is, "consignification." And because of this some persons have wished to say that indeclinable parts signify nothing *per se* and in themselves, but this is false.

For I hold that they signify something in a definite way. And an argument can be given for this as follows: because that the significatum of which is distinct from every other is definite and certain in itself. Now it happens that the significatum of indeclinable parts is like this, since the Philosopher says in *Metaphysics* IV that what does not signify one thing does not seem to signify anything at all. So if indeclinable parts did not signify one thing, and something distinct, they would signify nothing. Therefore etc.

In the second place, I show the same thing in this way: what has a distinct *modus significandi* has a distinct signification, since just as the *modus essendi* presupposes a thing, so the *modus significandi* presupposes a significatum. Now every part of speech has a *modus significandi* distinct from the others. Therefore they will have distinct significata. And if this is so, an then indeclinable part also will have a distinct and determinate significatum.

When, therefore, it is said that they signify indeterminately, it must be understood that not everything signifies determinately, but they are said to signify indeterminately insofar as they can be determined. The reason for this is that what signifies a disposition can be limited (*limitari*) in its signification by some other significatum, since a disposition can be limited in what it is disposed to [its *disponibile*] by something else. But every syncategorematic word signifies dispositions with regard to its own significatum determinately and in a definite manner, and indeterminately in respect of something else, as in respect of what it is disposed to. Therefore those who say that indeclinable parts signify nothing *per se* in a definite manner and determinately explain Priscian badly, since this is false, as has been seen.

(15) [De Rijk notes that Simon says “*unum*” can be said in several ways: (1) “*Unitate divisionis*,” in this way a point is one in geometry and a term in logic, because it cannot be divided; (2) “*unitate formae et esse natura*,” in this way a continuum or a line is one, not because it is indivisible, but because it has a single form; (3) “*unitate compositionis*,” in this way a house is one, not because it has a single form or nature (there is no natural kind here except for the many natural kinds of the materials making up the house), but because it is constructed or put together as one; (4) “*unitate aggregationis*,” in this way there is not even an artificial form or structure, as in a house, but the unity is that of a heap, a mere aggregate; (5) “*unitate contiguitatis*,” in this way the unity arises from mere contiguity, as with two adjacent houses; (6) “*unitate ordinis eo quod habent ordinem ad unum*,” “unity due to the possession of that order which permits of unity,” and it is in this way that the whole world is one, according to Aristotle, *Metaphysics* XII.

[A sentence (*oratio*) is one in sense (3) or (4).]

(16) Since the author mentions universal signs, to make what is spoken of in the text clear it should first be known that the universal is of two sorts. Some signs are taken to be and called universal from a mode, and this universal is so-called from the mode of taking (*modus accipiendi*) [some word to stand] for every one of its *supposita* universally either affirmatively [or negatively]. And such a universal is not real, but modal, according to the Philosopher in *De Interpretatione*, where he says that “every” is universal only because it signifies universally, and conveys the mode of universality.

The other sort is the real universal. And this is of two kinds, from causality and from predication. Something is said to be a real universal from causality as its causality extends to everything or to many things—to everything as with God, who, since He is the cause of all

beings, can be called universal from His causality, to many as with the sky, since in its movement it [or rather, its causality] extends to every existent that can come to be and be destroyed. In the other way something is a real universal in predication, that is, whatever is predicated of many. And universal in this way is defined by the Philosopher in *De Interpretatione*, and by our author, in this way, “the universal is what is naturally suited to be predicated of more than one” — and so it is defined through what it is suited to. And although “universal” is taken in three ways, as has been seen, for some are modal universals, and some real universals from causality, and some real universals from predication, the author in the passage under discussion only mentions the universal taken in the first way.

(17) [De Rijk notes that Simon says that propositions such as “man is a species” are called singular, and those like “pepper is sold here and at Rome,” are called indefinite. After some discussion, Simon concludes:] “And as it is regarding this, it must be understood it is the same with others of this sort, in which someone makes a term a subject standing for an intentional being, as for example, in “animal is a genus,” and so on for the others.

To understand this one should know, by the solution of the argument that was presented, that one can take a term in two ways to stand for an intentional being: In one way so that in no way is it related to the *supposita*, and so that it is not taken for the *supposita*, and we hold that this is the way it is if they do not belong to such terms because of their own *supposita*; in another way something is made a subject standing for an intentional being in such a way that it is in some way related to its *supposita*, and so that it is taken for its *supposita* in some manner. In this way species and genus belong to such terms because of their *supposita*. For example, if I were to say, “pepper is sold here and at Rome,” this subject “pepper” has intentional being, but since it also has a relation to its *supposita*, therefore it must be said that it is not singular, but indefinite.

And as to the case at hand, I hold: if a term is taken in the first way so that it is not taken for any *supposita*, in this way it makes a singular proposition. And it is like this in the case at hand, i.e. “Man is a species,” since the man which is a species is not taken to stand for some *supposita*, and therefore it is a singular, and not an indefinite proposition. But if it is taken in the second way, so that it is taken for *supposita*, in this way it makes the proposition indefinite.

(18) Note, to make this clear, that there are five genera of predicates. For some are predicates said of the subject as it stands for the being it has in *supposita* — for example, in “a human being runs,” the verb “runs” is predicated of “human being” not considered absolutely⁶ but as it is in *supposita*. In the second way some are said of the subject as it stands for the being it has in the soul, and as it stands for an intentional being, for example, in “human being is a species.” For “species” is not predicated of “human being” by reason of its *supposita*, but because it has being in the soul. In the third way there are some predicates which are said and made true of the subject with regard to the being or its essence; and these are essential predicates, as Avicenna says in his *Logic* — for instance, in “a human being is an animal.” In the fourth way there are some predicates that are made true of the subject by reason of the utterance taken as such, for instance, in “human being is polysyllabic.” In the fifth way, there are predicates that are made true of their subjects not by reason of the utterance taken as such but by reason of the

⁶Emending De Rijk’s “abstractly.”

utterance as it is informed by a *ratio significandi*,⁷ and this goes together with a *modus significandi*,⁸ for example, in “‘human being’ is a name,” “‘runs’ is a verb.” To be a name or a verb does not belong to the word “human being” or to the word “runs” by reason of the utterance alone, but as it is informed by a *ratio significandi* as well as a *modus significandi*, since each part of speech has a *modus significandi*.

(19) Now as to the matter at hand, I maintain that those predicates that are made true or said of a subject as regards the being it has in *supposita*, and also with regard to the being of its essence, those propositions are called indefinite. But those predicates that are made true and said of the subject because of the utterance taken as such, or because of the utterance as it is informed by a *ratio significandi* and a *modus significandi*, and according to which they are said of the subject taken as regards the being it has in the soul or intentional being, which is the same thing — all of these propositions are called singular, for instance, “human being is a species,” “human being is polysyllabic,” “human being is a name.”

It is apparent therefore, from the what has been said, that this proposition, “human being is a species,” is singular, because the predicate is made true of the subject taken for an intentional being. And the same thing must be understood of other propositions of this sort. And therefore let there be a gloss: “That proposition is indefinite in which the subject term is common” — supply, “because it can be made multiple through its *supposita*,” “without a sign” — supply “either universal or particular.”

(20) here it should be noted that individual terms are of two sorts, and the unmarked (*vagum*) individual term is that which is of the same extension as its species, for instance, “some human being” is convertible with “a human being.” The other is the marked (*signatum*) individual term, and these there are three sorts: one by proper naming, as in saying “Henry”; another by the presentation of a proper quality, as in saying “this human being,”⁹ the third by appropriation of some common characteristic, as in saying, “Africanus,” which is a name common to all the men of Africa, but nonetheless a proper name attributed to Scipio because of special circumstances even though everyone from Africa can be called “Africanus.” And in these three ways something is called singular, but not in the first way, that is as an unmarked individual term, since an unmarked individual term is no being dealt with at present.

(21) “Concerning the same [i.e. the conversion of subject and predicate] it should be noted that “subject” and “predicate” can name two things. In one way, they name the intention of “predicate” and “subject,” and in another the realities subject to these intentions, just as “universal” names the intention of universality and the reality subject to universality. And this must be understood in the same way of both subject and predicate. But what the reason is for this

⁷It has a *ratio significandi* as long as it signifies something, and is not a mere noise.

⁸Its *modus significandi* is the way in which it fits into a meaningful sentence, and so each part of speech has its own *modus significandi*.

⁹The proper quality is apparently implied in the word “this,” since, of course, “human being” does not signify a quality proper to the individual designated by the individual term.

distinction will appear from the chapter on universals. But it is plain that the subject and predicate, when they are certain intentions formally distinct from one another by reason of opposition, in that case a predicate can in no way be made of a subject, or vice versa.

But if “subject” and “predicate” name the realities made subject and predicated, this again can occur in two ways: we can either understand “predicate” in such a way that it has in itself a mark of being said of something else, and in this way a predicate is only a verb, and this is apparent from the Philosopher in *De Interpretatione*, where he defines “verb”, saying “a verb is what signifies time and is always a mark of being said of something else.”¹⁰ And in this way again a predicate cannot be made of the subject or vice versa. And the reason for this is that composition is conveyed by the verb, and the composition is a certain *modus significandi* directing the predicate first and principally to the subject, but it can never become a subject. And because of this composition conveyed by the verb, a predicate considered in this way cannot become a subject.

In another way we can consider by “predicate” that which is put in the predicate position (*a parte praedicati*) — and such a predicate is not a verb, but it can be a name, as in “a human being is an animal,” or a pronoun as in “a human being am I,” or a participle as in “I am a reading thing.” A subject can very well be made from this sort of predicate, for example, in saying “an animal is a human being,” and so on for the others, and since a predicate is made from the subject and conversely, and sometimes not, therefore conversion is possible. But taking a subject and predicate in the first way, namely for the intentions of subject and predicate, and also in the second way, as the predicate conveys composition, which composition, I hold, is incompatible with a subject, in this way a subject cannot be made from a predicate or vice versa. And therefore in this way conversion is impossible. But this, as has been said, is possible, understanding that a subject is made from the predicate—that is, from what occurs in the place of the predicate but does not have its form, i.e. a mark of being said of another—and vice versa. For example, as blackness cannot be made from whiteness, nor vice versa, but it is certainly true of the thing subject to whiteness that it can be made black, and understanding “predicate” in this way conversion is possible. So, as regards the argument to the contrary, which asks how a predicate can be converted into a subject and vice versa, it must be answered that it is in the way we have said. So it is clear that conversion is in one way possible, and in another way not.

(22) [De Rijk remarks that Simon divides negation into *negatio negans* and *negatio infinitans*, and then goes on:] Since division is a privation of composition, it cannot be cognized except through a habit . . . so the nature of division cannot be cognized unless the nature of composition is cognized. Because of this it should be noted that composition is of two sorts. One sort is the composition of things, for instance, of stones, of which composition nothing will be said here. The other, however, is the composition of *modi significandi* or *modi intelligendi*, and this kind of composition is of two sorts. One sort is the composition of quality with substance, and the other is the composition of action with substance. But composition of quality with substance is of two sorts. One is of substantial quality with substance, and this sort is conveyed by names signifying a substance or subject. For example, in saying “human being,” which is the same as “something having humanity,” by “something having” I understand a subject, and by

¹⁰Aristotle, *De Interpretatione* 3, 16b6, but the Greek has “it is a sign of things said of something else.”

“humanity” I understand a substantial quality. Another is composition of accidental quality with substance. And this sort is conveyed by names of accidents, for instance by adjectives, as in saying “[the] white,” which has the same force as “something having whiteness,”¹¹ and by “something having” I understand the subject, and by “whiteness” an accidental quality. Again, another sort is the composition of action with substance, and this is of two kinds. One kind is composition of action with intrinsic substance, another is composition of action with extrinsic substance. With intrinsic substance, as in saying “it runs.”¹² It is a verb, and a verb conveys a thing by a *modus concreti*; but a *concretum* conveys a nature subject to the nature of an accident. So “it runs” has the same force as “some reality falls under running.” By this I touch on action which is composed with that sort of substance. Another is composition of action with an extrinsic substance. And this is of two sorts: One sort is designated composition with intrinsic substance through something distant For instance, in saying “a man runs,” “runs” has composition with man, which is an extrinsic substance. So “runs” signifies its reality by means of something distinct from the substance. Another is designated composition of action with an extrinsic substance by means of something united to it, or not distant from it. And this sort is conveyed by a participle, as in saying “a running human being.”¹³

From this, I say to the matter at hand that the sort of negation which removes qualitative and substantial and accidental composition, and composition of action from intrinsic substance, is called infinitating negation. But that negation which removes composition of action from an extrinsic substance, whether designated through something distant or not, this sort is called negating negation.¹⁴ And speaking in this way, “a human being does not run,” there are two sorts of composition: In this word “run” there is composition of running with human being. Now if the negation negates composition of running from human being, it is called negating negation. The second is the composition in this word “runs” not with respect to “human being,” but with respect to an intrinsic substance, for it has the same force as “something that is subject to

¹¹In Latin, which gets along without any equivalent of the articles “the” or “a, an” (though when ambiguity threatens suitable pronouns are pressed into service to take their place), the adjective standing alone quite readily conveys something subject to the quality, so “*albus*” might easily mean “a white thing” or “the white thing.”

¹²In Latin the verb standing alone implies the subject, which is specified by its inflection. So “*currit*” means “it runs,” “*currimus*” means “we run,” and so on. So, as with the adjective, the word, though standing alone, nonetheless conveys a composition of subject and predicate.

¹³Again, in Latin a single word conveys the composition. Here “*currens*,” will mean “a running thing.” In fact, the participle is more often used this way than as an adjective.

¹⁴The distinction can be seen if one considers two ways of negating “a human being runs.” In the first way we produce the ‘infinite’ sentence, “a non-man runs,” removing the intrinsic composition implicit in “a human being,” which conveys something that is a human being. So we negate this, and say that something that is *not* a human being runs. In the second way, the direct contradictory of the sentence, “a human being does not run,” is produced, by removing the composition between the verb and subject, which are distant from one another, so that this is an extrinsic composition.

running.” The negation that takes away this sort of composition of action with substance is called infinitating negation. Similarly, that is called negating negation that takes away composition of action with extrinsic substance; that is called infinitating which takes away composition of quality from intrinsic substance.

From this, two differences between infinitating and negating negation can be given. The first is the infinitating negation is negation of a term only, but negating negation is negation of a sentence. The second difference is that negating negation leaves the power of a word unaffected, and does not fall into the same part with the word to which it is adjoined, but infinitating negation does fall into the same part with the word to which it is adjoined, so when we say “non-running” that is one word, according to the logician. ¹⁵ **The third difference is that negating negation leaves no deposit in the word to which it is adjoined, but infinitating negation does leave such a deposit in the word to which it is adjoined. The Philosopher in the *Posterior Analytics* says that every superior is predicated of its inferior either affirmatively or negatively. And he speaks there of infinitating negation, as in “no human is a non-animal,”¹⁶ since if this negation is not taken for infinitating negation, then a superior will not be predicated of an inferior, since “a non-human is an animal” has the same force as “something other than a human being is an animal.”**

On De Praedicabilibus

(23) Next it must be known what it is to be predicated. For this is nothing other than for “something to be attributed to another,” or to be in the other, through the sign of composition which is conveyed by the verb “is.” So everything that is predicated of another must itself inhere in and be in that other. Now nothing is in itself, as the Philosopher says in *Physics* IV, therefore an individual is not strictly speaking predicated of itself. Therefore it is not a predicable.

¹⁵Emending “*non currit*” to “*non currens*.”

¹⁶The problem is this: both “animal” and “non-animal” are superior to human being, and so, how is “non-animal” to be predicated of human being? (A) “(Every) human being is non-animal” won’t work, since it is false. So try negating negation. This gives us (B) “it is not the case that every human being is a non-animal,” which means “some human being is not a non-animal,” which is true enough, but is not universal, so that non-animal is only negatively predicated by negating negation of *some* human being here. (C) “No human being is a non-animal” is true, and universal—in fact, it is equivalent to “Every human being is an animal”—but it is not a case of negating negation, but is infinitating negation. If it is taken as negating negation, we have (B), which we have seen is to be rejected. I don’t see how to make sense of the last part of what is said here. The “no” in “no human is a non-animal” would seem to imply neither a negating nor an infinitating negation. Perhaps we could take it to mean “each and every human being is not-a-non-animal,” in which the “not” is infinitating negation (giving us a “non-non-animal”), and taking it to be negating negation gives us (B) again. The discussion of (D) “a non-human is an animal” seems to change the subject and be unrelated to the sentences preceding, though it is reasonable to make some remark on infinitating negation in the subject.

(24) “*Nunc autem.*” There is a rule in logic that every concrete name of an accident signifies two things, namely the accidental form and the reality subject to such an accidental form. And this is reasonable, for according to the Philosopher in *De Interpretatione* to signify is to establish a concept. Now it is plain that a name of an accident being pronounced, both the accidental form and the thing subject to it are signified through this name. For example, when we say “the white,” I understand here the accidental form, that is whiteness, and also the reality subject to this form. And since this is the way it is in a concrete case or a real accident, it will be this way in a concrete case of an intentional accident, so that when we have a concrete case of a genus, such an intentional accident will signify two things, namely the intention of genus and with this the reality subject to that intention. So through the genus animal I understand the intention, and with this the animal which is the reality subject to that intention. Thus, from what has been said it is clear that we understand by logical genus nothing other than “a second intention, caused by the understanding, and applied to an understood reality, denoting the essential and quidditative nature with respect to the forms it supposits, and in relation to its species through the difference.” And I call it a second intention because the genus which is at issue here is a logical, intentional entity. For a second intention belongs to an intention of logic, since Avicenna says the logic is about second intentions joined to first intentions. And therefore genus is a second intention. And I say “caused by the understanding,” for just as to be in reality is caused by something, intentional being is caused by the understanding. I say “applied to an understood thing” because genus, being a second intention, cannot be founded on a reality taken absolutely, but only as it is understood, since a second intention, which is a second concept, is founded on second concepts, as a first intention is founded on first concepts. And I hold, “denoting the essential and quidditative nature etc.,” since genus is a certain relational entity. So as Albert says in his logic, genus is “a second intention caused by the understanding, and applied to an understood reality, and denoting an essential and quidditative condition with respect to the form which is its *suppositum*, and in relation to species by means of differences, and accidentally.

(25) “*Definitur autem sic genus*” It is customarily doubted, concerning this definition, what is defined here, that is, whether the concept, the reality subject to it, or both, are defined. It is certain that he does not understand formally by genus the concept alone, or the reality subject to it alone, but he understands a certain second intention caused by the understanding and applied to an understood reality etc., as has been shown. And according to the Philosopher in *Metaphysics* IV, what the name signifies is the definition. And therefore the name “genus” formally signifies the concept of genus, not absolutely, but as it is applied to the reality. So when he says a “a genus is what is predicated,” the reality is not defined absolutely here, since the reality considered absolutely is not predicated, since to be predicated is an act of reason. Hence the reality considered absolutely and as it is understood is not defined here, since such a thing is not predicated.

Similarly, a reality considered as it is understood absolutely is not defined here, since such a thing is not predicated of *supposita*, because such an absolutely understood reality is abstracted from its *supposita*. But what is abstracted from something cannot be predicated. And therefore the reality considered absolutely in the understanding is not defined here.

But in the third place, I hold that the concept of genus is formally defined here as such, or as applied to such a reality by the understanding, caused in that reality by the understanding, and it denotes an essential habit toward *supposita* related among themselves formally and according

to different species. This is the way it is defined, as has been said. And the reason is that a definition is whatever a name indicates, so that the name “genus” formally indicates the intention of genus, not absolutely, but as it is applied to a reality, therefore genus is defined here as it is a second intention applied to a reality. And since second intentions are not known to us except through the objects upon which they are founded, the concept of these which is the cause of these intentions cannot manifest itself except through these objects. Therefore the author reasonably shows this intention “genus” by means of an object upon which it is founded, when he says “for instance, animal.” And this definition is said to be understood: Genus is always a second intention caused by the intellect and applied to a reality, which is predicated of more than one, etc.

(26) Note that individuals are of two sorts, some undesignated (*vagum*), some designated (*signatum*). And undesignated individual is convertible with its species so far as its *supposita* are concerned; and such an individual is predicated of more than one as its species, and of those of which its species is predicated—so, for instance, “some human being” is predicated of the same *supposita* of which “human being” is predicated. And the author does not understand what he says to apply such an individual.

But an individual can be designated in three ways. One is because it is designated by a proper naming, as Peter and that sort of individual, and such an individual is predicated essentially of one only. The second is an individual designated by a pronominal description or by denomination through a proper quality, as when we say “this man runs.” The third is called an individual designated by some common name by appropriation, as when we say “Africanus, which is common name of everyone from Africa, but was appropriated for Scipio because he conquered Africa. A fourth is an individual designated by a circumlocution, as, for instance, when we say “son of Sophroniscus,” as a circumlocution for “Socrates.”

On De Praedicamentis (The Categories)

(27) . . . it must be known that equivocals are of two sorts. Some are equivocal in their *modi significandi*, as “*fortis*” conveys different *modi significandi* by one utterance.¹⁷ Another sort is equivocal in what it signifies, and this in two ways. Some are equivocal because of chance, as that which is equivocal and signifies principally more than one, as “*canis*” signifies more than one and signifies one in a way not depending on the other, since these things are by chance, and have no relation to one another.¹⁸ The other sort is equivocal of what it signifies because of the concept, because it does not signify more than one on an equal basis, but signifies more than one through some relation which they have to one another, so that one is prior and the other posterior, as, for instance, “*ens*” is said primarily of substance, but afterwards of accidents.

On De Locis

(28) To make clear what has been said, and what is to be said, at this point, it must be

¹⁷“*Fortis*” may be either in the genitive or the nominative case.

¹⁸“*Canis*” signifies either dogs, or the dog-star, Sirius.

understood that question, premise, and other things of this sort are certain intentions. But there are two sorts of intentions, first and second intentions. A first intention is a first concept, or a concept of a reality by which the soul grasps the reality and the nature of the reality in itself and under the essential concept of it as the reality is abstracted from all individual conditions. For example, when the soul understands a human being insofar as it is a human being, it understands it insofar as it is an animal and rational. It is certain that then it understands human being insofar as it falls under its essential concept, and such a concept is called a first intention.

But a second intention is a second concept of a reality, by which the soul grasps the reality neither in itself nor under an essential concept, but under an accidental or relations (*respectivo*) concept. For example, when the soul understands human being not as human being or animal or rational, but as species or definition or something defined, such a concept of human being is called a second intention.

So species, genus, and difference, syllogism and argument, and the rest, are certain second intentions. These second intentions, however, are of three sorts, for some are simple and incomplex, as those which are founded on simple and incomplex objects, such as species, genus, and the like. For a genus is founded on animal, and animal is something simple; species on human being, and human being is something simple, since they are caused by a first operation¹⁹ of the intellect, namely the grasping of simples. Others are composite or complex, as those which are founded on composite and complex objects, such as statement, premise, and the like. And they are called complex because they are founded on the inherence of the predicate in the subject, or else because they are caused by a second operation of the intellect, namely the composition and division of simples. Others are more complex or composite, for instance, those founded on more complex objects, such as processes of reasoning, like syllogism, topic, and argument, or else they are called more complex because they are caused by a third operation of the intellect, namely reasoning.²⁰ And notice that all of these intentions are simple taken in themselves, because it is obvious when I say “syllogism” or “premise” that it is simple. But considering these things as they are related to the objects on which they are founded, some are simple, some composite, some more composite, as has been said.

Notice also that although these intentions differ formally and in species, they can be founded on one and the same object or foundation, considered in various ways, as Avicenna says in his *Logic*, in the third book about the mixing of universals. For he says that it is certainly possible that different second intentions should be founded on one reality, and he gives an example: for instance, sensible is a species in respect of the individual, and a genus in respect of what is seen and heard and the other particular sensibles, and a difference in respect of animate body, and put next to it, as appears in the tree of Porphyry, and is a property of animal because it is caused by the proper essential principles of animal, and is a common accident of cow and man, and so on. Applying this to the matter at hand, although these intentions differ formally, namely question, premise, etc., still they are founded on one and the same foundation, an on the same

¹⁹The sense seems to be “an operation of the intellect which requires no prior operation to be performed.” A second operation requires a previous operation, for instance, the grasp of simples is required in order to carry out composition.

²⁰Reasoning depends on the formation of propositions (composition and division), which depends in its turn on the grasp of simples. Hence it is a third order operation.

reality under diverse respects. So when “a human being will be” is said, insofar as there is truth or falsehood in it without qualification, it is a statement, but insofar as there is a doubt regarding it, it is a question. And so also for the more complex cases, for it is certainly possible that a syllogism, topic, argument, and other things should be founded on one and same rational discourse. So a gloss: “according to substance,” that is, in the reality subject to these intentions, and not the intention itself.

(29) [On the lemma “*Locus maxima*”] There is something to be noted in support of what has been said, for he says that some propositions are known *per se*, since, according to the Philosopher in the *De Anima* III, as sensibles are related to the senses, in this way intelligibles are related to the intellect. Now there are some among sensibles that present themselves first to the notice of the senses in such way that the senses must cognize all other sensibles through the cognition of these. In such a way sound occurs first to the hearing, and through cognition of this it cognizes others, such as a bell or a human being. And it is the same with vision. And moreover, in the same way in the genus of intelligibles there are some which occur first to the intellect and through which the intellect cognizes all the others. But intelligibles are of two sorts: some are simple and incomplex, some complex. The simple and incomplex are, for instance, being and one and the like. For being is the first intelligible, which occurs first and *per se* to the intellect which grasps <simple> things, and through the cognition of which it understands everything. Similarly, in the genus of composites it is necessary that there be some which occur first the composing and dividing intellect. And of this sort are “being is being,” or the *dici de omni et nullo*, or “every whole is greater etc.” And such propositions are said to be known *per se* and always by the composing and dividing intellect. It must not be understood, then, that some proposition is known *per se* by the composing and dividing intellect, but such propositions are known in such a way that through knowledge of them the intellect can apply such propositions to many. And therefore such propositions are said to be known *per se*. Moreover, they are called common conceptions of the soul, since through these all others that are conceived by the composing and dividing intellect, in every case, are conceived by it. And they are called universal since each extends in every case to the proof of many. They are called axioms (*dignitates*) since they are worthy (*digna*) of belief. and they are said to be known *per se* not because there is nothing through the can be cognized (indeed, they are cognized through their own terms), but because they are composed of terms that are known. So the Philosopher in *Posterior Analytics* I says we cognize first principles insofar as we know their terms. But they are called maximal propositions since they have the greatest power, since according to the Philosopher in *De Caeli et Mundo* I, although principles are the smallest in quantity, they are the greatest in power. So when we say that a maximal proposition is a proposition known *per se* by the composing and dividing intellect, without qualification or with respect to a genus, to understand this note that a proposition is said to be known in two ways: without qualification or with respect to a genus. A proposition known without qualification is known in every genus, for example, the *dici de omni et nullo*, and the like. Propositions known in a genus are those which are known only in one genus. For example, this proposition is known *per se* in grammar, “wherever there is a proportion of *modi significandi*, there is a true construction.” In the same way this is known *per se* in logic, “of whatever a definition is predicated the defined is as well,” and the like. So according to the Philosopher in the *Topics*, each one of these principles is trustworthy in its own genus.

(30) Next it should be noted that since a definition is an expression signifying the what it is of a reality, definition is divided in the same way that the being of a reality is divided. But according to the Philosopher in *Metaphysics* II, the being of a reality is of two sorts, for one sort is the being of a reality outside the soul, and the other of a reality in the soul. But the being of a reality outside the soul is of three sorts. For one is essential, one mathematical, and one divine or metaphysical being.

That is called the essential being of a reality according to which the reality is joined with motion and sensible matter according to being and reason. And according to this we have natural definitions, which are given through sensible matter. So if a natural philosopher were required to define human being, he would define it through bone and flesh, saying “a human being is what is composed flesh and bones and soul and intellect.” And if another natural philosopher had to define this word “flesh,” he would say “flesh is what is composed of warmth and moisture.”

Another sort is mathematical being, according to which a thing is joined with motion and sensible matter according to being, but abstracted from them according to reason. And in this way we have mathematical definitions. So if a mathematician is required to define human being, neither bone nor flesh nor any sensible material would enter into his definition, but intelligible matter, such as a continuum, would enter into it, so he would say “A curve is a continuous depression in a surface.”

The divine or metaphysical being of a reality is that according to which things are abstracted according to both being and reason and from every sort of matter, either sensible or intelligible. And according to this way there are metaphysical definitions, in which sensible matter ought not to be given through such as are abstracted from motion and matter... From this it is apparent those define “God” badly who say “God is the best eternal animal . . .”²¹

But being in the soul is of three sorts. One sort is grammatical, another is logical, and a third rhetorical. And in this way we have three definitions, namely grammatical, logical and rhetorical. For such sciences are about a being of reason, which has being in the soul. And these definitions differ, since a grammatical definition is always given in relation to the consignification by the word itself of some characteristic of a reality, like name, part of speech, etc. But a logical definition is given in relation to a concept (*intellectus*), for the logician says that a universal is what is predicated of many essentially, and this definition is given using the verb “to be predicated,” and being predicated is the work of the intellect. But this sort of definition is of two kinds. One kind is given using first intentions, for instance, “a human being is a rational, mortal animal,” since “rational” belongs to the essential concept of a human being. The other kind is given using second intentions, for instance, “genus is what is predicated etc.,” for to be predicated is an act of reason. A rhetorical definition is given using relations and with respect to moral, political and civil acts, and we will see about this sort of definition elsewhere.

(31) In connection with this it should be noted that there is denomination in five ways. In

²¹A metaphysical definition would define a natural thing in terms of the ideal it realizes, and so in terms of a genus and difference, without mentioning parts of the thing or the structure by which it realizes the ideal. So a metaphysical definition of human being might specify that it is a rational animal, and if animal is to be defined with such a definition, one might say it is a self-moved (but created) thing. But one would nowhere in the definition describe how to realize self-moved things or rational thing in nature by putting it together out of parts in a particular way.

the first way it occurs from a simple, or the least, as “grammar” is denominated from letters . . . and it is so called from the Greek “*gramma*,” which is letter in English, and “*ycos*,” or “science,” and so it is “the science of letters,” as it were. In the second way there is denomination from the more formal, as the concrete is denominated from the abstract. For instance, “the white” is so-called from whiteness, for even though “the white” conveys both whiteness and a subject of it, still, since whiteness is in itself more formal, it is denominated from it. In the third way there is denomination from an end. So the Philosopher, in *De Anima* II, “it is appropriate that all these are named from the end,” and he means these three capacities, the nutritive, vegetative and augmentative, are denominated from “augmentative.” In the fourth way, there is denomination from the more common, and in this way everyone who is from Cologne, in every case . . . call themselves “Colognians,” since the name of that city is more common than the names of the villages. In the fifth way denomination is made from the more important and preeminent. So an army is denominated from its leader. Applying this to the matter at hand, I hold that topic ought to be denominated from the basis of the inference, as from the more important, since the basis of the inference is more important than what is deduced.

(32) Predicates are of two sorts, essential and accidental. Essential predicates are those which are essentially predicated of their inferior parts, for instance, animal of human being. Accidental predicates are of two sorts, for some are real . . . and others are intentional, which are said to belong to matter, or the difference between superior and inferior, as, for instance, genus or species.

Applying this to the matter at hand, I hold that if you ask whether a genus is predicated of a species in respect of essential predicates, in this way we can very well proceed from genus to species affirmatively—for instance, “an animal is a substance, therefore a human being is a substance.”²² But such a process or consequence holds only in virtue of the matter, and not because of the form. But if you ask whether we can proceed from genus to species in respect of real accidental predicates, I hold that we can take “species in two ways, determinately or indeterminately. If species is taken indeterminately, then species certainly follows genus in respect of accidental real predicates—for instance, “an animal runs, therefore a certain kind of animal runs.” But if you take species determinately, I hold that it is not valid, since there will be a false consequence—for instance, “an animal runs, therefore a man runs,” for there is a fallacy here. But if you ask whether a process can be made from genus to species affirmatively, in respect of accidental predicates, I hold that this can in no way take place, for “animal is a genus, therefore man is a genus” does not follow, since such predicates belong to the difference between the superior from the inferior.

(33) [Simon gives, in addition to the other sorts of whole, “*totum copulativum*,” “*totum disiunctivum*,” “*totum virtuale*,” and “*totum successivum*,” and rules for each.]

²²Presumably it is not so clear that one can proceed negatively, for instance, “an animal is not (essentially) rational, therefore a human being is not (essentially) rational.”