SAINT ALBERT THE GREAT

# On the Predicables

*De Praedicabilibus*

SABBATISMUS

Saint Albert the Great (1200–1280)
De Praedicabilibus · On the Predicables

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### CHAPTER I — *Whether Logic is a science and a specific one?*

For those first intending to treat of logic, it must be considered what kind of science logic is, and whether it is any part of Philosophy, and for what it is necessary, and of what utility: then however of what it is about, and what its division is: so that, all its parts having been possessed, it may be known when it is perfectly or imperfectly handed down or described. For concerning all these things the Ancients seem to say different things. For some of the Ancients contended that logic is no science, saying that that which is the method of every science or doctrine cannot be a science. But logic is the method of every doctrine: because everyone who teaches, or tries to assert something, uses some kind of persuasion: but every persuasion through speech is logic, whether he who teaches or persuades uses a syllogism, or an enthymeme, or induction, or an example. The method therefore of every doctrine is logic. And thus the method of every doctrine is the science of logic. Therefore there is no special doctrine which ought to be called logic. On account of which also Aristotle in the second book of his *First Philosophy*, and similarly Averroes say that the method of every science is the science itself which is and is called logic, and that science and the method of science cannot be learned at the same time, but it is necessary first to learn the method, and then through the method already perfectly apprehended, to attempt to learn science.

But they have not sufficiently considered, that although sciences are many, and each has a special method, which differs

from the method of another, just as each science differs from another: there is however one common method of science through something common which is in every science. And this is that through the investigation of reason from the known one comes to the knowledge of the unknown: for this happens in every science in whatever way spoken of, whether it be demonstrative or non-demonstrative. And by grace of that common thing, there is in every science one common method of every science. And this method is through the act of reason, which is reasoning or argumentation, proceeding from the knowledge of the known into the science of that which was unknown, according to what Isaac says in the book of *Definitions*, defining reason, that reason is the intellectual power of the soul, making the cause run into the caused. Calling cause generally and broadly everything which according to the intellect simply, or as far as we are concerned, precedes as known, through the knowledge of which by the lead of reason one comes into the notice of the unknown. But this method, although it is common through this that it is placed in any science, nevertheless considered in itself and not mixed with the sciences, is something distinct by itself from all others. And this method considered in this way, can be the subject of a science, and there is a special science about it: in which science nevertheless it

is necessary that the same method be observed, because the science of such a method cannot be taught except in a logical way: for as Avicenna says, this method is indwelt in all men (through this that they are intellectual in some way by nature). But that which is in nature is imperfect: but it is perfected through applied art. For that which is in nature is a seed-bed and imperfect, and existing as if in potency. For from this that man is intellectual and the stratum of intelligence, in which are spread the intellectual forms in the act of the light of intelligence, and through the intellect he is compositive of one form with another through composition or division, man becomes admirative of those things which he comprehends by receiving through sense and intellect, or through intellect alone. But through this that he is admirative, he is suspended to inquisition, and through inquisition he compares one to another. But through the comparison of one with another, he is deduced from that which is known to the knowledge of the unknown. And thus this method of logic indeed begins from nature: but it is perfected by art, and receives perfection by use and exercise: just as Victorinus also very well says, that *nature makes one able, art makes one easy, use however makes one powerful*: for thus by nature all arts and all sciences are perfect. And hence it is, that art imitates nature. And as Hesiod says: Some are perfect and good in such things through nature alone: but some not through nature, but because Teachers of such things place them in the soul: and those become good placing

such things in the soul, through the comprehension of the principles of art and science: but some truly are so erroneous, that they have nothing of such things in themselves, nor can they receive them from others, whom Hesiod reputes useless for knowing the true and the good.

It is clear therefore that logic is one of the special sciences, just as in the smith's craft in which the art of making a hammer is special: the use of which nevertheless is applied to all things which are made by the smith's art. For investigation, or reason investigating the unknown through the known, is a certain special thing, which has passions and differences and parts and principles: which while they are proved concerning it, a special art and science is produced, the use of which is afterwards applied to all sciences. Thus therefore it is clear, that logic generally spoken of, is a special science, about which must now be treated.

### CHAPTER II — *Whether logic is a part of philosophy?*

But some have [contended] that this science which is the method of all philosophy, [is] no part...

part of philosophy, contending that there are only three parts of philosophy, namely physics, mathematics or the disciplinable, and metaphysics or the divine. For since definition, saying what and for what a thing is, is the medium in science, and definition cannot be varied except in a threefold way, namely that it either conceives of sensible matter, which is with motion and

change; or conceives of intelligible matter, whose essence is not with motion and change according to reason, although according to being it is in matter which is with change and motion, such as is magnitude and number; or conceives of sensible matter neither according to essence nor according to being: it seems that philosophy has only three essential parts, as also Aristotle seems to say. On account of which some say that the science of logic or rational science is no part of philosophy. They also add for the confirmation of their assertion, that the method of no thing, along with the thing of which it is the method, comes into the division of its own genus. But it is clear, that logic generally spoken of is the method of philosophy. Therefore it does not seem to come into the division of philosophy, nor does it seem to be contained in any part of this genus which is philosophy.

But some others impugning this opinion say that it is the intention of general philosophy to comprehend the truth of all, of all beings in whatever way they are, as much as it is possible for man to comprehend it according to reason and intellect. But those things which are, are said to be either from our work, or from will, or even from the intellect seeking science: or from nature generally spoken of, which cannot be caused by our work. And since those things which are from nature are the causes of our science, and we are not the cause of them, there cannot be practical science about them. It remains therefore, that concerning such things among us there is only

contemplative science, which is perfected by the light of intelligence.

But of those things of which we are the cause through will, there cannot be speculative science among us, but only practical. For in any scible the principles and causes and elements of knowing are the same as the principles of being: because otherwise it would follow, that that which is known by us, is not known according to that which it is, but rather would be known according to that which it is not. And thus everything that is known would be known in a false way, which is absurd. It remains therefore that of beings caused by nature, there cannot be science through those things which are from us, but rather the science of them is had from the principles causing their essence and being in nature, which are in all only through contemplation. But of those things which are from us, there cannot be true science among us except through those principles which are in us, through which we are the cause of them, which are from us: the end of which is not the true, but the good, which is good for us. Similarly therefore it will be the intention of some philosophy to comprehend the truth of that which is in us, according to the reason by which it strives to comprehend the truth of that which by the lead of reason is the way into all knowledge of all those things whose knowledge happens in us through those things which are known among us, from which we set out into the science of the unknown. Therefore even the science of logic which is rational will be of the intention of phi-

losophy. Moreover of this they say is a sign, that among the Peripatetics philosophy in the first division is divided into three parts, namely into physics generally spoken of, and ethics generally spoken of, and rational similarly accepted. But I say physics generally spoken of, which comprehends both natural and disciplinal and divine. But general ethics, which contains in itself both monastic and economic and civil. But general rational

which comprehends every mode of arriving from the known to the unknown in whatever mode: which is done through many kinds of probations, as will be shown in the following. It is manifest therefore, that logic is some part of philosophy.

Moreover if anything is of the intention of philosophy: then this especially will be of the intention of philosophy, without which no one in philosophy can arrive at any knowledge. But one ignorant of logic can acquire no perfect knowledge of the unknown, because he is ignorant of the mode by which it is necessary to arrive from the known to the notice of the unknown. It seems therefore that logic is especially of the intention of philosophy.

But Avicenna and Alfarabi say that this contention is frivolous and unfruitful. Frivolous indeed, because in contradicting each other they do not refer their intention to the same thing said in the same mode. For those saying that logic is not a part of philosophy, call philosophy real and contemplative. But those contradicting them,

and saying that logic is a part of philosophy, call philosophy every comprehension of truth existing in whatever way, whether in itself, or in us knowing or operating. And thus they frivolously contend not referring their intention to the same thing. Unfruitful also is the contention of this, because it declares nothing about the proposed intention. And thus it profits nothing for the proposition.

Therefore logic is one of the parts of philosophy generally speaking, which all admirable intends to comprehend truth according to the mode, according to which it is possible to comprehend it from the proper principles of that which is admired. For this is varied according to the property of each and every science. For just as in real philosophy according to the diversity of diffusion (which is the middle in demonstration) philosophy is varied, so in logical or rational things according to the variations of ratiocination the science, that is, the mode of knowing, is varied. For if reason proceeds from signs making presumption, there will be one part of general logic which is called rhetoric. But if it proceeds from fictions making delight or abomination, there will be another part of logic which is called poesis or poetics. But if it proceeds from common probabilia, which are found in many cases, there will be another part which is called dialectic. But if it proceeds from essential and proper causes, there will be another part which is called demonstrative. If from those things which seem and are not, there will be another part which is called so-

phistic. But if it teaches to proceed from cautions provoking the respondent, there will be another part of general logic which is called tentative: and thus it is easy to understand concerning all others.

But of these things which have been said, Avicenna posits the reason saying that all things are to be accepted in three ways, namely that first they be accepted in the principles of their essence: secondly in the being which they have in proper singulars: but thirdly according as they are accepted in the intellect. For many things according to the principles of their essence are separated from motion and matter, which nevertheless according to being are or can be in motion and matter, such as substance, unity, identity, multitude, and diversity, and other such things, which indeed in the principles of their essence are ungenerable and incorruptible: and in this mode according to Plato they are the formal principles of things, because of which Plato says such things are ungenerable and incorruptible. And if such things are said to be generated or corrupted, this will not be except according to accident, that is, according to the being which they have in generated and corrupted things. But the acceptance of a thing according to the being which it has in supposita, will be according to the existence of those supposita, and according to the definition which they can have according to the being which they have in them. But the acceptance of things according as they are in the intellect,

is according to the knowledge which they have, not according to what they are in themselves, but according to as they are received through the intellect. And according to all these three modes there are also consequent accidents which are called its own proper passions. And thus in any of these three modes philosophy intends to acquire the truth about them. And this is through some lead of reason which belongs to logic. For things as they have being in the soul, have proper accidents, such as for something to be known by man, and for something to be unknown: and when compared to each other they join in something, it will be the way of reason, proceeding from the known to the unknown, through the comparison of the known to the unknown according to the agreement or difference of the known to the unknown. From which it is comprehended, that one is composed with another, and is predicated of it: or one is divided from another, and is removed from it: for according to this mode one comes from one to the other. In this way therefore logic is of the intention of general philosophy.

### CHAPTER III — *On the utility of dialectic.*

Logic is most highly necessary and useful to philosophy. For from this that logic teaches how the unknown becomes known, it is clear that in no philosophy can anything become known except through the faculty of the doctrine of logic. For it is, as Boethius says in the *Topics*, the reason of discoursing, that is, teaching how

one must discourse about anything, which is distributed into two parts, as he says, namely the science of finding, which the Greeks called topics: and the science of judging, which the Greeks called analytics, but the Latins called resolutory. But it is clear that without discourse and inquisition one does not come from the known to the unknown: which discourse is nothing else but an inquisition discoursing how the known is compared to the unknown, how it relates to it, as a cause, or a principle, or a sign, or a conjecture to it: or in the contrary way as repugnant to it, without which in no science can anything be known. As far as this is concerned therefore, that science is teaching to discourse about every thing, it is not only useful in itself, but it is also necessary for everything which we intend to know. On account of which Aristotle frequently says in his various books, that the cause of the error of the ancients was, because they did not find or have the science of logic. For logic teaches the principles how this and by what principles and by what arguments one must discourse about any scible: which method unless it be known, the scible cannot be found; because he who seeks the method of finding the science of that scible does not have the "wherefore" (propter quid). Also Aristotle says that the method of knowing must be learned before any science so that through that method the science of any scible may be found. For since science is the habit of a conclusion, it is necessary that he who receives science knows how to conclude. But he does not know

how to conclude, who does not know that he ought to conclude. And since nothing ought to be concluded except a question, it is necessary that he knows what and how that which is intended to be concluded is to be sought. Moreover he does not know how to conclude who does not know from what and what kind and by what conclusion it is to be concluded. But no philosophy teaches all these things except only logic. Therefore it is not only useful and adminiculating to all sciences, but also necessary. On account of which those not knowing logic, even that which they seem to know, they do not know that they know: because they do not know how each thing ought to be known, and how it is to be proved or disproved. Moreover such persons have no power in their known things, while they do not know why they assent to their known things, nor how they ought to respond to those contradicting. But the logician knows this, if [he is] perfectly

he has obtained the science of discoursing concerning anything. Moreover, the one ignorant of logic, although he may seem to know something, nevertheless does not know, as we have already said above, since he does not know the reason of his known thing: and he relates to the known thing and to the act of knowing, just as fire to burning wood. And therefore it is the mark of the one who knows (as Aristotle teaches in his *First Philosophy*) to be able to teach. But he cannot teach, who does not know how to expound the reason of what is known. But he does not know how to expound the reason of

his known thing, who does not know the causes and principles of logic. Therefore such a one will be even in those things which he seems to know, just as an idiot relates to one having letters. Such a one also detects neither his own error nor that of another, because he does not have the habit through which he may judge whether he knows rightly what he knows, or not rightly.

Moreover through the fact that the science of finding any known thing is through the habitudes of one to another, which are called topical or local, by which intellect or opinion or faith or estimation or suspicion is located in another, which is already held within in the mind of the seeker. Without logic one can proceed neither to inquiring, nor to finding anything: nor even when that which is sought is found, can it be known whether it is found or not found. It is manifest therefore, that even in respect to this logic is not only useful, but also is necessary for all philosophy.

Moreover also through the fact that it is the science of judging (because that which is found, is judged whether it is rightly known by its principles) logical science is necessary for all philosophy. But logic teaches this in two ways, teaching to resolve the known thing into principles, namely of consequence which are in the figures and modes of syllogistic consequences: and into the real principles of that which follows just as into immediate and essential causes, convertible with that which is known by conclusion: by which judgment everything that is known, is

as it were weighed, reducing to the equilibrium of reason everything that is sought to be known in all of physics. But this science is not only necessary, but also useful, just as happiness is the good of man according to the most perfect act of the best part of the soul of man, that is, according to the contemplative intellect: nor will the intellect be able to contemplate, unless it knows the principles of contemplation, and knows how to find what it seeks to contemplate, and to judge that very thing which it already contemplates as found. The conclusion is evident; that before all others this science is useful for happiness, without which the act of happiness is not attained, and through which the happy man himself receives the act of unimpeded operation. For this science liberates from phantasies (which seem to be and are not), condemns errors, and shows falsities, and gives the light of right contemplation in all things. Before all others therefore must this science be considered.

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### CHAPTER IV — *Concerning what is logic as its subject?*

But since logic is a contemplative science, teaching how, and through what things one arrives from the known to the notice of the unknown, it is necessary that logic be about this kind of instrument of reason, through which the science of the unknown is acquired through the known in everything which becomes known concerning the unknown. But this is argumentation, according as argumentation is ratiocination

arguing and convincing the mind through the habitude of the known to the unknown concerning the science of the unknown. But among the species of argumentation the principal one is the syllogism. For which reason some have said that the whole of logic is about the syllogism and the parts of the syllogism: determining the common subject of logic according to that which is the principal subject. For faith will not be able to be about all things through the syllogism, because of this, that the dis-

the syllogistic course is only from a universal universally accepted: which in many sciences cannot be, as in rhetorics. Because in those especially local habits are attended to, from which what is sought is concluded through enthymemes. Since therefore logic, as Aristotle says, gives to every science the method of discoursing, and finding, and dijudicating what is sought: it is necessary that it be about such a thing as a subject, which is equally applicable to all in everything. But there are still some things in which from singulars we seek to find what is unknown, as in experimentals, in which we use either a syllogism or induction to receive the universal, and we cannot use a perfect syllogism. On account of which the syllogism cannot be the common subject of logic. On account of this also in the logical [works] which were written by the Ancients, not only is it taught what a syllogism is, and how, and from what it is: but here it is also taught what argumentation is, and what its parts and species are.

However there are some who interpret logic as the same as sermocinal, saying that general logic is the same as the sermocinal science, under which they say are contained grammar, poetry, and rhetoric, and that which they call dialectic. And therefore they say that the subject of general logic is speech, insofar as it is designative of the things which are signified through it. Which opinion Avicenna impugns saying, that speech of itself signifies nothing: for if it signified anything of itself, it would always and among all signify that: which is false. Therefore it receives signification from the pleasure of the institutor. It does not signify therefore except according to as it is conceived in the intellect of the institutor. Such speech (according to as it is thus significative of the concept) man uses to himself and to another. On account of which Damascene says, that it is divided into two, namely into encordial, that is, speech interiorly disposed in the mind, and into that which is from signs, which in being understood is the messenger of his heart, because it announces the concepts of the heart to another. On account of which the logician uses speech to himself and to another by accident, and not by itself: because without designative speech he cannot proceed to the notice of that which is unknown. But he uses reasoning by itself for making notice of that which has been declared. On account of which since the intention of the logician is to teach those things through which by itself one comes into the notice of the unknown through that which is known, the subject of logic

is argumentation: because through argumentation that which is intended is effected.

Moreover incomplex speech although it designates something in the simple intellect, nevertheless does not make faith whether something is or is not, because it does not signify something to be or not to be. But one does not come to the notice of the unknown except through something which makes faith about the unknown, that it is so or not so. Incomplex speech therefore cannot be the instrument through which the intellect is deduced to notice of the unknown: which the logician principally intends. Incomplex speech therefore is not assumed by the logician except by accident, in quantum it is a part of complex speech, which is designative of the composite intellect.

Furthermore complex speech in that it is complex, signifies neither to be nor not to be: for if this were so, every complex speech would signify a thing to be or not to be: and thus a deprecative or optative or subjunctive oration would signify a thing to be or not to be, which is false. Complex speech therefore by this that it is enunciative, signifies a thing to be or not to be: but by this that it signifies a thing to be or not to be, it does not have to argue and make faith about the enunciation. By this therefore that it is enunciative, it is not the instrument through which the logician follows that

which he intends. But it makes faith through this that it is collective to the form of the argument. Argumentation therefore is the instrument

of the logician. But general and teaching logic is about this as about a subject, through using which the logician comes into the science of the unknown through the known. Argumentation therefore is the proper subject of teaching logic. And this is the opinion of the three Philosophers, namely Avicenna, Alfarabi, and Algazel. However all the sermocinal sciences use speech, namely, poetry, and rhetoric, and that which is called logic. Grammar exists simply insofar as the mode of inflections and constructions of the simple and composite intellect is designative in a complex way without knowing about the signified whether it is or is not. But poetry uses it insofar as the pronounced modulus provokes the listener by delight or abomination to doing or fleeing something, on account of which it feigns from various composites and according to metalogy or fable, attempting lies which provoke the listeners. But rhetoric uses speech insofar as it is designative of that through which it intends to persuade. But the logician alone uses speech insofar as it is part of the instrument, through which alone faith is made about the unknown, when the notice of it is argued from the known through the complexion of the argument. Therefore he uses speech on account of another, and not on account of itself. But the proof of this is, that the known (through which the science of the unknown is received) is considered in a twofold way, namely insofar as it is a thing accepted outside the soul of the knower, and insofar as it is a certain notion in the soul of the knower. But it does not produce

notice of the unknown insofar as it is a thing accepted outside the soul of the knower, but rather insofar as it is a notion of the thing existing in the soul of the knower: for thus it is significative and illative of that which is unknown: which unknown the intellect itself perceives in some way by perfect comprehension. In this way therefore the logician considers the significative voices of things and not otherwise. But I say by perfect comprehension: because there are perhaps some so perspicacious, that from the understanding of one complex voice they immediately conceive faith about the unknown: but this is imperfect, and not general. And therefore it is not sufficient, but there is need of argumentation perfectly doing this. If however anyone asks whence that known is produced, from which science and faith of the unknown is received, this is nothing to ask: because in everyone something is known by itself to man and indwelt in nature, through which he can receive the science of the unknown. For otherwise man would be perceptible of no science or discipline, just as a brute animal, if the first principles of knowing were not in man by themselves. Therefore the whole of logic is about argumentation or the syllogism as about a subject. But about other incomplex voices it is on account of that.

### CHAPTER V — *On the division of logic, and what its parts are, and on the voice signifying at pleasure, what and how it signifies.*

But the division of logic, and what its parts are, as Avicenna and Alfarabi say, are to be taken from its intention. But just as was already said before,

logic intends to teach the principles through which through that which is known, one can come into the knowledge of the unknown. But it is either incomplex, about which it is asked what it is: or complex, about which it is asked whether it is true or false. But the incomplex about which it is asked what it is, cannot be known except through definition. But the complex, about which it is asked whether it is true or false, cannot be known except through argumentation. These therefore are the two parts of logic. One indeed so that the principles are taught through which the definition of the thing and the quiddity are known: so that through those principles it may be taught what is the true definition of the thing, and what is not, and what seems to be and is not. But the other so that the principles are taught how through argumentation the truth or falsity of the enunciation is proved. And so that the form of that argumentation may be taught, as to the figure

and as to mode, and quietation or complexion: and that the matter of the same argumentation may be taught. And that it may be taught what seems to be argumentation, and is not: because it has indeed some appearance, but does not have true existence. And that the cautions may be taught by which the opponent or respondent is impeded or moved by some occasion from the conjecture of truth, or to this that he may perfectly see the truth and not be diverted from it.

But the first of these parts either was not handed down by the Ancients, or has not reached

us. Avicenna and Alfarabi also say that this part did not reach the Arabs. Nevertheless Aristotle says in many places that this was the cause of error for the Ancients: because they did not have the art of defining. But what some say, that Aristotle handed this down in the sixth book of the *Topics*, is frivolous: for there he did not hand down the part of defining, but he teaches how to terminate that problem by which it is asked what is in as a definition. Moreover some others say that these things pertain to metaphysics, and that Aristotle handed this down in the seventh and eighth books of the *First Philosophy*: but this is absurd. For Aristotle there teaches what the definers are both of substance and of accident, and what the physical definition is, and how a definition is one and not many, and such things of this kind. But how by defining it is answered to the question by which it is asked what a thing is through essence and quiddity, he does not teach: because this pertains to logic, and not to the first philosophy. It is evident therefore, that this part has not yet reached us. There are also subdivisions of these parts which logic executes: concerning which there will be a treatise in the following.

But because logic considers all things according as they are in the soul or in the intellect of him, who seeks through what is known to him to come into the notice of the unknown: for the sake of these it considers concerning the voice signifying at pleasure, and what and how it signifies: which the older Peripatetics (as Alfarabi

and Algazel say) distinguished in five modes. First indeed and principally a diction signifies that which by first institution it was instituted to signify, as man signifies man, and house signifies house, and so concerning others. In a second mode it is said to signify what consequently is supposed in it, just as house signifies foundation and wall, and any integral whole thus signifies its integral and principal parts. In a third mode when a thing accompanies its signification: just as if a wall is, it signifies a foundation to be, and if a roof is, it signifies a foundation and a wall to be. Fourth when one is in the intellect of the other, just as man signifies animal, and signifies rational. And to this mode is reduced, that accident and passion signify the subject, just as snub signifies nose, and just as white signifies a terminated body, and other such things. Fifth just as opposition signifies opposition, and the opposite signifies the opposite: just as the disgregation of white signifies the aggregation of black, and the motion of cold to the center signifies the motion of hot from the center, and other such things. And this pertains to logic through this, that logic is the science of discoursing: but it cannot be discoursed, as Aristotle says, unless it be given that names signify something, because they do not signify infinite things. For the sake of this it also considers concerning common and incomplex voices.

But complexion and incomplexion do not happen to a thing according as it is a thing, nor even to a voice according as it is a voice: but they

happen to a voice according as it is referred to a simple or composite intellect. But I call an intellect simple, which is simply intuitive of one thing. For such an intellect is not signified to another, except by an incomplex voice or diction.

But I call an intellect composite, which accepts one thing in another or as divided from another: which intellect cannot be designated by an incomplex voice, but rather by a complex one: just as man is an animal, or man walks, or man is not a stone, and such things. For which reason the ancient Peripatetics defining the incomplex said, that an incomplex diction significant at pleasure is that, whose parts signify nothing of the intention of the whole: just as when it is said *homo* [man], so the part which is *ho*, and the other part which is *mo*, signify nothing of the intention of *man*. But if even some name of one simple thing be composite, just as *Adeodatus*, nevertheless, according as it is the name of one simple thing, it is an incomplex diction. And this that I say *Adeo*, and this that I say *datus*, signify nothing of the intention of the whole named by this name *Adeodatus*. But a complex diction is that, whose parts signify something of the intention of the whole, just as when we say, *man walks*; and this diction *man*, and this diction *walks*, signify something of the intention of this complex, *man walks*.

Moreover a voice according as it is referred to the intellect of him who seeks to find the unknown through the known, has that it is divided into common, or universal: and proper,

or singular: for nothing of such things happens to it according as it is referred to the designated thing. For all things are singular which fall under the sense and according as they are constituted by nature: and the common which is in them, is accepted by the intellect. And therefore Aristotle and Boethius say, that the universal is while it is understood, but the singular while it is sensed. Nevertheless the common which is in them, is in three modes, namely that which is in act in many, as man which is actively divisible into many, so that the whole is in singulars through nature and reason: and that which is in act in one, but by the aptitude of nature can be in many, just as this common which is the sun: and that which is neither in act in many, nor in some or one alone, but by aptitude and reason it is not repugnant but that it could be in many, just as a heptagon if we posit, nothing to be a heptagon according to act, nevertheless according to aptitude it is and can be in many. And that it may be said generally, every name or diction, which is imposed from a form communicable to many, whether that form be accidental, or substantial, is common and universal, whether according to act it be communicated to many, or not.

But a proper or singular is that which is imposed from an accidental form signifying a collection of accidents which it is impossible to be found except in one alone, as socratity, or platonity: which from the subject parents, and place of nativity, and other things of this kind, can convene to none except one, and it is impossible

that it be found in another. And this is done in two ways: for either it is done by a proper name, or by the nod of demonstration to this singular, as when we say, *this wood*, or *this white*: for this is so *this*, that it cannot be another.

Moreover a significant diction or voice is articulated, not from this that it is referred to the designated thing, but from this that it is in the intellect of the one seeking to know the unknown through the known: although also a certain one of it is a name, but a certain one a verb. But a pronoun (just as its name testifies) is accepted in place of a name in supposing: and a participle with the suppletion of a substantive verb in apposing or predicating supplies the place of a verb: just as when it is said, man *is loving*, or man *loves*, or man *was loving*, or man *loved*, or man *will be loving*, or man *will love*. But the other indeclinable parts without adjuncts have no intellect: as if it be said, man is *in*, it is not understood unless it be added *in what he is*, as *in the house*. And similarly when it is said, man is *above* and it is not added *above what*; and if it be said, man

however, and there is not added that to which the conjunction is adverse: or if it is said, man *therefore*, unless it is added what is inferred. But a name, as will be had in the following, is significative at pleasure without time. But a verb [is significative] with time which is subjected to it. The same is predicated, or said, or denied, or affirmed of one.

Furthermore to the voice significative at pleasure according to as it is in the intellect of him seeking the science of the unknown through the known, five things happen, namely that it be *univocal*, and some *diversivocal*, some however *multivocal*, also some *equivocal*, but some *analogous* or proportioned, which among the Arabs are called convenient. But *univocal* are those which are imposed from such a form, to which there is one respect of all participating in it according to thing and reason without more and less: just as *animal* is participated by the species of animals, and *man* is participated by the individuals which are under him. But *diversivocal* are different names of one and the same thing according to substance: because he instituting those names in instituting was affected by different properties of the thing, such as ensis, mucro, spata, gladius [sword], vestis, tunica, and such like. *Multivocal* are different names of different things: because he instituting in instituting was affected by different properties of different things, such as horse and ass. *Equivocal* are when one name is imposed on different things according to a different reason: because some one property found in different things affects the institutor; which property nevertheless is not in them through one reason, such as *dog*, which name is imposed on the barker, and the celestial star, and the marine fish on account of one property found in them, which is that all these are biting, although nevertheless they are not biting by one reason. But *analogous* are

spoken of proportionally, as the Arabs say, convenient: and they are media between univocal and equivocal, which are imposed on different things according to being and substance through respect to one to which they are proportioned, such as being, which is said of substance first and principally, and of accident secondarily, because it is something of being: and quantity is called being, because it is the measure of being: and quality is called being, because it is the disposition of being. And this, as John Damascene says in his logic, happens in three modes, namely by proportion to one subject, such as being: and by proportion to one effecting the act, as a doctor is truly called a doctor who works according to the medicine which is in him: and a doctor is called an idiot [layman], imitating a doctor through expert or experiments in the work of medicating, and not according to the art of medicine which is in him: and a doctor is called the instrument of medicine through which medication is done, as a clyster, or an embotum, or another such like: thirdly by proportion of the same, such as healthy which principally consists in the equality of the complexion of animals, and is in food as in that conserving the same health, and in urine as in that indicating, and in the air or in the place as in that fostering, and similarly it is in others. But all these things are extracted from the logicals: because these convenient to the significative and articulate voice, according to as by institution it affects the intellect of him who through the known seeks to be certified about the unknown.

For we wish according to the custom which we have in others, to place all things as much as we can which pertain to the illumination of the doctrine.

### CHAPTER VI — *On the part of logic which certifies the incomplex, and on the requisites for a true definition, and its faults, and on the modes of definition.*

From these things however which have been said it is clear, that if anyone seeks to know the incomplex which is unknown, through that which cannot be unknown to him, he cannot find

the notice of it except through definition or something else which imitates a definition by some declaration of the incomplex.

But its principles and rules are five, and five corruptions.

First indeed, that all things posited in a definition are substantial and exist substantially in the defined: because a definition is said to be that which defines all ends of essence, conjoins and unites, and explicates what are the principles of the defined or the being of the defined, namely essence, potency, and the ultimate act completing the being of the defined, just as we say rational, mortal, voluntarily mobile animal, to be the definition of man. But *animal* according as it includes in itself a sensible animated body and a substance, is the first potency, in which the being of man is inchoated. But this inchoation is essentially determined through *rational* to the act of reason. But through *mortal* it is determined to species, especially according to the Stoics, who

used to say that good demons and evil demons were rational animals, aerial bodies, and immortal in life, as Themistius and Apuleius say. But through this that it is said *voluntarily mobile*, it is separated from others which are apt by nature and phantasy to motion. And this is the first.

But the second is (what Aristotle teaches in the *Metaphysics*) that the ultimate difference be convertible with the defined, which makes the whole definition to be convertible: just as this very thing which is voluntarily mobile, is converted with man according as will sounds the appetite which is in reason.

But the third, that what is posited prior in a definition, relates to the following, just as a proximate potency to act, and just as the determined to the determining, and just as the distinct to the distinguishing, just as animated to sensible, and just as sensible to rational, and just as mortal to rational, and just as voluntarily mobile to mortal: so that in one motion of generation the posterior always proceeds from the antecedent.

The fourth is, that the first defining thing be per se known to him who seeks to know the defined both in substance and in power; because unless it is known in substance, it cannot be the principle of the cognition of the unknown: and unless it is known in power, the definition of that which is sought to be known cannot be hunted through the division of it.

But the fifth, that the definition say the whole being of the defined: because otherwise it would not reach from end to end in the quiddity and the

being of the defined, and thus it would not have the true name of definition. And through this a definition has, that it is one and not many, just as a motion is one and not many, which is from the first potency through the middle way up to the ultimate act. Therefore these definitively considered make such a definition, that it truly and wholly certifies the defined.

And its sins are five opposed to these, although any of the sins be in many modes: just as also in others in which good is done from one thing and cause, but evil multifariously and in infinite modes, as Pythagoras says. Therefore the first sin is, if through one accidental or through many or all accidentals, the essential notice of the defined is sought: as if I say, that man is a risible animal, or that the sun is (as Empedocles says) a white hot thing.

The second sin is, if the ultimate difference be non-convertible: then those preceding things which are in more, are not determined to the being of the defined through the ultimate difference except in potency: neither are the quiddity and the being of the defined known through them by a universal science, but in potency, not in act: and thus the being of the defined is not perfectly known.

The third sin is, if what are posited in a definition be posited inordinately:

for thus the act would be signified to precede the potency in the same: which never happens in any being of a defined thing, in which there is potency and act. For in all such things the

potency immediately precedes the act: and therefore through such a definition the being of the defined (just as it is) would not be declared. And an example of this, as if I should say, that man is living, rational, sensible.

The fourth sin is, that the first defining thing be not per se known in substance and power. And this happens in four ways: because when it is defined through that which is the same, or equally unknown, or through that which is more unknown than it, or through that which cannot be known except through the defined, or through that which is known through another. Through that which is the same: an example is, just as when time is defined that it is the measure of motion: for what is said of time, is said of the measure of motion: because time is nothing else, than the measure of motion: and he who is ignorant of time, is ignorant of that which is the measure of motion. But when it is defined through the equally unknown: it is, just as when whiteness is defined through that which is to be contrary to blackness: for it is equally unknown what whiteness is, and what its contrary is, namely blackness. And thus concerning the definition of relatives through each other, as will be manifest below in the following. But concerning that which is more unknown: an example is, just as he who defines fire, saying that fire is a thing among bodies most similar to a spirit or soul: for he defines fire through a soul, which is more unknown than fire through substance and definition. Concerning that in which a thing is

defined through that which cannot be known except through the defined: an example is, just as he who defines the sun, saying that the sun is a planet by its illumination making the day. For since the day is the dwelling of the light of the sun over our hemisphere, it is certain that the illumination of the day is known through the defined: and thus the definition will be circular, which is very inconvenient. But all these convene in one, namely that a thing is defined through that which must be known through another: for thus it will never stand, but is always defined through another, and it will go to infinity.

The fifth sin is, that the definition does not say the whole being of the defined: for if it did not say and explicate the whole, it would not say what the being of the defined is, and it would not certify the defined except in part. Just as he who defining a triangle, says that a triangle is a figure of three angles having three angles equal to two right angles. For since it is not posited in the definition, that a triangle is a rectilinear figure having three angles equal to two right ones, the whole being of the defined is not said: for it can be a figure of three angles having three angles greater than three right angles, if the triangular figure be composed from arcs. Also the said definition sins for another cause: because it posits what is not essential to the defined. For to have three angles equal to two right ones, is not an essential constituting a rectilinear triangle, but is a passion consequent to the essence of the defined. Another example of the same (and it is

more convenient than that which is said) is, that a circle is a plane figure contained by one line. For this definition does not say the whole being of the defined: because concerning that which is the formal principle of a circle, and from which it is produced, it makes no mention, that is, concerning the center. It will therefore be perfect if it be said thus: a circle is a plane figure contained by one line, in the middle of which is a point, from which all lines produced to the circumference in continuous and direct are equal. Therefore these are the things which must be attended to and cautioned against in definitions, if the defined ought to be certified through a definition.

Nevertheless there are some other notifications, not proper definitions, given sometimes through the matter, sometimes assigned through the efficient only, which unless they be reduced to definitions which are given through genus and essential differences, cannot be called definitions, but whatever-

whatever notifications. But they are reduced in this way: that matter is not accepted as simple matter, but as it is the first potency for being. For it is thus accepted according as there is already in it an inchoate essential form, and in which formal power are inchoate the constituting and dividing differences. Just as if it were said that man is constituted from body and a rational soul: for then the body is not taken as absolute from form, but rather is called an animated sensible: which animated sensible is that from whose potency and inchoation the rational is produced. And thus it

returns to that definition which is from genus and difference: because the animated sensible body is an animal, and that which is animated by a rational soul is rational. That, however, which is given through the efficient [cause], is as if it were said that man is that which is generated by man. For then the agent is not taken as an efficient only, but as an agent according to form and univocally. But a univocal agent gives form according as it goes out from formal potency into act. Hence that which is generated by man is not living and animal at the same time, nor animal and man at the same time according to act: but first living in act, and potentially sensible: secondly sensible in act, and potentially rational. And also the definition given through the efficient cause is reduced to that which is from genus and difference. Otherwise, the efficient cause being accepted [differently], it will be of the essence of the thing defined, and will not certify it.

Every other declaration of the incomplex which is made through accidentals is not a definition, but is called a description. But such a declaration should not be made through common accidentals, because these are not convertible: but through proper accidentals, because concerning these it is understood what Aristotle says, that accidents or the knowledge of accidents contribute the greatest part to knowing what a thing is. For these are accidents of nature, and proceed from the aptitude of that very nature, and therefore they notify the substance, just as often that which is prior is known through that

which is posterior, not simply, but as far as we are concerned. This, however, will be manifest in what follows. Nevertheless, the logician uses such things in receiving knowledge of the unknown, just as he also uses other argumentations in receiving knowledge of the complex, which are less certifying than the syllogism.

The logician uses other declarations whenever they are of greater declaration than the name itself or the incomplex diction whose knowledge he seeks: which, although they do not perfectly certify, nevertheless in some way declare that which is sought. And because, as Ptolemy says, he is a fool who, when he cannot perfectly know what he seeks, rejects that through which he can know by conjecturing about what is sought. Therefore, it belongs to the logician to give rules and principles for the knowledge of the incomplex, through which he may begin from principles known through themselves and arrive at the knowledge of those things which are sought: for not all things can be unknown: because thus in seeking one would proceed to infinity. For the first principles are like seeds inserted by nature into the knowledge of man, from which seeds, as it were, great fruits of the sciences arise concerning those things which are known through them: for with the first things posited through division, it is known what is potentially in them. And also division leads even to the ultimate; for which reason the science of division itself is necessary to the logician, as Boethius says.

### CHAPTER VII — On that part of logic by which the question concerning the complex is certified, and on the necessity of the whole of logic, and that the mode of knowing is varied according to the diversity of the matters in which science is sought.

Just as the logician, teaching how to seek-

the science of the incomplex, teaches the instrument by which the notice of it is accepted according to definition, and those things which make to definition, and which stand around definition, and which perfect definition, and those things which change definition: thus teaching to accept the science of the complex, he teaches the syllogism which is the proper instrument of it, and teaches other species of argumentations, and the principles of the syllogism, and those things which stand around it, and its principles, and parts, and the matter in which the form of the syllogism can be posited, and the form of other argumentations, and what things change a syllogism. And therefore those things concerning which the logician has to treat, are divided and multiplied according to these.

Of that complex of which science can be accepted, there is no difference: because the indicative speech alone is that, whose it is to be true or false. And therefore only of it can science be accepted: because science is only of the true. But this is twofold, namely categorical, and hypothetical: or (as the Arabs say) enunciation and conjunction: for which reason he teaches to constitute two species of syllogisms. For he teaches

to constitute the categorical syllogism, and the hypothetical syllogism, although the hypothetical has to be reduced to the categorical.

But the construction of a syllogism is done twofoldly, as we have already said in the foregoing, namely to discovering, and to judging. But discovering cannot be, except through the habitude of the known to the unknown, which habitude is topical and is taught in the science of the *Topics*. But the science of judging is through the resolution of the discovered, which is resolved either into the formal principles of a syllogism, or the material, which are the principles certifying the thing through this that they are the causes of that which follows, and is inferred. And there are two parts, namely of the *Prior Analytics*, and of the *Posterior Analytics*: and to teach the principles and rules of these is proper of the logician. But lest a deception might happen concerning those things which are said, the science concerning the *Sophistical Refutations* was discovered. Moreover lest an impediment might happen from the part of him who seeks to accept, the cautions of the tempter were discovered, in all of which the doctrine of the logician is, so that the science of the enunciation can be completely accepted, whose science is sought through argumentation.

But because a syllogism is not known whether it be a composite and complex somewhat, unless it be known out of what and how many and what kind of things it is, and how conjoined, therefore the logician has to treat of the enunciation and

the parts and qualities and composition of the enunciation. And in these the logical work is perfected: which all are done by the act of reason, which is ratiocination, which act is the discourse of reason from one to another. And therefore such sciences are called by Dionysius discursive disciplines. But reason cannot thus discourse from one into another, unless first it accepts one to be divided in another per se or per accidens. And this cannot be, unless one be accepted to be ordered to another per se or per accidens. But order is of the prior and the posterior according to nature and being: and thus it accepts the universal and the particular per se or per accidens. And thus it discovers the mode of predicating one of another, or denying. And as to the order the science of *Universals* was discovered, and the science of the *Predicaments* [Categories]. And as to the mode of bringing one out of another, the science of divisions was discovered. For the work of reason is to order, to compose, and to collect, and to resolve those things which are collected: which work it uses as an instrument in accepting science when it proceeds from the known to the unknown: with whose notice (if it is perfectly delivered) the logician is prepared to the acceptation of science, provided he knows to caution against errors and fallacies, concerning which he is sufficiently instructed in the sophistical refutations.

These therefore are the parts of logic which generally have to teach the mode of accepting the

science of any knowable whatever, incomplex or complex. And this already before us de-

...termined Al-Farabi. But this mode, according to the matter in which it is posited, varies according to the diversity of the matter in which the science is sought. For in the logical disciplines it is otherwise in grammar, which attends to the mode of significant dictions both in inflection and in the conjunction of construction. It is also otherwise in poetics, which intends to move from fictions and imagination to delight, or abomination, or appetite, or love, or hate. And therefore it uses fable and the recitation of heroic deeds, and in speech a modulated song brief and long, that it may soothe the hearing, that it may more easily provoke. And it is otherwise in rhetoric, which teaches an abundance of speaking to persuade a judge, that he may be provoked to vengeance or privation of him concerning whom one persuades, taking rhetorical topics both in persuading, as also in complaining and accusing. And there are also colors of speech, that the speech may be charming, and may flourish being accepted on account of the cultivation of discourse. It is also otherwise in the laudable and ethical sciences, in which by the demonstration of praise or vituperation that which is proposed becomes acceptable and laudable before the virtue of persuasion. For indeed in the real sciences, it is otherwise in the probable, and otherwise in the necessary and demonstrative, and otherwise in the conjectural which are not sciences of demonstrations, as in physiognomy, and the second

part of astronomy, and necromancy, and other sciences of this kind.

Therefore with such and those things which have been said being had, every logical business will be perfect, by which we intend to deliver the method, by which everything that is unknown can be made known from that which is known per se or posited or accepted as known. For some things are known per se in some: but some are accepted from others as known, as in the conjectural sciences, in which no things are according to the thing per se known.

## CHAPTER I.

*How the universal is of the consideration of the logician, and on the number of universals, and on the utility of the book of universals.*

The first thing that must be considered in the science of logic is the universal: because if the reason of being predicable of others according to truth is attended to, it cannot properly and truly be predicated of another unless it is in that of which it is predicated. But since nothing is in itself (for this cannot be understood according to the intellect, that something be in itself, or be in itself, as Aristotle says), it is necessary that everything which is accepted to be in another, either be in it as an essential nature, or as an accident. And through this, that it is in it, it follows by necessity that it is communicable to all to which its being in is signified. It is therefore communicable to many according to aptitude, and in many, and of many. But everything that is thus in, for this very reason

is predicable. Therefore, the reason and cause of being predicable is that it is a universal. Since, therefore, the first act of reason (which investigates the science of the unknown through the known) is the ordering of predicables, and the ordering of predicables cannot be known unless it is known by what reason that which is predicated is predicable: which reason is taken from this, that it is predicable. (For it is prior to consider the predicable according to that which is predicable, than to consider the order of predicables.) Since, therefore, from this that it is universal, it is predicable, it is necessary first to posit the science of the universal.

But if anyone should object that the particular is also predicated of itself, we shall say that this predication does not have the perfect reason of predication: and concerning this, it will be treated in what follows in the opportune place. Thus, therefore, for the reason of predicables, it is both necessary and useful to prefix a treatise on the universal.

But the universal is that which, while it is in one, is by nature apt to be in many, as has been shown in the preceding. And through this, that it is in many through aptitude, it is predicable of them. And thus the universal is that which by its aptitude is in many and of many. And in this way, insofar as it is the reason of predicability, it pertains to the logician to treat of the universal, although according as it is a certain nature and a difference of being, to treat of it pertains to the metaphysician. For to predicate and to be predi-

cated is of the reason ordering and composing the predicables according to the proper reason of the predicables.

But the universal thus accepted as it is a predicable which is in many and of many, either is in essentially, or accidentally: whether as essence, or as accident. If it is in as essence: either it is in as the whole essence, or as an essential part. If it is in as the whole formal essence, it is certain that it is a species, because the species is the whole formal being of the individuals of which it is predicated: because whatever is after the species is of matter or individuating [principles]. But if it is as an essential part: then either it is according to potency in which there is being through inchoation, or it is a part according-

[according to] act in which there is being according to perfect act. And in the first way indeed it is genus, but in the second way it is difference. But if it is in as an accident: either it is in as an accident of nature, which is caused and emanates from the aptitude of that very nature: or as a common accident, which is an accident of the individual. And in the first way indeed it is a property [proprium], and in the second way it is called an accident. And to treat of all these is necessary for the logician, for the reason that he considers the order of predicables and the composition of predicates.

How all these are predicated through the mark of composition, and how through this substantive verb *is* [est], will be manifest in what follows: but here let it only suffice that whatever

is predicated, is predicated not as a part, but as the same according to being. But I say "the same" either through itself [per se], or through accident. Therefore, concerning these there will be a treatise in this our book. Nor shall we consider here the things themselves to which such things are referred for one order of the predicable. For this has to be determined in the book of *Predicaments*. But the accident to the things themselves, by which the first of their predicables has the name and reason of *genus*, and the second of *species*, and the third of *difference*, the fourth indeed of *property*, the fifth however of *accident*. For this pertains to the intention of this first book. For through this, accidents receive a diverse mode of predicating in *what* [in quid] or in *of what kind* [in quale]: although they all agree in this, that any of them is predicable: by which also the science is one, and not many. But the universal cannot be defined by a true definition: because through this, that it is predicable of many, it is not of one and the same reason, but is said by prior and posterior of those of which it is predicated through the circuit of its community.

Treating however of these, we shall hold the mode and order of Porphyry. So that a double utility of our work may be had: both that the doctrine concerning universals be had, and also that the understanding of the book of Porphyry be had, which he wrote to a certain Grisarotius, his disciple.

Since however there are two kinds of necessity, namely the inevitable and the useful: for

that doctrine of the predicaments which is in the books of Aristotle (which is more excellent than the other doctrines of predicaments), to know what is genus, what difference, what species, what property, and what accident, according as these universals have the reason of predicables, it is necessary to treat of them. For it is inevitable, according as the reason of the predicable must be known before the order of the predicables. It is useful according as it is a help to know the intention of genus and species and difference and property [and] accident, before it is determined concerning those things which are ordered in one genus as species, and before those are determined which are divided from one genus through opposite differences, and before the properties of each genus are assigned, and the ample distinction of genera in substance, and the genera of accidents are determined.

It is also necessary and useful for the assignment of definitions: which all, insofar as they are predicable, are constituted from genus and differences, in which one must take care lest any accidental be placed. For evil cannot be avoided unless it is known, as Boethius says. It is altogether necessary for demonstration, whose medium according to the most powerful mode of demonstrating is the definition saying what it is and for the sake of what. For such a definition is, as Aristotle says, a demonstration differing in position. It is also necessary and useful for the science of divisions: because every division is either of genus into species, or of a whole

into parts, or of an accident into accidents, or of a subject into accidents, or of an accident into subjects, or of a voice into significations. And it is clear that there are certain things in division which cannot be known without the doctrine of these. Wherefore the science of genus, species, difference, property, and accident, is a help-

to the science of divisions of genus into species, and of accident into accidents, or of accident into subjects, or of subject into accidents. But if it is not useful to every division, through this it is not removed that it is to division. For he does not have the science of division even who is ignorant of one reason of division.

Since therefore this business of those things as they are certain universals is so useful, I will attempt to show the doctrine of those five things as they are in reason, by speculation or consideration, making a compendious tradition. For our mode will be as if introductory, that it may suffice for the unskillful. But we will collect those things which have been said concerning these by the Ancients: and although in the mode of introduction one ought to abstain from higher questions, nevertheless on account of the goodness of the doctrine we will touch upon them also. Although nevertheless in the mode of introduction the simpler things easily intelligible by the unskillful are rather to be mediately conjectured, that instruction may become easier. For concerning one and the same thing it can be treated by a subtle demonstration and by an introductory dissertation. For we will not demonstrate these

things here through the highest causes, but we will make instruction concerning them through similitudes and examples.

## CHAPTER II.

From what questions concerning universals one must abstain.

Lest however it might seem that there is no science concerning these, which cannot be determined through the principles of logic: but it is necessary that they be determined by the principles of the highest wisdom. The first indeed is whether those things which are called genera and species subsist in the thing, or whether they do not indeed subsist in the nature of things, but are posited in sole naked and pure intellects through an abstraction made from things? And I say sole intellects through the exclusion of things, so that they are not in things. But I call naked intellects those separated from the appendages of matter, which are of those alone which never were in matter. For those which were in matter, are not in naked intellects, but are in intellects which are immixed with phantasy and sense. But I call pure intellects from the part of the intelligible, to which nothing moves except the light of the intelligence alone, and not a received phantasm.

However there are those who interpret those things which have been said otherwise, saying that those things are in sole intellects as to us, which whether they are and how they have being, the intellect alone knows. And those who were

called Nominalists said that universals have such a being in the intellect, who said the community (to which the particulars of the universals, of which the universals themselves are said, are referred) to be only in the intellect. But they call naked intellects those which to the knowable which they accept do not have prescribed habits, which dispose the intellect to the speculation of those things which are in it. Just as the intellect of conclusions seeks the prescribed habit of principles by which the conclusion is made, and the intellect of principles seeks for itself the prescribed habit of the notice of terms, and so of others. But they call pure intellects those which are not accepted mediately by a phantasm.

But there are still those who refer this to the intellect causing and knowing these things, which is the intellect of that intelligence which irradiates over the intellectual of our soul. And they say that they are in sole intellects, which do not have being except in the light of that intelligence. And they are those who say that universals do not have except an ideal being according as they are universals, and are not things conjoined to matter, but fill all their matter with the images of particulars, just as one male fills many females. But these call naked intellects those separated from the images, which they impress in matter. But they call them pure, from the fact that they are not commixed with the impurity of natural principles in causing, but out of their li-

-ght produce universal forms, which through distance from themselves are commixed with the

impurity of material principles, and then are particulated and determined.

Some also said that this multiplication is not posited except to the expression of the same thing through a certain inculcation of words. From these questions therefore and others which stand around them (which cannot be determined, except through the principles by which the nature and illumination of intelligences has to be determined) we shall abstain: although we shall touch upon them, that they may be known what they are. Since through the principles of this science they cannot be discussed and fully determined, from the fact that a business of this kind belongs to the first wisdom as to its highest part; and therefore is needing of a greater and more subtle inquisition. But that which concerning these it is useful for the logician to know out of the probable, I will attempt to show in this book, collecting probables out of the sayings of the Ancients, and chiefly following the sayings of the Peripatetics, which sect in philosophy seems to me most probable.

But the second question is, from which I abstain here, that if it be given that they subsist in the thing outside the intellect, whether they are corporeal subsistents, or whether they are incorporeal?

The third question is, whether they are posited in their sensible singulars according to being, or whether they are outside singulars in sole metaphysical things, as Plato is reported to have said? For this will not be able to be fully

known through logical reasons, but are left to be determined by the metaphysician. Therefore there are these three questions concerning universals. The first indeed concerning their being. The second concerning the quiddity of the same. But the third concerning the comparison of them to their particulars.

And therefore although these questions are or can be concerning all universals: nevertheless these are chiefly sought concerning genera and species for three causes. Of which one is: because these when they are predicated in what [quid], are signified to be per se. But the other universals when they are predicated in what kind [quale], signify to be in another, and therefore are seen less to be per se.

The second rea-

-son is: because the other three are signified to be in these: for the difference is in the genus in potency, and in the species according to act: but the property in the species and genus as a true accident: but the common accident in the individual. A third reason some say, that all others are referred to the reasons of these. For there is a certain genus of differences, whose species are special differences: and similarly it is in properties and accidents. But this last reason is of little value. But the first reason is best, and the second good, and assumed according to the intentions of those who said these things.

## CHAPTER III.

On the declaration and examination of the first question.

But although these are determined above the powers of logic, from the fact that it is necessary to use in these reasons assumed from the principles of being according as it is being, from which it is known what is subsistent in the intellect alone, naked, and pure, and does not have another subsistence. And what is subsistent outside the intellect in nature according to complete being. To which logical reasons do not suffice. Nevertheless on account of the goodness of the doctrine, and lest the mind of the reader be in suspense, it is to be attempted to explain these things a little.

Therefore to the first question, the greater difficulties which make doubt for a part, are to be induced, that the reason of the doubt having been seen, the truth having solved the doubt may be better understood. Therefore the first question is, whether universals and chiefly genera and species, which indeed are signified, subsist in nature according to being separated from the intellect: or whether indeed they do not subsist thus, but are posited in sole, naked, and pure intellects. So that they do not have separate being, but are only accepted according as they are reasons and intentions accepted in the mind and light of the intellect.

Thus therefore the question having been explicated, those who say in sole, naked, and pure intellects-

...posited in [sole, naked, and pure intellects] induce seven stronger reasons for themselves. For they say, what Boethius and Aristotle and Avicenna say, that everything which is separated in nature, is therefore so because it is one in number. But the universal which is genus and species is not one in number, from the fact that the universal is one in many, and of many. But that which is one in many and of many, is not separated from many. Therefore it is not separated: therefore it is not one in number. And if it is not one in number, it follows that it is not. Therefore the universal is not separated. If therefore it is in any mode, it is not except in sole, naked, and pure intellects. In sole indeed, because it is not in the thing: but naked, because the universal is denuded from phantasms; but pure, because it is nothing except the pure light of intelligence, compared to no sensible matter.

They adduce a second reason. For they say that everything which is separated from nature, having separated being outside intelligence, this is a "this somewhat" [hoc aliquid]. And this indeed is the saying of Aristotle and Avicenna, and it is proved by induction. But the universal is not a "this somewhat", but a "what kind" [quale quid]. Therefore the universal existing in nature is not. If therefore it is, it is necessary that it be in sole, naked, and pure intellects.

They adduce a third reason. If everything which is according to separated being in nature, is particular and individual, as every form which is in an individual is individual, whether it be

substantial or accidental, for it is individuated through matter which is the principle and cause of all individuation. But the universal is posited to be in its particular, as in a subject and substance in which it subsists, and which stands under it, as Aristotle says in the *Categories*. Therefore if the universal subsists outside the intellect in its particular, it is particular: which is absurd, because the particular is neither in many, nor of many. But the universal is in many and of many.

Fourthly to the same they induce, that Aristotle in the first philosophy proves multi-

-ply, that in the same thing the being of the universal and of the particular is the same: because otherwise man would be two and not one. If therefore the universal has one being with the being of the particular, this being according as it is in the particular, is particular: and the being of the particular is not to be of many and in many: for this singular man is, and not in many and of many: it is argued from the destruction of the consequent. If the universal according to its being, is in many and of many, the being of the universal is not the being of the particular. But it is the being of the particular if it is outside. Therefore it is not outside in nature, but it is in sole, naked, and pure intellects: because otherwise the universal would in no way be: which is very inconvenient. But whether the universal be, no one ever doubted. And therefore the Ancients did not ask whether the universal be, or be not, but

they asked whether the universal be separated outside the intellect in nature, or be posited and founded in sole, naked, and pure intellects; from the fact that outside the intellect it is in the nature of things.

Fifthly they oppose saying what Avicenna said and Algazel, that the universal which is genus or species, if it is outside the intellect, either began to be, or did not begin to be. If it be said that it did not begin to be, it follows that it is eternal: which cannot be, since it has as cause the light of intelligence which makes and gives all forms. But if it began to be, either it began to be from itself, or from another. But it did not begin to be from itself: because nothing begins from itself, since Plato says that there is nothing whose origin a legitimate cause has not preceded. But if it began from another, it began through the act of an agent. But nothing is made through the act of an agent, except the particular and individual: because every act is circa particulars. Therefore the universal is particular and individual. Let us therefore destroy the consequent, saying that the universal is not particular and individual, as has already been proved above: therefore the universal did not begin to be, nor is it in eternity. Therefore the universal is not in nature, but is in the intellect.

The sixth [reason] which they bring into the assertion of their opinion is that in art (which imitates nature) two [things] seem to be in the form of art. For if it is considered according as it is in the artisan, it is common to all things which

are of the same genus and species, because it is in the artisan by the mode of the artisan. And just as there is one artisan able to produce many artificial things: so the form in the artisan is a common exemplar to all in which that form can be exemplified. But when it is outside the art of the artisan in the artificial matter, it is particularized, and can be common to nothing, nor has it any aptitude for being in another and of another. Similarly, it seems to be in natural forms. For in these the intelligence is as an artisan, and the natural form is the form in things, just as the form of art in the matter of the artificial thing. It seems therefore that if the universal is common and apt by nature to be in many, it does not have this except according as it is in the intelligence which is a common artisan. The universal therefore, as it is a universal, is not except that which is in only, bare, and pure intellects.

Seventh also through this they confirm what they say, which in the book *Of Causes* is manifoldly proved, that a thing is not in the cause except by the mode and power of that which is effected through the cause. But in the effect the cause is not except through the form which the cause produces in the effect: because everything which is produced from potency to effect, is not produced except through that which is in the effect both in univocal accidents and in equivocal ones: because it is necessary that equivocal ones be reduced to univocal ones. Therefore the form of the first acting intelligence in this which is the effect, is not that except through the condition

and power of the effect. But the effect is individual and singular. Therefore the form, whether substantial or accidental, proceeding into the effect from the intelligence, is individual and singular. But the universal is neither individual nor singular. Therefore the universal in the effect of nature proceeding outside the intelligence is not; in only, therefore, and bare, pure intellects it is placed.

These are the things which they bring as stronger, who concede that universals are placed only in the intellect. And therefore they say that Aristotle said that the universal is, while it is understood; but the singular is, while it is sensed outside.

On the other hand, however, those who say that universals are things existing by themselves outside the intellect, bring seven stronger [reasons], upon which they especially rely. Of which the first is, that *this man* is not except from man simply: and by the same reason another man is not except from man simply, and so of all others. But man cannot be, except from that which is simply existing in nature according to the thing outside the intellect. On account of which man is called the most worthy of creatures. For if this were appropriate to this man according as he is *this man*, it would not be appropriate to another. Similarly, that *man* is rational is not appropriate to this one according as *this*: because then it would not be appropriate to another. Therefore it is appropriate according as he is man. Therefore man according as he is

man, and not *this man*, is something existing in nature besides the intellect. The same reason is concerning the animal according as it is an animal.

The second is, that as Aristotle says, those things are the same by which a thing is, and by which it is known and learned. But there is no science except concerning the universal and through the universal. Therefore a thing is not, except through that which is universal. For science is not except concerning things and through things, especially in physics. Therefore universals are things outside the intellect. For if they were in the intellect only, they would be intentions of things, and not the things themselves.

Third they bring [the reason] that the form which gives being does not have being from matter, although it be in matter: but it has being from the agent according to form and a univocal agent. And according as it is from the agent, it truly is, and it is outside the intellect: and yet it is not this or that, but it is simply. But the universal is, that which according to itself is not this or-

that, but is simply communicable made this or that. Therefore the universal simply and according to itself is separated from the agent and existing in nature, although it be not this or that. Therefore the universal simply is, and is more than the particular, whether this or that. And this was the objection of Plato, who said universals to be forms.

Fourthly they adduce: because that which is from the agent formally, truly is in nature: and

nevertheless of its formal being it has nothing from matter: but from this that it is in matter, it has that it is the form of this or that. But the being truly from the agent not according as it is of this or that, most truly has being in nature and in the agent formally: because in one mode it holds itself to all things which are exemplified by it. That therefore which is thus, most truly is with nature: because its being is not overshadowed or varied by anything. But the form according as it holds itself in one mode to all its particulars is thus, and has such a being. But in this mode is the universal. Therefore the universal most truly is in nature, and is more truly than the particular.

Fifthly they induce, that the form gives being to the thing both in species and in reason: and nature is nothing except the light of intelligence terminated to this, and incorporated in this. What therefore gives being and reason, either has it from this that it is incorporated in this, and terminated to this, or not. But it is evident that it does not have to give being and reason according as it is terminated to this, and according as it is incorporated in this: because this happens to this, and from this accident it cannot have a substantial act. Therefore it has it from this that it is the light of intelligence, which is giving being in nature. But it does not give being in nature, except what truly is in nature. Therefore the form which gives being in nature, truly is in nature outside the intellect. Just as the form of art does not give the articulated thing to be in the genus and species of the articulated thing, except

according as it truly is in the articulated thing, and outside the intellect of the artificer: although this that it gives being to the articulated thing, it does not have from it according as it is in the ar-

-ticulated thing, but according as it is from the artificer.

Sixthly they adduce, that the light making colors, does not lose anything through this that it is in a terminated body: nor does it receive anything of essence or virtue to acting, although to that which is constituted through it, many things happen through this that it is terminated to this or that. Therefore similarly the light of intelligence, which of itself bestows forms, does not lose that which it has from itself or from the efficient, through this that it is in this or in that: nor does it receive anything of essence or virtue from this that it is terminated to this or that, although to that which is constituted by this many things convene according as that constituting light acts in this or that. But thus having the virtue of constituting, it truly is in nature, and not according as it is in this or in that. But this is called existing simply and most truly and from nature having one aptitude to all things to which it gives being and reason. But this is genus and species as they are universals. Therefore universal genus and species most truly are in nature.

Seventhly they induce, that that which according to nature and virtue is before the thing, from that which is after it, neither receives being nor unity or multiplication according to itself,

except according to what it has in this or that which is after it. But the universal or the form which is the cause and principle of the thing, is before the thing according to cause and the order of nature. Therefore from that in which it is, it neither receives being, nor unity, nor multiplication according as it is in itself: although it is multiplied only according to the being which it has in this or that. If therefore it be accepted in itself, it has none of these from that in which it is. But accepted according to itself it most truly is: because accepted according to itself it does not have this that it be not except in the intellect: although from the intellect knowing and causing. Therefore accepted according to itself it most truly is a thing existing in a simple nature. But thus the universal is having aptitude to all its singulars.

Therefore the universal most truly is and is a thing in nature, even without this that it be accepted in the intellect alone, pure, and bare.

Behold these are the stronger [reasons], which those on one part and the other bring in the assertion of their opinions.

We, however, solving these as far as suffices for the present intention, say that the universal has a threefold consideration, namely according as it is in itself a simple and invariable nature: and according as it is referred to the intelligence: and according as it is in this [individual] or in that one. In the first way indeed it is a simple nature, which gives being and reason and name, and is the most true among all things that are, having

nothing of an alien nature mixed in, nor varied by the condition of an alien nature. But through this, that it is in this one or in that one, many things happen to it according to being: of which the first is, that it is particularized and individuated: the second, that it is multiplicable, or multiplied: the third however, that it is incorporated, and having in itself diverse passions of which it is the subject, and other infinite things of this kind, because infinite things happen to matter. But through this, that it is in the intellect, it is considered in two ways, namely either according to the relation to the intellect of the first intelligence knowing and causing it, of which that simple nature is a certain ray. Or according to the relation to the intellect knowing it through abstraction.

And in the first way indeed it happens to it that it is a ray and light of the acting intelligence and is both simple and pure being, and immaterial and immobile and incorporeal and incorruptible, and the perfectible of the possible intellect, and the motive of the same possible intellect to act: just as color moves the sight to act according to the act of the lucid which is in it when according to act it is color. But according to the relation which it has to the knowing, not causing, intellect, it has that such an intellect

according as it abstracts it, acts in it universality (which it previously had from its nature) by this, that it separates it from matter and material individualities. And thus is understood what Aristotle says, that the universal is while it is understood: but the particular while it is sensed.

And that saying of Avicenna, that the intellect acts universality in forms.

And this is what the ancients said, that forms are threefold, namely before the thing, which are forms accepted according to themselves, existing as principles of things: and in the thing or with the thing itself, which are forms existing in them, giving them name and reason, through this, that they are apt to be in many and are universal, yet not according as they are in them: for according as they are in them, they are particularized and individuated and led to singularity. There are also forms after the thing, which are forms separated by the abstraction of the intellect from individuating [principles] and in which the intellect acts universality. And the first indeed are the substantial principles of things, the second however the substances of things, the third however the accidents and qualities, which are called the notes of things accepted in the soul and dispositions or habits.

These things therefore having been previously tasted above, we say that universals, that is, the natures which are called universals, accepted according to themselves, are and most truly are ungenerable and incorruptible and invariable. They are also outside, or besides the only, bare, and pure intellect, as the second brought reasons prove incontestably: but according to a certain being, they are in things, namely according to the individuated being which is in act in those things which are ultimately and in perfect being constituted in nature: on account of which that

thing is called nature by the physicists. Moreover, according to a certain being they are in the intellect: and this in two ways, namely in the intellect causing and acting through knowledge, and in-

the intellect knowing through abstraction acting and educting them through universality.

To that therefore which by the first medium is induced for the first part of the opinion, that when Aristotle and Boethius say, that everything which is, is therefore so, because it is one in number: this is understood of those which by ultimate act in perfect nature are, for concerning them it is true. But universals are not in this mode: for they are as principles of things, and not as things by ultimate act in nature constituted and completed. Or thus it is understood [1], that one in number be said from the number of ultimate being, or from the number of essence. For the being which is one in number, has the being of its essence: just as the universal one in number, is one in the number of essence and not two or three (although the number of matter and accident be) in many and of many. And this happens to it and does not convene to it according to itself: and thus is understood what is said, that by participation of the species many men are one man.

Similarly it is to be said to that which they say secondly, that that which has separated being outside the intellect in nature, is a "this somewhat": because to have separated being is said in two modes. Namely in one mode in which that has separated being which in itself has an independent being to anything, to this that it

have a being which is outside it: and thus it is not generally true what they say: because the universal thus separated, has being in nature, and nevertheless is not a "this somewhat". In another mode it is called separated being, which in itself is undivided, and divided and separated from others through discretion. And in this mode generally it is true what they say: because thus none but singularly existing things have separated being.

To that which thirdly they induce through the saying of Avicenna, it is to be said that everything which is in the individual (according as it is in the individual) is singular. But that

which is in the individual, nothing prohibits to be universal, not according as it is accepted in the individual: for this accepted according to itself, nothing prohibits to be a "what kind", and not a "this somewhat".

But if someone should thus object, What is in the individual is in it through the mode of the individual. But the individual is a "this somewhat". Therefore that which is in the individual, is singular and a "this somewhat". The argument is not valid. For what is in the individual, is not always in it through the mode of the being of the individual, but sometimes through the mode of the principle of the individual. And it is not necessary that this according to that which it is, be individual and a "this somewhat": because it can be a "what kind". And therefore in the argument there is a paralogism of a figure of speech:

because it interprets a "what kind" as a "this somewhat".

But to that which fourthly they induce, it is to be said that the universal according to the being which it has in the singular, has no other being than the being of the singular: and this Aristotle proves [2] against those who said universal forms to retain a distinct and divided being besides the being of the singular (as received from a seal) a separated being from it just as separated is the being of the seal and of the sealed wax: but that that which is in the singular, has not the being of nature and principle, not according as it is in the singular, but accepted according to itself, Aristotle does not prove: because this is true and necessary in every nature.

To that which fifthly is objected, it is to be said that the essences of things according as they are essences, do not begin to be except by accident and through another, namely those beginning to be in which they are. For in these consequently also those things begin to be. And this does not happen to them, except according as they are in them: but according to themselves they neither begin nor cease to be according to nature, but they are rays of the light of intelligence universally act-

acting, who is God: which since it is acting of itself, it is not to assign that it begins or ceases except according as it acts this or that in the singular.

But to that which they induce sixthly, it is to be said that although the form of art has that

it is a common exemplar, from this that it went out from such an artificer: nevertheless after it went out, it still has it when according to itself it is accepted as a form of art: and it has this in woods and stones, although it does not have this according as it exists in woods and stones. And similarly concerning natural forms existing from intelligence. And therefore accepted according to themselves they are common and universal even those which are in singulars, although they do not have it according as they are in singulars.

But if someone should infer saying: If they do not have it according as they are in singulars: therefore they have it according as they are not in singulars. It is a paralogism according to the fallacy of division: because it infers the divided from that which had been said according to composition.

But to that which is induced seventhly and lastly, it seems it should be said, that everything which is in effect according as the effect has ultimate being, according as it is in that effect, is singular: and thus is understood what is proved in the book of Causes [1]. But that which in the effect accepted according to itself through the mode of the principle and formal cause of the effect itself accepted according to itself, nothing prohibits to be of itself communicable and common, as has now very often been said.

But those things which were induced secondly, I think conclude of necessity.

### CHAPTER IV. _Whether universals are corporeal?_

The second question is, whether universals are incorporeal or corporeal? which was induced from the Platonists just as the first. For Plato said mathematical lines and the surface to be certain separate things, from which mathematical bodies are composed: just as he said every divisible thing to be composed from indivisibles, accepting these from the Epicureans who began to philosophize before. But Melissus and Parmenides said such things, and certain others. But from great and small mathematicals they said every material quantity to consist.

But of their opinion they induced three most powerful reasons. Of which the first was, that they saw, that substance as much matter as form of itself, and according as it is substance, and accepted according to itself, is indivisible, as Aristotle expressly says. [2] It is necessary therefore that another principle of divisibility be indivisible. But the divisible is nothing but quantity: but all quantity whether it be discrete, or continuous, does not proceed except from an indivisible. Still every species of quantity does not proceed except from a proximate indivisible: because each genus and species is caused by some of its proximate principles. For a body which is in every way divisible, cannot be caused (as from a proximate principle of its constitution) by that which is in every way indivisible like a point, or by that which is divisible in only one way like a line. But it is necessary, that it be caused by that which is divisible in several ways. Just as the surface which is not indivisible except in depth, but is divisible

in breadth and length. And from the composition of one surface with another it becomes divisible in depth: just as the point in every way indivisible, by the composition of a point with a point becomes divisible in length, by the straight motion of the point into a continuum. For the point is a substance having position, and therefore by its motion into a continuum it makes the division of a placed line. And similarly it is concerning a surface constituted from a line moved in breadth: which motion com-

ponit [componit] with another existing one first moved in the breadth of the continuum: which by its motion is constituted.

And similarly it is concerning a body which by the motion of a surface moved in depth is constituted. And because there are not several sites of the continuum into which something indivisible could be moved to the constitution of quantity, therefore there are not several species of continuous quantity except three, and not unless three diversities. But since sensible matter of itself is indivisible and immobile, it cannot be a principle of a "how much" or of quantity. For matter of itself has nothing of quantity. But it is necessary, that everything which is an essential principle of any genus, be something of that genus, as much in the genus of substance, as in the genus of accidents. But it has been proved in the _Physics_ [1], that the principles of corruptible things are incorruptible, and the principles of sensible things are insensible. Because otherwise in principles and the principles of principles it would go into

infinity. It is also certain, that those natures which are called simple and universal, are principles of those which are singular, as has already been held and determined in the previously held question. And of these material and corporeal things there cannot be principles, unless they be corporeal and determined by the principles of quantity. It follows therefore of necessity, as it seems, that universals are corporeal, and bodies measured through corporeal quantities, and this reason is directly according to the intention of Plato, who placed such separate things. And therefore it is by us explained through many things, so that better what he intends, may be understood.

The second reason is, that the principle of any genus or species, cannot be, either this or that determined in number: because thus it would not be an accepted universal of that genus or species. The principles therefore of genera and species, are genera and species: and since the things principled are sensible bodies and "how muchs", it follows that their principles are genera and species of quantities. For these are sensible principles individuated through here and now.

For substance according as it is substance in its principles, is neither determined nor individuated to here nor to now: and therefore by such principles it is not caused. And therefore Plato said the principles of all these sensible things to be around mathematicals accepted in the reasons of genera or species: but substance according as it is substance not to be like a thing principled,

but through quantity to be determined to here and now. But from this he further inferred, that genera and species, which are the principles of these singulars, are corporeal.

The third reason of Plato was: because that which is first in the order of nature, is the cause and principle of the same which according to itself is later in the same order of nature, as in the book of the _Fountain of Life_ and in the book of _Causes_ is proved. But a "how much" accepted according to the reason of quantity it is certain that according to the order of nature it is before this sensible "how much". Therefore according to the order of nature it is its cause, and principle. But it is not a cause and principle except what is a simple and universal principle. Therefore that which is simple and universal, is a "how much" and corporeal.

These without doubt are the reasons of Plato in this that he said universals to be certain corporeal things constituted in mathematical reasons and forms. But that which some say concerning universals of immaterial things, as angels, and souls, nothing at all is valid to the proposal. For Plato said such things to consist from eternity, and to be certain rays of the first light, and not to be caused from material principles through composition, and in such things he said there to be the particular not the universal: but in such things he said, that they are in us by this that their lights and essences are in us, whether existing through them, or knowing them. On account of which Avicenna in his _Metaphysics_, where he

establishes the species of quality, says that this saying is true. Of which he says the sign: because those in which they are-

whether existing or knowing them, do not receive them according to here and now, but everywhere and always, as much as is of them. For the soul is not in the body according to here and now, nor a demon or intelligence, or even an angel, is not in that in which it is through operation or cognition as here and now, but according to the possibility of that in which it is, it is in it according to everywhere and always: because it does not have the discretion of position in it. This is the opinion of Plato.

Against this there suffice even three reasons, which are among the many that can be adduced, the more powerful ones. Of which the first is, that if universals (the principles of these singulars) are corporeal: either they are principles in as much as they are incorporeal, or they are their principles in as much as they are corporeal and determined to here and now. If they are the principles of these in as much as they are corporeal: but the corporeal is not made corporeal except through another corporeal: but the constituting principle is also corporeal: therefore the corporeal itself also is not made corporeal except through another corporeal: and thus it would be proceeded into infinity. It follows therefore, that the principle of the corporeal is incorporeal, just as the principle of the corruptible is incorruptible, and the principle of the sensible is insensi-

ble, and the principle of the mobile is immobile, and thus concerning all others.

The second reason is, that if universals are corporeal, it follows that they are determined by quantities and figures. But the reasons of quantities are not quantified, and the reasons of figures are not figured. But if universals are figured quantified things, it follows that the one receiving them, is figured by them, and is distended by quantity. But the possible intellect receives such things. Therefore the possible intellect will be quantified and figured, which no one ever opined, because all praised Anaxagoras saying, that the intellect is pure and unmixed, having nothing common to any. Therefore the universal cannot be corporeal, and in a corporeal thing: since in so far as it is universal, it is the motive of the possible intellect.

The third reason is, that if the universal is a body or has a corporeal quantity, it is necessary that its quantity be corporeal and perpetual. But its singular in which it is is in whatever mode corporeal and a body: either therefore these two are one body, or two bodies. If they are one and the same, it follows that the corruptible is incorruptible, and the sensible insensible, and the making the made, and the constituting the constituted, if they be one and the same: which is inconvenient and not intelligible. But if they are two bodies, it follows that two bodies are in the same place. For place is given to mathematical things just as to physical things, as Aristotle says. But it has been proved by us in the *Physics*, that if two bodies

are in the same place, of necessity the two will be one and the same body. It follows therefore, that if they are two diverse bodies, that they are one and the same body: which is completely impossible.

But we determining those things which have been induced, distinguish that corporeal is said multifariously, namely in four modes. In one mode indeed corporeal is said distended by corporeal quantity, such that the quantity itself is something of it. And thus having corporeal quantity, all mobile and sensible things are called corporeal. In a second mode corporeal things are called indeed not having quantity as something of themselves, but nevertheless according to the distension of quantity in the subject receiving them they are distended, just as whiteness and blackness, and hotness and coldness, and figure, and form consisting about something, are called corporeal: although quantity be nothing of their essence. In a third mode is called corporeal everything determined to a body as to a receiver, just as sense and imagination and other sensible powers. And universally every sensible and vegetative soul are corporeal forms. In a fourth mode is called corporeal, not because something is of a corporeal part or quantity, but because it is the principle of the quantity of a body.

And thus the point is said to be corporeal. But similarly it is called incorporeal in many ways: because if one of the opposites is multiple, so is the other. But in none of these modes is the universal corporeal: because it is like the nature

of the body or the corporeal, to which through the aptitude of being said of many it happens to be universal: and it is incorruptible, because (as has been very well proved) otherwise it cannot be the motive of the possible intellect, because it is entirely incorporeal and incorruptible. For it is a simple notion and nature abstracted from all quantity of distension.

To that therefore which is first objected, it is to be said that both that which constitutes the essence of the "how much" is twofold, namely according to the essence of quantity and its constitution which is a "how much" or quantity. And from such a principle proceeds the objection and it is necessary. Another is the constitution of the "how much" according to specific being and reason, not according to that which is quantity and giving the name and definition of quantity. And this principle constituting the species and genus of quantity is not quantity or a "how much", but rather the simple nature and reason of quantity. And this nature thus accepted in its simplicity is the universal.

But to that which is induced secondly, it is to be said that this which they place simply to be the true principle of this, in being and species according to nature or in genus is not determined to this or that: because if this were true, it would not be a universal principle, but of this or that. But this principle is not mathematical quantity in those things which are corporeal: but it is the simple nature constituting in genus and species, and giving the name and reason. And in this it is

clear, that although the point be an essential and as it were material principle of the line, nevertheless it does not have the name nor the reason of the form of the line. But another is the principle according to form, by which the line has the name and reason of the line. And this principle simply accepted is the nature of the line, to which it happens to be universal, by this that that nature is communicable to several. It is clear therefore that the universal of corporeal things is incorporeal. And this is truly the saying of the Peripatetics.

But to that which they induce thirdly, it is to be said that it is true what is placed: provided that it be well understood, that essentially by mode of a material constituted principle it is essential, not first in the order of nature: even if it were given that they constituted and principled natural bodies, they would not principle them, except according to that which is the subject quantity, and not according to this by which quantity is in reason or species or genus. And therefore they are not proper to them according to the formal order of nature, or according to the order of the efficient cause. But those which are constituting those which are corporeal in reason, name, and species, and genus, are prior according to the order of nature: and those are simple natures, and their essences, and their notions. But all these are both incorporeal and universal through the previously said things. And this subtlety Aristotle found, and therefore in all things which he said, he is preferred to Plato in the position of principles. This is the true determination of this question according

to the Peripatetics; and thus it is to be held, nor is there care for certain sophistical things, which certain people before us have written.

### CHAPTER V. _Whether universals are separate from sensibles, or placed in the sensibles themselves?_

It remains now to discourse concerning a most difficult question, which Porphyry touches as the third, whether namely universals are separate from sensibles, or are placed in sensibles or singulars, and do not have a separate being from them? But concerning this there was always contention between the Stoics and the Peripatetics. For Aristotle seems to place that the universal does not have being outside the particular: whence in the _Posteriors_ he seems to say-

detur [videtur] [1], that the universal is not except in this, that is, the singular.

He also says speaking against Plato, that for the universal to be one certain thing outside the many, is not necessary if there will be demonstration; however for it to be one of the many, it is true to say. As if he should say, to this that science be demonstrative, it is not necessary to say, that the universal (concerning which science is) be separate outside singulars: because it suffices, that the universal be one in many, and of many. Still further Aristotle says, that there is no necessity to opine, that the universal be besides this.

In the first philosophy [2] he further induces many reasons leading to the inconvenient: because if the universal were separate according to actual being from the singular, it would follow

that there would be a heaven besides this heaven, and a earth besides this earth, and a man besides this man: and since sciences concerning the natures of things follow things, and concerning separate things there be another science than concerning those conceiving matter, as is clear in metaphysics and physics: there would be another science concerning the heaven, and another concerning this heaven: and another medicine concerning man, and another concerning this man: and another geometry concerning the earth, and another concerning this earth, and so concerning others.

This same is proved through the definition of the universal, as much from the words of Aristotle [3], as from the words of Avicenna and Alfarabi. For the universal is one of many and in many. But if it is in many, it does not have separate being from them. And therefore they say that the universal is, what is apt to be in many, and in this it differs from the singular. But a thing according to nature is in that in which it is apt by nature to be, and not in that in which it is not apt by nature to be. The universal therefore is in many, and does not have separate being from them: because it is not apt by nature to have separate being from them. Still further if the universal were in act according to perfect being besides the many, it would follow that it would be existing through itself alone, and undivided in itself, and divided from others, and thus it would be a "this somewhat" and singular. But nothing which in itself is one and a "this somewhat", is predicable of

many, except by the name alone, and not by some thing which be in them. And he who thus places the universal to be, ignores the reason of the universal: which by name, thing, and the reason of the thing which is in many, is predicated of them. Still further if it were thus existing through itself, it could not be a cause to another in nature and reason, because it could not be its form: but if it constituted that, this would be through the mode of elemental composition of admixture: and then it could not be predicated of the being by formal predication: and then every utility of it would be destroyed. For thus it could be the principle of no thing, neither to being, nor to science which would be through the knowledge of the universal. Still all such propositions would be false and impossible, in which the universal is substantially predicated of the particular: as when it is said, this man is a man, or this wood is wood, and all similar to these, which are the greatest inconveniences and absurdities. But if someone should say, that the universal is united to the particular, and nevertheless remains in itself separate, here he does not escape the induced inconveniences: for such a united thing is not one, and according to being it is not predicated of that to which it is united. And therefore it could not be said, that Socrates or this man is a man: because to him would be united a man, and as it were impressed to the man as to a seal: just as it cannot be said, that sealed wax be the seal. It seems therefore, that the universal separate being may not have outside its singular. To the contrary however of

this is, that everything which has being, not having it through another or from another, can be without it. But the universal has being, not through the singular, nor from it. Therefore it can be without it: therefore according to being it is separable from the singular. This also is thus proved: To be univer-

salis [universalis] is a common being apt by nature to be in several and communicable to many. But this being it cannot have from the singular: because singulars are discrete and incommunicable. Therefore the communicable being which is the being of the universal, the universal does not have from the singular.

If perhaps someone should say, that this reason does not prove, that the universal does not have discrete being: but proves that from the singular destroyed the being of the universal remains according to some mode. This seems to be against Aristotle, who placing, that the universal has being in the singular, says that the first things being destroyed it is impossible for any of the others to remain [1]. And this according to the induced reason is destroyed: because if the universal has separate being or separable from singular being, the universal will remain the singular existing and the singular not existing equally: for the reason that its being does not depend on the being of the singular in any way, except according to being in it, and not according to being simply.

Moreover, the universal is always and everywhere: but the particular or singular is here and now. But if the universal is everywhere and

always, it is somewhere where the singular is not: and it is at some time when the singular is not. But whatever things are separate in place and time, are separate simply and substantially according to being and subjects. Since therefore the universal and particular differ in place and time or are separate, they seem to be separate simply according to being and substantially as subjects.

Further, the same being cannot be understood as corruptible and incorruptible. But the universal is incorruptible, while the singular is corruptible. Therefore the being of the universal and of the singular will not be the same. For if the being were the same for both, it would follow that contradictories are true at the same time: because if it is corruptible according to being, there will be some time when it will not have being. For it was proved concerning the *heaven and the world* in the first [book] 2, that the corruptible will necessarily be corrupted at some time: and then it will not be incorruptible, or it will always be. Therefore there will be some time, when that same thing according to being both will be and will not be, which is impossible.

Moreover it is clear, that the universal has being in which many are united in one name and reason: which name and reason say the being of the defined. But this being it has in no way in the being of the singular. Therefore it has this being separate from the being of the singular. Since therefore it has this being: either it has it according as it is the instrument of the first

agent, or it has this according as it is in the soul through abstraction of the one knowing it, or existing in the thing itself outside the agent and the one knowing. If it be said that it has that in the efficient [cause], then the universal has no being except ideal: and when it is predicated of the singular, it is not predicated except as an idea: but this predication is not substantial, but only exemplary, and thus all substantial predication is destroyed. But if it has it in the apprehending soul, then the relation of the universal to many is only in the soul, and not in the thing, and thus it is predicated by name, and not by thing. And thus universals are not things, but names: which has already been shown to be false. It remains therefore that they have that according as it is a thing existing in itself and separate from the agent and the knower and from the singular. Therefore the being of the universal is separate from the being of the singular, and vice versa. From all these and similar things it seems that the being of the universal is separate in substance, place, and time from the being of the singular.

To these things however it is not difficult to respond to him who well knows the position of the Peripatetics. For through the distinction of the being of the universal all these things are easily determined. For there is the being of the universal according as it is universal according to the reason of universality, and there is the being of that which is universal. Similarly the being of the singular according as it is singular and according to the reason of singularity: and there

is the being of that which is singular, insofar as it is a substance-

standing under the common nature. We say therefore, that the being of the universal in that which is universal, is separated by reason, and is opposed to that which is the being of the singular in that which is singular, although not as in the same subject. But the being of that nature which is the universal, is not separated from the being of the singular according as it is a substance standing under that common nature: but rather the being of the universal is the being of the particular, and not divided from it. For it is, as we have said, the universal according to being in the particular: although it may not be universal according to this that it is in it, but neither common, nor communicable, as in the first question is sufficiently declared. And unless it were thus, there would not be question nor science concerning anything, as in the first things objected is proved. Nor is to be cared about the solution which certain ones induce, namely that the universal according to itself has being, but does not have complete being, except in the particular: for the universal has complete being in this, that it has all things which are required to the being of the universal: just as the particular has complete being, when it has all things which are required to the being of the particular.

But to that which first against this is induced, it is to be said that everything which has being not through another, can be without it: unless it be thus, that its being although it be not through

another, nevertheless is in another to which it itself is the cause of being. And this is to be in another, as an essential part of its being according as it is in another: and in this mode the universal or second substance is in another: but through this that it is in it, it is particulated and determined. And therefore it indeed has being in itself but not determined and particulated.

But if it be asked, whether the same being is what the universal has accepted per se, and what it has determined and particulated? It is to be said that neither the same entirely, nor diverse entirely: but the same or one doubly. For in substance it is the same: but double as the same and one

undetermined and determined.

And this is the solution of three Philosophers, Avicenna, and Alfarabi, and the same John the grammarian named among the Arabs: and it is true because it accords with the sayings of Aristotle.

But to that which secondly they induce, that to be naturally apt to be in many does not belong to the universal according as it is in singulars, it is to be conceded that this is true: but this that nature has in as much as it is simple and undetermined. For by how much something is simpler, by so much more it is communicable to many. But I say simple not through the privation of differences, which convene in its being, but through the privation of those things which determine and contract it to this being or that according to species

or individual. But through this it does not follow, that it should have determined or singular being: because although such being it may not have from the singular, nevertheless it does not have it except in the singular: just as also the common does not have being except in that, in which it is determined and to distinct being contracted. For nothing is simple in nature, except that which to distinct being is and determined, just as a genus is not except in species, and a species is not except in its individuals.

But to that which is objected, it is said that the objection does not prove, that the universal has separated being, but that it remains with many particulars destroyed is to be conceded. But what Aristotle says, that with the firsts destroyed it is impossible that anything of the others remain, is understood in determined and distinct being in the things of nature. But nevertheless it is possible to remain in the being of simple common and undetermined nature. But if it is asked in what and where it remains according to that being, this in the next following chapter will be declared.

But to that which is said that Aristotle says, that the universal is everywhere and always, but the singular here and now: it is to be said that true is what Aristotle says, that the universal in the universa-

-sal accepted, does not discern place or differences of place or time: because it is undetermined, and common to all place and time: but according to its same substantial being it is made

here and now when it is determined in the particular to this and that.

But if anyone should say, that according to this the same is in many things differing in time and place and substance: it is to be said that this is not inconvenient concerning that which is a simple and communicable nature: because rather this is necessary, because communicability follows its simplicity. But in determined and distinct being it is not in many things divided by substance, place, and time. And therefore of the same reason is man in all time, and in all place, and in all individuals.

But to that which is said, that the universal is incorruptible, but the singular corruptible: it is to be said that this is true: because otherwise the science would not be concerning it: but from this it does not follow, that the being of the universal would be separated from the being of the singular: for everything is said to be incorruptible or corruptible by reason of the principles constituting its being. And therefore since the being of the universal according to that which truly is universal, that is, according to that which is simple and indistinct nature, does not depend according to being except upon simple principles, it will follow sometimes, that it is incorruptible: for it is proved in the last part of the book *On Causes* that the simple is incorruptible. But this same thing as determined and distinct in the singular according to the being of the particular, which gives it determined being, on account of the adjunction of corruptible principles nothing

prohibits being corruptible. And the same thing is corruptible and incorruptible by comparison of diverse principles. And this Aristotle does not disprove in the book *On Heaven and Earth*.

But to this that they say it cannot be denied, that the universal has common being in which many are united and convene in substance and reason: we say

that this is true: and this being is proper to it, and it does not have it from the singular: but neither can this be denied but that that same common being may be determinable and designable in the singular: because otherwise it would not be communicable in singulars: and through that distinction that being does not become diverse according to substance, but only is made having a diverse mode of being, which does not make simply a diverse being, but one being double from this that it accepts a diverse mode of being, as has been said quite often.

But if anyone should say, that as Aristotle says, with us moved those things are moved which are in us: and through this it is understood concerning the motion of corruption: and thus with the firsts corrupted it is impossible that the universal remain: it is to be said that this is entirely true what Aristotle says, and so it is understood, as has been said. And it is true that the universal is corrupted in those things which are corrupted, but it is corrupted according as it is in them. For it is in them according to principles determined and distracting it to the being of the particular.

And thus it is corruptible in this mode, by which in the book *On Causes* it is said, that the incorruptible is, what is brought down upon that which is corruptible, and is corruptible through another and by accident. But nothing prohibits but that it remain according to substance and the being of simple and indistinct and not particulated nature.

### CHAPTER VI

### How the universal is in the soul, and how in itself, and how in the singular, and in which it may be more truly according to the being of its nature.

But there is a very difficult question, how the universal is in the soul, and how in itself, and how in the singular, and in which it may be more truly according to the being of its nature. For that it is in the soul, is supposed from the words of all the Peripatetics saying, that the universal is while it is understood, the par-

ticulare [particulare] however while it is sensed [1]. Moreover Averroes [2], and Avicenna say, that the intellect acts universality in forms. Moreover the universal in the intellect, as Aristotle says, is the principle of art and science: nor could it be the principle of art and science, unless it were in the practical and speculative intellect. For art is the factive principle of beings in reason, and therefore it is in the practical intellect. Science however is the habit of conclusions proved from the principles of speculation, and therefore it is in the speculative intellect: and thus it is neces-

sary that the universal be in the intellect. There is again the universal according to the being of simple nature, to which it happens to be universal according to its communicability: for it does not have this from this that it is in the soul as the principle of art and science. There is also the universal in the singular communicated and distinct from the individuating [principles] and matter.

Let it be asked therefore, according to what mode it is divided in those, since it of itself is one, and the same is undivided and indivisible according to essence. Moreover color would not be in a terminated body and in the perspicuous [medium] and in the seeing eye, unless it were one and the same agent [acting] it in all those, which is of the formal essence of color: and this is light or lumen, in the act of which color moves the sight: which same thing is diffused in the surface of the terminated body. And that which truly is one and the same according to the act of the perspicuous according to the act of the illuminated: and so it seems to be also in the form of the universal. For it is necessary to be one which may act it in itself and in the soul and in the singular: because otherwise it could not be understood how it would be in those three at once and once undivided according to essence, although according to being something be divided.

It is also asked, in which of those it be more truly and nobly and evidently according to being? And again it is asked, whether according to itself it be in the soul, or through its likeness alone? just as Aristotle seems to say [3], saying, that things

are not in the soul, but the likenesses of things. That it be more noble and true in the soul than elsewhere, seems through that consideration of Aristotle in the sixth [book] of the *Topics* [4], where he says, that a being is prior and truer and more evident where it is in rest, than where it is in motion: and he does not accept rest according as it is opposed to motion privatively or contrarily: but he accepts rest for any immobility through which it is impossible for a thing to be subjected to motion or change. But thus the universal is not in the singular, but thus it is in the soul: more truly therefore it is according as it is in the soul, than it be in the singular. But this seems very irrational, because it gives being, name, and reason to the singular, and this it does not give to the soul. But a thing is more truly in that to which it gives being and reason, than in that to which it gives nothing of such things. Nevertheless in the end also of the *Posteriors* [5] Aristotle seems to say, that the universal rests in the soul, where he says from every resting universal in the soul one besides the many: which since in all it is one same and the principle of art, it is also of science. It seems therefore that it be more noble and truer in the soul than outside the soul.

To this however if anyone well knows the position of the Peripatetics, he does not have difficulty to determine and respond. It must be said therefore first, that the universal is one in number and essence in the soul and in itself and in the singular, nor does it differ except according to the being determining it to this or that: for accepted

according to simplicity in itself it is according to itself: but as the principle of art and science it is in the soul, and as communicated to the being of particular nature it is distinct in the particular.

And if it be asked what it be one, which makes it to be in these three: it must be said, that the induced likeness concerning light and-

colore [colore] is good. And it must be said that that one thing which makes it to be in the three, is the power of the first intelligence, which is the cause of the universe to be in all: of which also the simple nature itself (which is this that is universal or that) is a touching ray. And because such contact is manifold according to the diverse natures to which it reaches, therefore universals are many, reducible nevertheless in some mode to one, which is the first caused of the first cause. Moreover this one light of intelligence is extended through every nature and soul, just as the light of the sun extends itself through every nature and soul in that which is its near image. And the intellectual soul makes and operates and finds its forms under the species and form of light, just as the light of the sun also makes color in the perspicuous or pervasive, which indeed the sight accepts through that which its organ is composed of the perspicuous: it accepts nevertheless in the power of life and sense through this that the eye is an animated sensitive perspicuous and determined body: and it accepts clear or dark through this that the surface is clear or dark. So also the light of the first intelligence, which is the fount and cause of all forms, makes

and brings in the forms which it has accepted in itself indeed simple and indistinct, and therefore universal and constituted in simple light: which (because the universal is everywhere and always) according as they are so, are everywhere and always, are incorruptible and immobile and innumerable. Moreover according as they are terminated to this or that, so they accept a diverse mode in being. And in the soul (which is the principle of intellectual life) they are accepted, as principles of work or speculation: since such a soul and image be the instrument of the light of intelligence, in sensible matter (which is not except the subject of the operating intelligence) it brings them in, as they are the principle of being of this or that singular. And therefore one and the same is the essence in itself and in the soul and in the singular: but in the soul according to spiritual being, in the singular according to material and natural being, but in itself in simple being.

And that which Aristotle says that truer being is in which it is as in rest, It must be said that truer being is said doubly: for it is truer according to the proper act of nature, and truer according to the property of the constituents. And truer indeed according to the substantial act of the nature itself it is in the singular, to which it gives substantial being and name and reason: which is the proper and substantial act of the common nature. Moreover according according to the truth of the constituents of that nature it is truer both in the soul and in itself, than in the singular: because there it is purer and more unmixed with alien

nature: just as gold is said truer which is more unmixed with alien nature. And so is understood the induced consideration of Aristotle in the sixth [book] of the *Topics*. Moreover that which in the end of the second [book] of the *Posteriors* was induced, was brought against the mind of Aristotle, although it makes for the confirming of that question. For Aristotle intends there the acceptance of the universal from many through experiment and memory: which is said to rest in the soul, when the soul acquiesces to itself not finding an instance of the universal acceptance.

Moreover that which is asked, how it be in the soul and in itself and in the singular: I say with Aristotle and the Peripatetics, that it is in all these through its real presence, and really accepted: which presence the light of intelligence makes, as was said. Moreover that which Aristotle says, that things are not in the soul, but the likenesses of things: it must be said that things are called singulars which alone are established being in nature. Moreover likenesses are universals, which, as Boethius says, are not except the essential likeness of their supposites and singulars: which is clear from this, that that which is in the intelligent soul, does not become in it except through abstraction: but abstraction does not become except from the individuating [principles], which and material [principles] being separated there remains that which is everywhere and always, which through the light of intelligence-

prius [prius] is effected, and which through the intellectual nature which it participates in

its substance, is the straw [stramentum] of intelligence, in which it spreads true forms by its light, which is perfected according to the operation of life by contemplating and operating.

This seems the true determination of this question, according to that which is handed down in the science concerning the intelligences, concerning which Aristotle speaks in the second [book] of *First Philosophy*. Know nevertheless, that many of the Latins say otherwise, against whom I do not contend: because I do not study for contention, but for explaining the opinions of the Peripatetics. Moreover that which is said, that the universal is while it is understood, and the particular or singular while it is sensed: was not therefore said, that from the intellect of the one understanding it accepts universal being, or from the sense it accepts particular being: for this was the error of Pythagoras, which Aristotle impugns, but it was therefore said, because it is not accepted in the intellect except in the light of intelligence, and thus it is universal: nor is it accepted by the sense except distinct by a sensible accident, and thus it is singular. And this is the solution of the induced question.

### CHAPTER VII ### *How the universal be produced in being.*

It also moves many, how the universal is produced philosophically, and not concerning that production by which God produces all things in nature by procreation: for according to physics nothing is created, except what is produced with no other certain thing produced: and thus only

being is produced through creation, others however are produced through information, just as is determined in the science of the book of causes [1]. In this mode therefore let it be asked, how the universal is produced in being? since indeed the product of the producing and acting intelligence becomes the term, and to produce and to act through the intellect, but the term of the action be the composite and this somewhat: since the universal be produced, it seems that the universal be a composite and this somewhat. This however is false, since the universal be a form, and a "of what sort somewhat" [quale quid], and not this somewhat [hoc aliquid].

This however still seems from this, that that which is produced in being by the intelligence, through exemplar and idea, is in it: not however through idea and exemplar is it in the intelligence, unless it is this somewhat and composite: for otherwise it would be necessary, that there were several ideas of the same, some indeed according to form, some according to matter, and some according to genus, or according to species, and some according to differences: which is very absurd.

Moreover it is necessary that all things be produced by the acting intelligence in as much as they are in perfect nature, and existing this somewhat. If therefore by the acting intelligence (which is the first cause, or some other of the second causes) the universal is produced, it seems that the universal be this somewhat and composite from matter and form.

Still further this seems from this that art imitates nature in as much as it can [2]. Moreover that which is produced by the artisan and is in the artisan by mode of exemplar, is not a simple form, but a composite, as a house or a tripod. Thus therefore it seems also to become in the production of the intelligence in nature: for we suppose, that the whole work of nature is the work of the acting intelligence, whose power also informs the seed of generation, from which the things of nature are produced.

Moreover in every nature the product is always a thing of nature. But a thing of nature is not except a hypostasis supposed to the common nature and standing under by itself. But such a thing standing under the common nature, is an individual and singular. If therefore the universal is thus produced, it follows that the universal be singular: which is inconvenient.

To all these however and similar to these it is not difficult to respond. For the universal-

secundum [secundum] as it is produced in being by the acting intelligence, or generation, which is the instrument of the acting intelligence, is not produced except in a hypostasis, which is this somewhat in that common nature or that. And therefore since it be not produced as existing by itself alone, it is not necessary that the product be this somewhat. In this mode all objections proceed: and therefore it is clear that they are worth nothing. Moreover that which is produced in another, as Aristotle teaches in the *Physics*, is produced doubly: either from the

consequent, or by accident. From the consequent however because this generator is a man, therefore it follows that a man generates a man, and that this generator is a man and an animal and a substance, and so concerning others: and so in every substantial predication: so that Aristotle says, that a house is from a house, and health from health, and so concerning others: because the product is always to the form of the producer, for the reason that it is necessary for the equivocal to be reduced to the univocal. By accident however is produced, what happens to the product from the production itself. For if it is produced through generation, it is produced to the likeness of the form and species of the generator: and therefore by accident the produced is a son, and the producer is a father, and so concerning others. Moreover the universal is produced from the consequent in the being of nature: for which reason the Author of the *Six Principles* says, that nature operates occultly in those: and therefore also in the *Physics* of Aristotle [1] they are called second substances. If however the universal be considered according to itself, it is the image of light in the thing of nature. An image, I say, of the light of the acting intelligence: which light is terminated to this somewhat and incorporated to that: and in this mode the universal of nature is produced in being by the acting intelligence, which operates through its intellectual light in every nature, and is the cause of the natural thing in all: which light indeed accepted in itself is in the universal, and by reason is universal: ac-

cepted however as determined to this somewhat, and incorporated to that, it is the being and particular substance giving substantial being and reason to the singular.

### CHAPTER VIII. ### *Whether the universal be form, or matter, or composite: and if form, what sort of form it be?*

It is however still a doubt among some, whether the universal be form, or composite, or matter: and if it is form, whether it be form of the whole, or of a part? For that the universal be not matter, is clear from this that matter to that in which it is, neither gives being, nor name, nor reason: all which the substantial universal gives to that of which it is the universal: therefore it is not matter. Still further matter is not the image of the agent in that which is produced. Moreover the universal is the image of the acting intelligence in that which is produced, as has already been proved. Still further everything which is predicated of that in which it is, is a form. The universal is predicated of that in which it is. Therefore the universal is a form. Still further nothing is communicable to many existing one in them according to essence except form: for matter is not communicable to many, except through division, so that it is not whole in singulars. Moreover the universal is whole in singulars. Therefore the universal is not matter, but form.

But because it is innegably true, therefore it is asked what sort of form it be? For there is form of the whole, as humanity is the form of man: or form of a part, just as the soul is the form of the

human body. Moreover the form of a part or of matter is not predicated of the thing of which it is the form, but the universal is well predicated. The universal therefore is not the form of a part or of matter according as matter is perfected through form. In the same mode it seems to be proved, that neither the form of the whole-

is it: because even humanity is not predicated of man, and yet it is of the reason of that of which it is predicated.

To solve these and similar things however is not difficult. For it must be said, that the universal is a form, and that it is the form of the whole. But the form of the whole is designated doubly in a name: for it is designated as form only, just as humanity is the form designated as form only, which is the formal essence: and therefore it is not predicated of that of which it is the form, because man is not his own formal essence, nor any other of those things which have forms. It is also designated as the form of the whole saying the whole being of that of which it is the form: and then it is designated through the being which it gives to that in which it is and the name, just as "man" says the formal being which the form of the whole gives to this composite which is this man. And this Aristotle [1] teaches saying: when I say "heaven," I say the form: when I say "this heaven," I say the form in matter. And the form is a universal predicable by name and reason of that of which it is the universal according to substance: the proof of which is, because unless such a universal were the form, the definition given

according to the name of the universal would not say the whole being of the thing, nor the whole quiddity of it according to that name according to which it is defined, whether the name of genus or of species. It remains therefore, that the universal be the form of the whole designated as saying the whole being: on account of this also it is predicated of that of which it is predicated, so that even immediately with the subject placed it is conceived in it through the intellect whether the subject be in act, or not: for at all times it is true, that man is an animal, whether man be, or be not: and that animal is an animated body, and that an animated body be a substance: but from this it does not follow, therefore an animated body is a being according to act. And therefore Avicenna [2] says, that being and existence happen to that which is: for it is true that man is an animal, whether some animal be, or be not: and it happens to it to be, or not to be.

These therefore are the things which, by digressing from the purpose, and assuming the business of a higher science, seemed were to be said concerning universals for the perfection of doctrine.

Returning therefore to the purpose let us say, that since for the science of the Categories of Aristotle it be useful and necessary to know what genus is, what species, what difference, what property, and what accident is. Furthermore being useful for demonstration and definition and the science of divisions, I will attempt to hand down a speculation or compendious spec-

ulative science of these things (which are called universals), brief indeed, but nevertheless sufficient and easy, which may be suitable for those to be introduced, handing down the science through assignments and likenesses, attempting to approach those things which have been said by the ancients, so that what sort of things were said may be received. This however I will do by abstaining indeed from higher questions: which although they have been touched upon for the perfection of doctrine, nevertheless cannot be determined from the principles of the proposed intention. But conjecturing the simpler questions concerning these universals moderately between a subtle and a rude treatise, to treat from probables or likenesses, is to conjecture: for it is necessary to bring forward many such things, so that faith may be made concerning that of which it is treated.

Lest however those things which cannot be treated from the principles of this science concerning universals be hidden, soon, that is, at first glance it occurs to be asked concerning genera and species, namely whether they subsist, or are placed in sole, naked and pure intellects: if they also be subsisting things placed outside the intellect, whether they be corporeal, or incorporeal: and whether they be in this or that mode, whether they be separated according to being from sensibles or singulars, or be placed in the sensibles themselves. And certain other things surrounding such difficulties I will refuse to say

in this book. For business of this kind is highest, because high-

proper to a highest science, and therefore it is in need of a greater and more subtle inquiry: higher indeed as to the nobility of the subject, but of a greater inquiry as to the subtlety of demonstrations. For in these two things sciences differ, as Aristotle says in the beginning of the book *On the Soul* [1]. But that which seems necessary to be said about these things probably in the manner in which the ancient Philosophers have treated them, and of these especially the Peripatetics (whom we have undertaken to follow here), I will now attempt to demonstrate by way of introduction.

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### CHAPTER IX.

### *How the universal is predicated of the five universals, and concerning the sufficiency and order of the five universals?*

But because among the incomplex (*incomplexum*) things it first occurs to treat of universals: it must first be seen how the universal is said of the five which have been introduced. For the universal is a simple nature, communicable by its simplicity and determinable to a particular in which it is itself by name and reason. But I say by the essential reason which corresponds to the universal which is predicated: and I say this on account of property (*proprium*) and accident (*accidentia*), which although as universals they cannot have perfect definitions, nevertheless according to those which they have, they are

predicated of those of which they are predicated as of substances, as white of this white thing, and capable of laughing of this capable of laughing, and so of others.

Since therefore any one of these five is called a universal, it must be known that the universal is not said commonly of them as a genus, but as a common of proportion to one which is called common according to analogy. Now the one to the proportion of which the universal is said of these five, is that which is apt by nature to be in many and of many. But this neither by one reason belongs to those which substantially (that is, through what is substantial) are in many and of them, and to those which through some accidental thing are in many and of many: nor by one reason does it belong to that which through an accidental consequent to nature is in many and of many, and to that which is through a common accident which is an accident of the individual. Furthermore, neither of those which through an essential are in many and of many does it belong by an essential reason: for some of these are in many and of many through an essential which is what, and as a subjected substance in them, just as a genus which is like a foundation in which the being of the species is formed and founded: and just as a species which is the whole substantial being of the individual, because whatever follows the species is an individuating accident, also another is in many and of many through what sort of thing which makes the foundation to be in a genus. And thus it is evident, that it is not by

one reason that these are in many and of many: and this belongs by priority to genus and species, but by posteriority to difference. Moreover since being in many and of many previously belongs to that which is in many and of many differing in species and number, than to that which is in many and of many differing in number alone: it is certain that the universal belongs priorly to genus, and posteriorly to species. For this is the definition of analogical community, as Aristotle teaches in the fifth book of *First Philosophy*, that an analogically common thing is simple in one, but in the others it is not except according to a certain proportion to that one. And through this it is evident, that the universal is not predicated of these as a genus, or as a species, or as a difference, or as a property, or as an accident: but it is predicated of these as common according to analogy proportioned to the community of a genus.

Now the number of these universals is evident from this. Everything that is in many and of many, is either in them and of them through something substantial, or through something accidental.

If indeed it is in them through something which is substantial in them, it ought not to be divided, that either it is present through a substantial which is a part of being, or through that which is a whole, as some say: because what is a part, is not predicated of that in which it is according as it is a part. But it ought to be divided thus, that if it is in many and of many, either it is

in them through that which is being according to the potency of inchoation: or it is in them through an essential which is the whole according to the act of the perfecting being itself: or it is in them according to the whole perfect and constituted being. And indeed in the first way it is a genus, but in the second way a difference, but in the third way a species. And it is clear that the division is sufficient and from immediate things: because a substantial which is in many and of many, either is a principle, or something principled. And if it is a principle: either it is a principle according to potency, or according to act. But if it is something principled and perfect in substantial being, then it is in another way from the two ways mentioned. But if it is in many and of many according to an accidental being existing in them, it cannot be in them, unless either according to an accident of common nature through which it refers to singulars, and this is a property (*proprium*): or according to an accident of the individual or singular, through which it refers to common nature, and then it is an accident (*accidens*). For Socrates is capable of laughing through a common nature which is in Socrates. But a man is white through this that Socrates is white, in whom the nature of man is. And again it is clear through this, that this division is from immediate things: because it is in nothing, except either a common nature, or a hypostasis or a supposit or a singular which stands under a common nature. And since a common thing which is in many and of many cannot be verified in many ways through

an immediate division: therefore universals cannot be formally different except five.

Through this also the order of these five universals is clear: for it is certain that those which are in many and of many through an essential which is in them, are prior to those which are in many and of many through an accidental which is in them. Furthermore, what is in many and of many through an accidental flowing from nature, is prior than that which is in many and of many through an accidental of the individual which is an infinite accident. Moreover, what is in many and of many through an essential which is in them according to the potency of inchoation, is prior than that which is in many and of many through an act distinguishing and determining to the being of a species: because always in the same thing potency precedes act. But each of the two is constituted from these, as both a principle and a principled thing. And thus first is genus, and consequently difference, and thirdly species. And although this is the order of universals by nature, according to which they have also been enumerated in what has gone before: nevertheless in the order of the treatise we will place the treatise concerning species before the treatise concerning difference: because on account of the correlation of genus and species, the treatise of one depends upon the treatise of the other: for the reason that one of the relatives cannot be known definitely, unless the other is also known.

### CHAPTER I. ### *Concerning the diverse signs of genus.*

First therefore in the treatise concerning universals it must be spoken concerning genus. But because genus according to the logical intention cannot be defined, nor definitively known, unless first the multiplicity of this name, *genus*, be determined: therefore in the first place the multiplicity of the name *genus* must be determined and distinguished, and especially in those modes which have some likeness to that intention of genus, according to which logicians use genus. Concerning other intentions [1] because they are not valid for the proposed intention, it is to be omitted. For it contributes nothing to the purpose to know masculine genus, or feminine, or active, or passive in grammar not to the proposed intention. And therefore it is not to be interposed here concerning similar intentions of genus.

It is spoken however through likeness and through property, to which also genus spoken through likeness is transferred. Through likeness however it is spoken doubly. In one way namely genus is called a multitude of some things having themselves in one certain mode to one certain thing, which has something of itself in that whole multitude, so that it is in singulars of them: in which also being common in all they have themselves in a certain mode according to agreement to one another, so that anyone has a likeness to another in that which is in himself from that first one, which is the cause of likeness in the whole other collection. According to which signification the genus of the Romans is called the whole collection of the parentage which descends from

Romulus through successive generation. For this whole is called the Romulean genus according to the habit by which it has itself to one first parent, namely Romulus. And in this genus that collection is distinguished from that collection which descends from some other parent, just as from the first genus of Priam with which that whole collection is called the genus of Priam. This however must be noticed in that signification of genus, that one thing is in all those who pertain to that generation. And this is the seed of propagation poured from Romulus into that whole collection.

In a second mode still genus is called through a mode annexed to the before held, that which is the principle of each generation or generated multitude, by which it was most strongly generated and from which it arose with strongest power. And this is spoken doubly: either from the father, who is the first generator in that genus: or from that place in which someone was generated. And in the first mode indeed we say that Orestes indeed has his genus from Tantalus his great-grandfather; but we say that Hyllus has his genus from Hercules, from whom as from a great-great-grandfather he was generated. In the second mode however (according to which the fatherland or place is the principle of generation) we say that Pindar is a Theban by genus, but we say that Plato is an Athenian by genus. For just as the father is the principle of generation through the translation of the seed from which into all-

-there is poured from one the formative power of many according to propagation, so also we say that the fatherland or place of generation is the principle, because in the place and center of the place of generation the whole power of the celestial period is united, as Ptolemy says, and is diffused into all born in that place. And therefore those who are born from one place frequently approach more to one color and to one manner. Whence also the elements in diverse places are very diverse in their powers by which they agree to the constitution of generated things. In this mode also it is clear, that the multitude of those born from one father or from one place is referred to one in which it is contained through the one which is in all, and from that which is the principle of that multitude, it is derived into all.

These two significations of genus however differ: because the first is of one partitioned into many, but the second is of many looking back to one, which is the principle of their generation according to the mode of a parent or of a place in which someone is generated to the complexion or figure of that place. For that which certain ones say that the fatherland and place is not the principle of generation, except as to figure, is inwardly false: because thus the whole science of the generation of each one would be destroyed, which in the book which is called in Arabic *Adarba*, but in Latin *Quadripartitum*, Ptolemy showed: in which he shows that the power of the period is gathered in the center of the place of him who is born: and from the power

thus gathered in the center of the born, the born receives complexion and form and figure and color and manner and fortune.

And this second signification of genus indeed (on account of this that it is in one diffusing itself into many according to the potency of its power, in which all are united and contained) seems readiest for the declaration of logical genus. According to this reason are and are called, those who descended from the genus of Romulus. Nor would that collection be called one genus, unless there were one containing them as a principle from which through generation they descended. And in this mode are called many Cecropidæ, who from the genus successively descended of the first Cecrops: and those nearest of these according to the line of the same consanguinity. For thus many would be from one, just as in logical genus from one first genus through the division of differences there would be many species, in all which the nature of the genus is saved in potency or power to the determined species, just as also the seed of the first generator through successive generation is formed to this and to that one. It is clear therefore, that the first mode of genus is caused by the second, and is reduced to it as to a cause. And therefore the second mode is more principal than the first, and readier to designate logical genus, just as through likeness it can be designated by describing.

By priority therefore as to that likeness the principle of each generation is called genus. From then on however and by posteriority the collected

multitude of those which descended from one principle like Romulus is called genus, as was said in the first designation of genus. The proof of this however is: because dividing or discerning the multitude or collection and separating from others, who are of another genus, we said before that collection that the genus is of the Romans or of the Romuleans, and in this it is separated from other collections: nor would we call the multitude a genus, unless first there were understood one principle of generation, from which that multitude descends. And therefore the first mode of genus is not called genus, except through the second, and therefore the first is reduced to the second as to a cause. It was also placed first by us, because it makes less to the purpose: just as also concerning both these significations we speak first, before concerning logical genus, so that the less intended may be dismissed, and placed further from the purpose. And that it may be known, that like things are perfected little by little and step by step for the declaration of the purpose. And therefore also we say the intended genus last after all like things.

It must however be noticed, that from one mother from whom many descended, is not taken-

a similitude is not drawn to a logical genus: because a mother is not the formal principle of many, but the material, and as something formed, and not as something forming. But a logical genus is a principle as a form: because otherwise it would not be predicated of that of which

it is a genus: but it is as an indistinct form, which is the whole being of the species according to an unformed and indistinct being, distinguishable nevertheless to the form of a species.

And although from place a similitude is drawn to the designation of a logical genus, yet from time no similitude is drawn: because time is the measure and number of motion and mutation. And therefore it is in becoming, and is not principally in the being of generated things. Whereas genus is of those born and of those constituted in being. On account of which also in the book concerning intelligible things place is said to be the measure of a being, but time is said to be the measure of motion, because its being is in motion and mutation.

But it must be attended to, that Avicenna says [1] that these two modes [2] are extended also to artificial things. For sometimes *all leather-workers* are called those who are of the collection of *leather-workers* from some one who excelled in that artifice: just as sailors are called *Calepsites* from a certain Calepsus, who flourished in the nautical art: and smiths are called *Tubalcaites* from Tubalcain, who invented the art of smiths: and musicians are called *Pythagoreans* from Pythagoras, who perfected those things which are in the art of music. This however is less proper: because that which is in all from this principle, is not substantial and natural, but accidental to those in which it is. But a logical genus is present in all species as a nature and substance. Therefore in these ways genus is said

in any whatever. But it is taken otherwise among Philosophers, as will be evident in the following chapter 3.

Collecting therefore summarily the things which have been said, we say that it seems that neither genus nor species is said simply or in one mode

and in one intention. But I say it seems, and not, it is: because these acceptions of genus are rather in our acception and cognition, than in the nature and existence of the thing. And indeed firstly as to us a genus is called a collection of many holding themselves in a certain one way to a certain one thing, which is the principle of that collection according to generation, and which hold themselves in some way to each other in one thing which from the principle of their generation is in each single one of them according to that whole collection. According to which signification the collection of the Romans is called a genus from the habitude of one, I say however Romulus. And it is called the genus of that multitude through a relation in some way to each other according to that which is in them from Romulus. And this is, because they have to each other that kindred which is from that Romulus according to the division or separation from other genera of other grandfathers, which is called or denominated from other fathers or grandfathers.

Now again a genus is said otherwise that which is the principle of one generation from that parent who begot, or from that place in which

someone was generated on account of the cause which was posited in what has been previously discussed. For thus we say indeed that Orestes has his genus from Tantalus: but Hilus with his house and family to have his genus from Hercules. And again indeed from a place declaring Pindar to be a Theban, but Plato an Athenian. For indeed a fatherland is the principle of the generation of each one, just as also a father, as was expounded in what was previously discussed. But this second acception of genus seems to be the most ready signification of genus. The Romans therefore were called Romans, because they descended from the genus of Romulus: and they are Cecropidae, who descended from the genus of Cecrops: and their neighbors for the same cause are of the same genus. And priorly indeed, that is, priorly it is called the genus of each single generation's principle: from then on however and by posteriority even the multitude of those who descended from one principle is called genus, as from Romulus the Romuleans. Of which this is a sign: for dividing this genus or discerning and separating it from other genera, we said that all that collection of Romans was the genus of the Romans. There is however in two things a dissimilarity to logical genus. In one indeed: because the principle of generation is not according to substance and according to itself whole in the collection which calls itself genus, so that it be whole in any whatever. But logical genus according to itself whole and according to substance is in the collection of species and in any species whatever:

on account of which also the principle of generation is not predicated by name and reason of the multitude of many who descended from it except denominatively. For they are called Romans or Romuleans, not Romuluses. But logical genus is predicated by substantial predication of those of which it is the genus. In another thing also there is dissimilarity: because the collection which is called genus, is as it were an integral whole to the genus or in the genus, of which anyone is an integral part, and all are the whole. But logical genus is an essential whole, of which any species is a subjective part. In this nevertheless there is something of likeness: because although logical genus according to the whole essence be saved in any species whatever, nevertheless it is not saved in any species according to the whole scope of its power. And this has something of likeness with a predicative integral whole, whose power is integrated from many particular powers.

### CHAPTER II. ### *Concerning philosophical genus, and how it is assimilated to others?*

In this way therefore (as genus is accepted in civil affairs) philosophers do not use genus: but they use genus in that intention of signification, in which it is said, genus is that to which species is supposed by direct and immediate supposition. For genus follows difference, and difference is in the genus in potency, and therefore in some mode it is under the scope of the community of the genus: but nevertheless it is not placed as substating under the genus, but is joined laterally to the determination and contraction of

the genus. It will be however of the genus to the division of its own power. And therefore neither the divisive difference, nor even the constitutive difference is directly supposed to the genus, as a substance standing under the genus. Nor even is the species thus supposed to the difference. But the constitutive difference is in the genus for determining the power of the genus and contracting it to the constituted species, and it comes as it were laterally to the species: on account of which it is not supposed to the genus, as a what (*quid*) of the genus, or as a of-what-sort somewhat (*quale quid*) just as the species: and therefore difference is not that to which in the order of nature species is supposed, but it is of the whole species and genus. Although however the individual be supposed to the genus, nevertheless it does not immediately substate by position. Still it does not even subsist: for the genus is not contracted in it for itself, but the species: nor is the species contracted in it, but rather according to being it is divided by the division of matter and the division of accident, and of the individuating: which is not properly to substate in the order of the substating and superstanding: but it is the diffusion of the substating and superstanding to material multiplication. The property also is after the species according to the order of nature. Nor even has the property to substate according as it is a property, but rather in being, and after that the accident. And therefore alone genus is by itself and properly, to which species is supposed. For since genus says the order of the superior to

the inferior among Philosophers, its signification is best notified, when it is determined through that to which it says the order. And when the signification of genus among Philosophers is determined, perhaps this intention was called so: because in this intention it has a certain likeness to the genus spoken in civil affairs according to both of the pre-induced intentions. For genus so called, the principle-

is a certain principle of the species which are under it, not indeed material, but also effective, as a father. For a father is, as Aristotle says [1], he who has something of himself in the son. For that which has something of itself in a formally effective son, is the whole father: for the father is of the whole according to a formative principle in the seed, as a craftsman in an artifact. On account of which also Plato opines that seed is a small animal, which goes out from the generating one, and which is as a small father in quantity, but a whole and entire father in power. And similarly a genus is whole in a species according to substance: from which also a difference is produced forming the species and constituting it in formed being. And thus a genus is as a principle of generation, which in what has previously been discussed we called the principal signification of genus in civil things. But it is also a principle as the place of a species, in which the species is founded according to substance: and from it a species is determined to what and to a substance substanding by itself, and founded in some other thing: just as a thing is founded in the place of its generation and is

saved. Therefore a difference does not have the similitude of a place: because it existing as constitutive is founded in some other thing, and more so a property, and an accident. But a species is what is placed in a genus, and not only a place. Therefore a genus is to it holding itself as a father, and as a place, in as much as a father and the place of generation are principles. Now it also has a similitude to a genus which in civil things secondarily is said in some way of those holding themselves to something, and to each other, in this that a genus in that it is a genus, necessarily contains a certain multitude of species which are under it. Nor can a genus be the container of one sole species: for the reason that a species does not go out from a genus, except through opposite divisive differences: which (when they have been educed from a genus) will constitute several and opposite species of necessity. But not thus does

a species hold itself to an individual.

For a species does not constitute an individual by the division of itself, but it is whole in an individual through substance and power: whence by the determination of matter from an individuating accident it is individuated. Therefore only an ambient genus containing species and a multitude, is contained in one nature of genus. For a difference since it holds itself to a genus as divisive, is not containing, but separating and acting into a multitude. But a property since it is consequent to a species, and a common accident consequent to an individual, cannot have

the reason of a container, but rather they are contained in others according to their being and reason. But when a genus is said in three ways in the use of speakers, the discourse among the Philosophers and in philosophy is concerning the third: which as has been said, perhaps was said in the similitude of the others. But I say perhaps, lest it seem otherwise dissimilar on account of the two dissimilarities determined in the preceding chapter. And indeed we can summarily touch upon this, saying that otherwise than in civil things again a genus is said to be that to which a species is supposed, to a certain similitude of these genera (which were said in civil things) perhaps thus said. For this genus was translated from civil things to philosophy. Therefore a genus is a certain principle of species of this sort, such as Priam is a common father, and such as is a common place, as has been explained: and thus it has a similitude with the principal intention. For a genus seems in one common nature to contain the whole multitude of species which is under it: and in this it has a similitude with the secondary signification of genus. Therefore when a genus is thus said in three ways, the discourse among the Philosophers concerning genus is concerning the third mode of its signification.

### CHAPTER III. ### *Concerning the definition or description of physical genus.*

Genus therefore since it be spoken in three ways among Philosophers, according to the third the intention of its signification is taken. And according to this intention of genus they describe

genus saying: Genus is that which is predicated of many things differing in species in that which it is (*in eo quod quid est*). Which description is of genus insofar as genus says the order of one to another, just as of the superior to the inferior, not simply, but in the thing itself which is so ordered: just as animal is a genus, and animated body, and substance: for substance and living thing and animal are those things to which it happens to be genera. But the generality which is in them says the reason of this order or habitude by which they are ordered to their inferiors: on account of which it was said in what was previously discussed, that genus is that to which species or a multitude of species is supposed.

In all substantial commons it is thus, that from the community itself by which one is substantially in another, other multiple analogies or communities of proportion result. For from this, that animal is in man and of man, and is in the ass and of the ass, and so concerning other species, from a certain similar respect of animal to the supposed species it results, that it is common and universal as a genus: because the name of genus was imposed on animal from such a respect: and so concerning species, and concerning a similar respect of man and of the ass and of others to animal: which all species because they participate in the name and reason of animal, another community arises, because each one of the inferiors so looking back to the superior is called a species: for to the likeness of such a respect the name of species is imposed. And so it is in the

respect of individuals to the species: for from a similar respect of this one to man and of that one and of another, and so concerning others, it is effected that this one is a supposit of man and that one and all others. From this however, that by one likeness in any nature the common is determined, anyone is called a particular man: and from this, that similarly all are determined by a discerning accident particularly to the common nature, anyone is called an individual. And thus from the respects of the common nature to inferiors, and the respects of the inferior to the superior, many communities are caused: and according to any name whatever a universal predication is made. Because nevertheless there is one only thing, which is predicated by the name and nature and reason of genus, there is one only thing which is the genus, and others are predications by the mode of genus predicated by accident, which happens to the predicate or subject from such a respect to one another, or such to the superior. And from such a thing it is, that it does not follow when it is said: man is an animal, and man is a species, therefore animal is a species: or man is an animal, animal is a genus, therefore man is a genus: or Socrates is a man, Socrates is an individual, therefore man is an individual. For in all such things there is the fallacy of accident: for such a community is caused by an accident, which is founded in the mode of the respect of the superior to the inferior, or of the inferior to the superior, or even in the respect of the particular to the common nature: which all

respects are caused from this, that the common nature is understood in the less common nature, which is species or individual. And therefore it is clear that it does not follow, "genus is predicated of many differing species: therefore genus is a genus": and thus one would go into infinity. For to that alone which is genus through the nature which is in many differing in species does it belong to be a genus: so that genus says the reason of order, and of predication: animal however that which is so predicated, is predicated as a genus. Notice however, that to be predicated is the same as to attribute through a mark of composition: for when one is attributed to another by means of composition, which this verb "is" signifies, then it is predicated: and when one is divided from another by means of-

negation of such composition, just as when it is said, "man is not a stone": then the stone is divided from him. And this occurs in the intellect composing or dividing: for in the thing itself without a mark of composition or division, one is in the other, or is not. But the intellect composing or dividing here cannot signify this without a mark of composition or division: and, so that it may signify this, it finds a mode of composition of one with another: and this is to predicate one of another, or to deny one from another. Moreover, this occurs sometimes essentially, and sometimes accidentally. Essentially, however, when one is taken in another through nature and substance. And this happens in three ways: for either it takes it as a prior nature in a

posterior one, or a common nature determined in matter, or a convertible one, and the same in the convertible. In the first way, indeed, it is predicated as a genus; in the second, however, as a species; and in the third way as a definition of the defined. Concerning the difference, however, it will be treated below. Genus, therefore, is that which is predicated in the said manner.

For no substantial common through which genus might be defined can be posited: because thus a substantial common would be supposed to every genus, which is not true: for when I say "animal," it is that which is predicated of many things differing in species. And if you ask what animal is, I say that animal is a sensible living thing which is predicated of many things differing in species. But when I say, "genus," it is that which is predicated of many things differing in species. If you seek to ask what genus is through something more common than it: because as has already been said, genus is a name imposed from an accident which is the reason of order, and the respect of a superior nature to an inferior one, in which it is substantially and taken in its intellect. And that name is transcending, nor can it be notified through another name of any certain signification: but it is necessary that it be notified through the infinite, that is, through a name of non-defined signification, by saying: genus is that which is predicated. And it is the same as if it were said: that which is predicated of many things differing in species is called a genus: although that, insofar as it is infinite, is unknown

and of uncertain signification. And thus it can be posited in the notification of a description or a definition.

Moreover, that which is added, "of many differing in species," is for this reason, because genus is not deduced to species except as divided through differences: which, since they are opposite and divisive with respect to genus, but constitutive with respect to species, must be several. A divisive difference, as Damascene says, is the cause of the matter of forms, just as division through matter is the cause of the number of individuals. And therefore the community of genus encompasses species constituted by opposite differences.

Because even if it were posited that there were only one species, as if we were to say there is nothing but man and no other species of animal, animal is still predicated of man as a genus: because it is of the power and natural scope of animal and of the aptitude of genus that it be divided by opposite differences. For not only is that a universal which is predicated, but that which is apt by nature to be predicated of many, as has already been said in what was previously discussed. And if those many differ in forms (which difference and number the division of differences makes, which divides the power of nature first and through itself), then it is predicated of many things differing in species, because genus is divided into differences by its divided power. For by one power genus is in one species, and by another in another: and such a division of species

is not through matter: for by the same power the species is in one individual and in another, nor is it divided, but according to its entire being, with its natural power remaining, it is in each of the individuals.

Now that which is added in that which is a what, is therefore added, because every superior which through essence and name and difference is in an inferior, is the what of it, according to what a quiddity is. And if anyone should say, that it is not the total quiddity, we say that it is its total being, but it is not the perfect being of that species: for the total being is in potency: and there is nothing of being which is not in potency before the ultimate act to which the motion of potency is terminated: but to be in potency is to be in a genus, and this is the true cause that a genus is predicated. Not only therefore because it is a form, but because it is a form and according to some mode speaks of the whole being. And what thus has itself to a subject, is predicated of it not through an accidental denomination, but by an essential predication.

And this is what is said by many, that there is a form of a part which is not predicated, and there is a form of a whole which is predicated. But it behooves to add, that the form which is predicated, is of a whole, and signifies the total being, and does not signify the essence of which it is the proper act: for *animality* is not predicated, nor even *humanity*: although an animal is the being of animality, and man is the being of humanity. Such a form therefore designating

the form of a whole and of being, is predicated, and not otherwise: and a sensible soul posited in place of an animal is not predicated, because an animal is not a sensible soul: and similarly the soul of a man is not predicated of man: for this speaks of the form of a part, and not of the whole being. But animality and humanity are not predicated of those whose forms they are: for they do not designate forms as the being of a subject, but as essences. But animal and man are predicated, because they designate forms, as the total being of a subject, either in potency or in act: of a subject I say of which they are predicated. And thus also in all accidental forms. And therefore man is risible, and not risibility; and man is white, and not whiteness. This is therefore what is said, that a genus is what is predicated of many differing in species in that which

is a what: for that which is a what and its being is that of which it is predicated. And therefore a genus is a universal which by an immediate and substantial predication is in many species and of many.

Thus therefore it has been demonstrated, that a genus is a universal and the first among universals; and how the community of a genus differs from other posterior communities denominated from accidents.

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### CHAPTER IV.

### *That the definition of a genus neither abounds, nor is deficient, and its declaration.*

Now that the induced definition of a genus is separated from all others, and in itself contains nothing superfluous nor is deficient in anything, is thus proved. For of those which are predicated, some indeed are predicated of one only, as individuals, as Socrates, and Plato: and appropriated through the nod of a demonstration, as this (masc.) and this (fem.) and this (neut.), according to every mode of demonstration to this singular. But others are predicated of many just as genera, and species, difference, proper, and accident, which are universals. Now I say an accident, which is a common accident, and not proper to any of the individuals. For an accident proper to one individual, is an accident which is called individuating: and this because it belongs to it alone, is predicated of one only, as Socrates, or an accident of Socrates, by which an individual man is effected, saying, Socrates is Socrates, and Plato is Plato, and this one is this one and not another, and this is this and not another, or even some man is some man and not another. But when we say, man is an animal, and we say with this, that an ass is an animal, and many others. And similarly in a species we say, that Socrates is a man, and Plato is a man, and many others: and that Socrates is rational, and also Plato, and many others. And similarly it is of a proper and of an accident, of which any whatever is predicated of many. From this, to predicate of many-

predicated of many, the genus has that it is a universal, and it differs from that which is singular which is predicated of one only.

Moreover, that which I say, that the particular or singular is predicated of itself and of one only, is not properly said: because properly speaking, as Aristotle says in the *Categories*, in the first substance there is no predication. And this is proved from the reason of predication which was posited in what was previously discussed. For to be predicated of another is to be this in that, and of that, and to understand, and to designate through composition. Since, however, nothing is in itself, as Aristotle says, the first substance cannot be in itself or be of itself, nor can it properly be designated to be of itself. And therefore the first substance is not properly predicated of itself. But when this occurs, that it is predicated of itself, this occurs with respect to us, and not according to itself. Unless perhaps it were said, that in such predications it is subjected according to that which it is, and it is predicated according to that which is to it. For thus some diversity could be of the subject and the predicate, and thus the predicate is understood, as being in the subject, and being of itself: and thus it is also in all things where the same is predicated of itself. And thus is understood what Boethius says, that no proposition is truer than that in which the same is predicated of itself. For in that the same is predicated of the same as that by which it is. And thus it can be conceded, that the first substance is predicated of itself as of one.

The particular, however, which is predicated of itself, is designated in three ways, namely as a singular in a name, as Socrates and Plato. Secondly in the sign of a demonstration to "this", as this (masc.) and this (fem.) and this (neut.): for by this sign of a demonstration to one only it cannot be predicated except of one only. But thirdly it is designated by Aristotle in the *Categories*, as a vague one, as "some man", and "some ox". And concerning this there can be doubt, whether it be predicated of one only, or of many: for Socrates is some man, and Plato is some man.

But it is to be considered in such things, that when it is said "some man", namely from the part of nature inclined to a part through a particular sign, namely to this or that part not determined. And so considered it has the predication of species in some way, and as to this it is predicated of many differing in number, or by a predication of genus, as when it is said, "a certain animal", or "some animal". So therefore it is not predicated by a proper predication, but of the nature which inclines to a part. Genus, however, is that which is predicated by a proper and immediate predication of many things differing in species. Some animal, or some man, can also be considered as a particular, or from the part of the particularizing to a determined part, and so it has nothing but the predication of a part, and so it is not predicated except of one only. And thus that which is said of the particular, that it is predicated of one only, is understood of a proper and immediate predication, and not of that which the vague

individual has by means of a common nature, whether of genus or species, through it inclined to a part.

Through that, therefore, which is predicated of many, genus differs from the particular or singular which is predicated of one only. For by a proper predication, unless perhaps one and the same particular were designated in many synonymous ways, as Socrates, handsome, curly-haired, and the like, which are synonyms, as sword, blade, dagger, falchion, just as it is said Marcus Tullius Cicero: nothing prohibits-

a singular from being better known under one name than under another, and so to be predicated as better known of itself according to what is under a less known name: as if I should ask, who is such a one? and it be said to me, "Tullius is Marcus": for it seems in some way to be closer to a proper predication. So therefore genus is distinguished from individuals through this, that it is predicated of many.

From species, however, genus differs: because although it be predicated of many, it is not nevertheless predicated of many differing in species as to the aptitude of nature, which according to what is a species, is not divisible through opposite differences formally according to the power of nature: but it acts into a numerical plurality through the division of proper matter, and the individuation of an accident, as is clear from the aforesaid. And therefore when it is said, that it is predicated of many differing in species, it is understood through the efficient cause: so that

the plurality of form and species made through constitutive differences made those to differ.

But if someone should sophistically object, that man, and ass, and lion do not differ, but agree in species: because any of them is a species. The construction will be in the habitude of a formal cause: and thus a sophism according to amphiboly occurs. Through this, that it is to be predicated of those differing in species, genus is separated and discerned from species, and the predication of genus from the predication of species.

From the property, however, genus differs, or from the predication of the property the predication of genus differs in this, that the property properly taken which belongs to all and only and always, is predicated of one only species (which it immediately follows). And by means of that common species, through which it passes to individuals, it is predicated of the individuals of that species, just as risible is predicated of man alone and of the individuals of man, as Socrates and Plato. Genus, however, not as a consequent, but as prior by nature is predicated of many species and the individuals of those species: because that which essentially is in a subject, gives its name and reason to inferiors. For the property (as will be said in the following) follows the species and is an accident of the species through the common of the species: because that which is essential, gives its name and its reason to inferiors and nature: and the property is also drawn by means of nature to particulars, and is predicated of them

as a property, just as of the species. And yet genus does not have such a mode of predicating according to itself through this, that it is in inferiors and is predicated of inferiors. So therefore through the same mode accepted in different ways (which is to be predicated of many differing in species) genus differs from species, and from the property which is an accident of the species.

From the difference indeed it differs and from common accidents in that genus is predicated in the "what" (*in quid*): but the difference and common accidents are predicated in the "what sort" (*in quale*). For although even the property be predicated in the "what sort". Since nevertheless genus differs in two things from the predication of the property, namely in that which is to be predicated of many differing in species, and also in being predicated in the "what" and not in the "what sort": it first differs from the property in this, that it is predicated of those differing in species, than in this, that it is predicated in the "what". And this is proved by this, that if genus be taken as common, thus it is a certain quality of the species: for to be common with respect to that which is subjected to it, is as a certain quality of it. And therefore Aristotle purposely divides the "what sort somewhat" (*quale quid*) against "this somewhat" (*hoc aliquid*). And as to this, in the mode of predicating it does not differ from the property. The more substantial and prior difference of genus to the property is therefore to be predicated of many differing in species, than to be predicated in the "what", as was said.

It is to be noticed, however, that when it is said, the difference is predicated in the "what sort", and common accidents in the "what sort": "what sort" is not taken in one way, except in voice, and not according to reason: for according to the perfective reason of what sort, then the what sort-

is the information and disposition of a quality according to which we are said to be of what sort: and in this way "what sort" is that which does not belong to a substance nor to the genus of any accident except of quality. In another way and posteriorly "what sort" is said, which is a consequent to the perfect "what": and in this way every accident is "what sort", which is an accident of the individual: and then "what sort" is divided against the perfect "what" in being and substance. In a third way "what sort" is said, which is a consequent to the essentials of the species and nature: and in this way the property is called "what sort". And this has less of the "what sort" than that which is a consequent to the being of the individual. In a fourth way "what sort" is said, which is determinative of power to the being of the species: and this is called "what sort", because it is a consequent to the "what" or the first subject which is the genus of a thing.

Nor is it called "what sort" because it be in a genus in the first way spoken, or because it be a consequent to the "what" of a species: but only therefore because it is a consequent to something of the genus as an act following a potency in the same thing in which there is something accord-

ing to potency and something according to act. And this as to its essence is a substance and effective of substance, although it have the mode of predicating in the "what sort", insofar as it is a consequent to the "what" of the genus: and in this way the difference is predicated in the "what sort". And it agrees with the accidental "what sort" insofar as both are consequent to the "what": although the "what" which the accident follows be of that which is "this somewhat" in the individual. But the "what" which the difference follows is an imperfect "what": therefore the consequent difference is perfective of that power according to substance: and as to its essence it is of the genus of substance. But because the common accident is a consequent to the perfect "what" in that which is "this somewhat" and after "this somewhat", there is nothing to add to that which is to be according to substance. Therefore that "what sort" remains in the nature of an accident, because since it be in something, it is not in it as a certain part: which cannot belong to the difference (which follows the imperfect "what"): for it cannot follow the "what" and the imperfect, except that which is a part of the being of that in which it is. So therefore and in so many ways is "what sort" said.

In another way also "what sort somewhat" (*quale quid*) is said according to which it is divided against "this somewhat" (*hoc aliquid*): and thus "what sort" is taken by an infinite term, through which it is asked of what sort, nor is the question taken or determined until one stands in

"this somewhat". For saying that Socrates is an animal, we ask of what sort of animal: and we say, man. And asking, of what sort of man, we say, that he is this man: and so that which has a common "what sort somewhat" is with respect to its inferior. And even genus is not indeed predicated in the "what sort" nor in the determined "what", but it is predicated in the indeterminate "what sort somewhat", and similarly the species, and in the determined "what" the first substance alone is predicated.

Similarly also that which is said to be predicated in the "what", is said in many ways. For that is said to be predicated in the "what" which is of the nature and mode of predicating in the "what": and this is only that which is of its nature a subject in which others are founded, just as in the first substance are founded both second substances and common accidents, and just as the species in which the property is founded, and just as the genus in which the differences are founded. That is also said in the "what" which has not the nature but the mode of it, just as the genera of accidents are predicated of the species and individuals subjected to them, as Aristotle says. If anyone with whiteness posited should say that it is a color, he says what it is, and signifies a quality. Moreover, that is said to be predicated in the "what", which says the total quiddity of the subject, just as a definition is predicated of the defined in the "what".

And from these which have been said, it is easily clear that from the difference and common ac-

cidents genus differs in the mode of predicating: because although the difference be predicated of many differing in species, as irrational which is predicated of an ass and a lion: and similarly a common accident although it may be predicated of things differing in species, as white of snow and a swan: yet a difference and a common accident are not predicated in a what, but in a what sort. But a genus through itself as a primary subject is predicated in a what and not in a what sort. For when we ask, what sort is a raven? we answer, that it is black, answering a common accident: for rational is a difference, but black is a common accident. But when we are asked what man is, we answer, that he is an animal: because animal is the proximate subject in the being of a man in which the constitutive difference is founded. But animal is the genus of man: therefore a genus is predicated in a what.

From all therefore which have been said, it is evident that that which is posited in the definition of a genus, namely to be predicated of many, divides a genus from these which are predicated of one only, which are of the number of those which are individuals. But this which is posited in the definition, differing in species, separates a genus from those predicables which are species and which are propers. Although also a proper is assigned as most general, as Aristotle says in the *Categories*, that a proper of substance according to its mutation is to be susceptible of contraries: nevertheless properly and immediately a proper is of a species, nor is it assigned to a genus

except through a species, and thus it transits to a genus: for this itself which is to be susceptible of contraries by its mutation, does not belong to a substance except through standing under: which most belongs to a primary substance not insofar as it is this or that, but insofar as it is a substance. What is posited in the definition, in that what it may be to be predicated, divides a genus from commonly accidents and differences, which as has been said, are not predicated in that what it may be, but in that what sort it may be.

Therefore it is evident from which the definition says all things which are of the being of a genus, and separates a genus from all other universals which divide with themselves this common which is a universal: the said description of a genus contains nothing superfluous, and nothing diminished. This therefore is, what we intend to say concerning a genus insofar as it is a predicable universal.

## CHAPTER V.

*Of the recapitulation of those things which have been said concerning the discourse of a genus.*

Therefore collecting capitularly those things which have been said concerning the definition of a genus, we say, that otherwise than in civil things a genus is again said, to which by an immediate and direct line not transversally a species is supposed. To these genera, which are in civil things, perhaps to some similitude it is said: for a genus of this sort is a certain principle of

those species which are directly under it. And this agrees with the second acceptation of a genus. A genus thus said seems also to contain the whole multitude of species and individuals in one nature of its own, and in the name which it bestows upon them. And thus it agrees with the acceptation of a genus, of which there is discourse among Philosophers. Whence also describing a genus thus said, they say and have assigned saying, that a genus is what is predicated of many and differing in species in that what it is, as an animal which is predicated of a man and of an ass in that what it is. For of those which are predicated, some indeed are predicated of one only, as individuals (although this predication is not proper) as Socrates, and Plato: and that it may be said generally in every genus of individuals, as this (masc.) and this (fem.) and this (neut.). But others of predicables are predicated of many just as genera, and species, and differences, and propers, and a common accident, or common accidents, which are not proper to anyone. Now for example a genus indeed is as an animal, a species however is as a man, a difference as ratio-

tional, property as risible, accident as white, black, and to sit, and the like.

From these therefore which are predicated of one only, genera differ through that which was posited in the induced definition: because the genera themselves assigned through the pre-induced definition are in that they are predicated of many.

From these species however which are predicated of many, genera differ: since the species is not predicated of many differing in species as the genus, but it is predicated of many differing in number only, not indeed according to which number is an accident, but according to which number is in the things numbered: on account of which Aristotle says, that whatever things differ by the division of matter differ in number: for man since it be a species, is predicated of Socrates, and of Plato, who do not differ in species from one another, but in number only and by the division of matter, because the matter of Socrates is not the matter of Plato. Animal however since it be a genus, is predicated of man, and of the ox, which differ in species from one another, and not in number only.

From the property indeed genus differs: since the property indeed is predicated of one only species, of which it is the property, by a mediated and consequent predication, and of these individuals which are in that one species, because through the species the property passes to the individuals, whose whole formal being is the species itself, just as risible is predicated of man alone and the particular men who are under man: genus however is not predicated of one only species, but of many and differing in species.

From the difference indeed genus differs and from others which are common accidents: because although both the difference and the common accident are predicated of many and differing in species, nevertheless they are not

predicated in that which it is (*in eo quod quid sit*), but in that which it is of what sort (*in eo quod quale sit*). The reason for which is: because to some asking us that of which as of a subject this difference and accident are predicated, we do not say those are predicated in that which it is, but rather in that which it is of what sort: and to someone asking and saying, of what sort is man? we say because rational. And to the asking of what sort is a crow? we say because it is black. Moreover, rational is a difference which is an essential quality of man: black however is a common accident both to the crow and to the Ethiopian. When however we are asked what man is, we respond that he is an animal. Animal however is the genus of man, and the first subject in being for man.

To be predicated therefore of many divides or separates genus from those which are predicated of one only, which are of the number of those which are individuals. By that however which is said to be predicated of those differing in species, genus is separated from those which are predicated as a species or as properties. In that however which it is said to be predicated in that which it is, genus is divided from common accidents and from the difference, which are predicated not in that which it is, but in that which it is of what sort.

Nothing therefore either superfluous or diminished does the description of genus said by the Philosophers contain. And therefore such a definition is called a term, determining the

defined perfectly (through all things which are of its being), and distinguishing and separating it from all others. These things therefore, as far as pertains to the logical intention, have been said concerning genus.

### CHAPTER I.

### *On the various intentions of species.*

As we are about to treat of species as the second universal, we are compelled to defer the treatise on difference and place it in the third position among the universals: because although constitutive difference is of the essence of species and its essential principle, nor can there be a species which is not constituted from genus and difference: yet because genus is defined through species, and species through genus, on account of the fact that genus has a dependency on species, and species on genus, since they are correlatives, and one cannot be known definitely and certainly without the other: therefore it is necessary to place the treatise on species immediately after the treatise on genus. Of which, however, Avicenna says there is another reason, which is this: because difference is not that in which genus is through essence, since difference is an act or simple form: but in species genus is present through essence. Furthermore, difference is not in genus except potentially: but species is in genus as in that which contains it: and therefore species is more immediately related to genus according to the notion of species, and difference according to the notion of difference: although in the con-

stitution of species, difference is before species, because species is not constituted from genus unless the power of genus is determined and restricted by difference. For this reason, then, one must deal with species immediately after the treatise on genus: and the intentions of species must be set forth, so that it may be known in what acceptance or significance species is intended among the Philosophers.

But just as we said of genus, that we do not care to place here except those intentions of genus which have some similarity to that significance of genus which exists among the Philosophers: so we do not care to place the intention of species which does not have similarity to the intention of species accepted among the Philosophers. And therefore we do not care for the primitive or derivative species which is considered among the grammarians: but we find species in nature, and in civil affairs, according to which there is a certain similarity to the intention of species which exists among the Philosophers. For Avicenna says that the genus of each thing is the first essential and unformed subject: which is called first, because in it is the first potentiality and the first inchoation toward the being of the thing according to its substance and quiddity: or rather it itself is the first potentiality and inchoation of the being of the thing of which it is the genus, and therefore it is the proximate and proper matter. But matter desires form, as the base desires the good or the beautiful, as Aristotle says at the end of the first book of the *Physics*.

The beautiful, therefore, and the good and the divine, by which the potential baseness of matter is determined, is the form determining it to species.

And therefore it is said that "species" is said of that which is the form and beauty of each thing, or elegance in the commensuration of the composition of the body and of the complexion and stature and color, through a similarity to-

natural form, which terminates the baseness of matter into the beautiful, good, and divine. There are, however, certain things (as determined in the first book of the *Ethics*) that accompany happiness in one who is happy. For he who is most base in species is not happy. And also in civil affairs, species, which is such formosity, is for this reason referred to those things which are most fitting for the happy in powers and honors, according to which we say that the species of Priam, the Trojan king (who was of most elegant form), was worthy of empire: because from the elegance of form, a disposition toward virtues and toward the perfect acts of happiness is demonstrated, as in a sign. Because, as Averroes says: every diversity which is in the body regarding the composition of the members is from the diversity of the powers which are in the soul: and in this way also species has a similarity to the philosophical intention of species: because thus dignity or undignity is attributed to those things which are constituted in species, just as man is said to be the most worthy of creatures, but the toad an animal to be despised. Species accepted in these ways, therefore, has

a similarity to the species or the intention of species (which is in philosophy): and from this similarity, as Avicenna says, the name was transferred to the Philosophers' intention of species.

But according to the intention which exists among the Philosophers, we say, describing species, that it is placed in a position of the order of nature and of participation under an assigned genus. And I say assigned genus, meaning the same as certain: because there cannot be a vague species under a genus inclined toward this and toward that genus: but a vague individual can be under a species inclined toward this or that supposit, but determined and distinct or discrete toward none. And the cause of this is: because the certain genus is conceived in the quiddity of the species itself: because of which it cannot be vague under the genus. But we call it a position of order: because just as genus, according to which it is genus, says "superior": so species, according to which it is species, says "inferior" according to the order of predication and consequence. But we call it a position of participation: because species necessarily participates in genus, and adds above it a difference, which narrows the power of the genus in the species itself: and therefore it is placed under the genus, and contained by it. And in this way among the Philosophers we are accustomed to say that man is a species of animal: since animal, by the position of order and participation, is the genus of man. And so it is in other things whose essences are perfect and absolute: for in this way we say that white or whiteness,

which is the color white, is a species of color: because by both positions, namely of the order of nature and of participation, whiteness is under color. In this way also we say that a triangle is a species of figure, since according to both the aforesaid, a triangle is under figure. Of other genera, however, we shall not provide an example, because they do not have an absolute being, but are defined in comparison to certain other things. Thus, therefore, species is that which is placed under an assigned genus.

But it was said in the preceding treatise that genus is that to which species is subjected: and thus both genus is defined through species, and species through genus: and it seems to be a circular definition, and the same thing better known and less known than the other, and the same thing better known and less known than itself, because it happens that the same thing is defined through itself. For when it is said, species is that which is placed under an assigned genus, species is defined through genus. And if in place of genus the definition of genus is put, as Aristotle says, then species is that which is placed under that to which species is subjected: and thus species is in the definition of species: and thus the same thing is defined through itself, which seems to be very inconvenient. The same thing also happens through that definition of genus by which-

it was said, genus is that which is predicated of those differing in species in that which they are: for if the definition is then put in place of genus, then species is that which is subjected to that

to which species is subjected, and which is predicated of those differing in species in that which they are: and thus again the same thing is defined through itself.

But to this we say that if above, in the prior treatise, *on Genus*, we remember species in assigning genus through a definition, saying that genus is, by definition, that which is predicated of several things differing in species in that which they are: and now also, defining species, we say that species is that which is under genus: it is necessary for the solution of this doubt to know that genus is truly relative: for genus is the genus of something, and species is the species of something: for genus is the genus of species, and species is the species of genus: and therefore of relatives which are simultaneously by nature, one is defined through the other, of which both have a dependency on the other: it is necessary in the accounts of both relatives to use the names and definitions of both. For it is not inconvenient that one of the relatives be placed in the definition of the other, and vice versa. This also happens even in the definition of itself, if in place of the name placed in the definition, the definition is placed: because the being of relatives is this very thing which is to be related to something, and which is related to another according to the being which it is: and since the definition says the being of a thing, a thing cannot be known definitely except through that to which it is related: and thus it is necessary that each be defined through the other.

For relatives are considered in three ways, namely in as much as they are simultaneously by nature, and in as much as they are mutually dependent, and in as much as they are those things which are relative through some relation which is causative in them. For in as much as they are simultaneously by nature, it is necessarily required that one nature or one form be in them, which is equally in each of them: and this form is the relation itself, which, taken as a middle way, is the same, but differing by terms in each of the relatives: and according to this, paternity and filiation are the same in the middle, but differ in the terms, like a motion and a way which is from Thebes as far as Athens, and from Athens to Thebes: but they differ in the terms, and in the father indeed there is paternity, while in the son there is filiation: and so it is between genus and species and vice versa.

If, however, it is considered according to the dependency of one on the other, it is not inconvenient for each to be better known and prior, and less known and posterior to the other. For in as much as genus depends through the intellect on species, it is said to be not its own genus, but the genus of the species: it is necessary that the intellect of genus be taken through species, and thus species is better known and prior to genus. In as much, however, as species is not its own or absolute, but the species of another, and is said to be the species of genus: genus will be prior and better known than species. But for the same thing to be prior and better known than the other,

and vice versa, is not inconvenient, not according to the same, but according to different respects: for having respect of genus to species, species is better known than genus. If, however, there is respect of species to genus, nothing prohibits genus from being better known than species, and thus each to be defined through the other.

If, however, that which is relative is considered according to the cause which induces the relation, nothing prohibits one of the relatives from being the cause of the other, and not vice versa: just as if the person who is a father is considered according to the act of generation, through which he is the cause of the son, nothing prohibits the father from being the cause, and the son from not being the cause of the father vice versa: because, as Aristotle says, the father is he who has something of himself in the son: but the son has nothing of himself in the father. And in this way genus, or that which is genus, is the principle of species, through that which genus is the principle of species, and through that which genus is in species as-

constitutive form and distinct. But species has nothing of its own in genus in that manner. And thus one is defined through the other, and not vice versa. And this is the distinction of Alfarabi and Avicenna.

It must be said, therefore, according to them, that a certain definition of relatives is like the middle of a demonstration, and a certain one like the conclusion. For that which is given concerning a relative according to which one is the cause

of the other and not vice versa, is like the middle of a demonstration, or like a demonstration differing in position. But that by which relatives are mutually defined through each other is like the conclusion: for because the father by generating is the cause of the son, from this it is concluded that the father is the father of the son, and is defined through the son: and because the son has been generated by the father, it is for that reason that the son is not his own, but the son of the father, and is not known definitely except through the father: and thus it is between genus and species, because from the fact that genus is the principle of species, it is concluded that genus is not its own, but the genus of species: and from the fact that species is principled from genus in this mode of principiation by which genus, by the mediation of a determining and distinguishing difference, constitutes species, it is concluded that species is not its own, but the species of genus: and thus it is not known definitely except through genus. In this way, therefore, those things which seem to be inconvenient have nothing of inconvenience: for they are first simultaneously by nature. In the second way one is prior to the other. In the third way, however, each is prior to the other, and vice versa in different respects.

Many, however, and especially the Peripatetics whom we here imitate, also assign it thus, defining species, saying that species is that which is placed under genus, and of which genus is predicated in that which it is. And it is clear that

in this assignment two things are of the essence of species. One indeed according to which species is principled and constituted from genus: for thus, through the determination of constitutive difference, species is placed under genus both in order and in participation. The other, however, is according to the order of species to genus, constituting the species itself. For thus genus is that which is predicated of species in this way, that it is answered to the question "what it is" (*quid sit*), and not to the question made through "of what sort" (*quale*). The reason for which has already been said before: because genus, in everything in which it is through participation, is "what" (*quid*), and not "of what sort" (*quale*): for it is the first subject determined by essential differences and distinct for the being of the species. But the subject which underlies in the being of a thing cannot be "of what sort," but "what": on account of which also that common thing thus determined and distinct is not called "of what sort somewhat" (*quale quid*), although it is not "this somewhat" (*hoc aliquid*). Therefore the cause is that there are two things in the assignment or definition of it. For it is considered in two ways, namely according to its constitution from genus, and according to the order to the constituting genus which is a being by reason of it: and because through the constitution it receives the order, therefore it was necessary to put in the assignment "that which is placed under genus": because from this it is

caused that genus is predicated of it in that which it is.

If, however, anyone should object against this assignment that an individual is also placed under animal, of which genus is predicated in that which it is: and thus an individual seems to be a species thus defined. It can be said that an individual is not placed under genus by immediate position. But species is placed under genus by immediate position.

But then some object concerning the individual of a genus: for this is placed under genus immediately, as for example "this animal" under animal: for "this animal" is not by the mediation of a species, although perhaps "this animal" is this man or that one. And thus it seems that "this animal" is a species: which is false. To this, however, some say that there is a position of order, and there is a position of participation. And as for the position of participation, the individual of a genus is placed immediately under the genus: because the individual of a genus does not participate in the nature by the mediation of a species, but the genus is participated in by it through itself. And according to the position of the coordination of predicables and knowables they say,

that nothing is posited immediately under a genus except a species, and an individual through a species which is ordered after a species.

But this solution is not perfect: because participation is the cause of order. For in all participating and participated things, the participated is superior in the order of predicables, and the

participating is inferior and a subject: and therefore if it is immediate in participation, it will also be immediate in order.

Because of which it is proper to be said otherwise, that there is a position which is wholly principled from a genus according to that which is in its potency: and thus a species is posited under a genus, so that a genus is the principle of its position. And there is a position which is not caused by a genus, but rather from matter: and this is the position of an individual, and therefore this is not thus posited under a genus, that a genus may be the principle of that position. Whence when it is said, what is posited *under a genus*, that preposition *under* not only notes an order, but also the cause of the position or its principle.

But otherwise Avicenna impugns this definition: for a point is a certain species: and yet it is not posited under a genus, nor is a genus predicated of it just as quantity, nor is it predicated of a point in that what it may be. But this instance is nothing: because a point is not in a genus as a species of quantity, but rather as a term of continuation. Whence what is said, that a point is a certain species, is false: because if it were a species, it would be a quantity, which is false. But this mode of a species is translated from natural and political things: because in Physics a species is said from the potency of matter to a determined being, as a man and an ass. And in politics a species is said through an elegance of

form and stature and figure, suitable for dignity or indignity, just as was said in those had before.

But furthermore they also thus assign a species in philosophy. A species is, what is predicated of many differing in number in that what it is. And thus it is evident that this assignation concerning a species is according as a species is a predicate: but the anterior given concerning it is insofar as it is a subject. Nor is it inconvenient that there be many assignations of the same thing according to diverse or diverse modes or reasons which are in it: although nevertheless there may be only one definition of it given according to its quiddity and substance, just as being and substance and quiddity are one. But Avicenna says that when it is said, that it is predicated of many differing in number, it is to be understood with precision, so that it be added differing in number only: and then what is objected concerning a genus does not hold, because a genus is predicated of many differing in number: for a genus is not predicated of many differing in number only, but also of those differing in species.

This indeed is the solution of Avicenna. But nevertheless it could (as it seems) better be said, that that which is predicated, is predicated as a participated thing, and what is participated by some other thing previously participated, is predicated through another and not through itself. Whence since nothing participates immediately by the participation of an individual except a species, nothing is predicated immediately of

those differing in number except a species. For a difference in number is not through a divisive difference, but through matter, as Aristotle says. But such a division is not proper to a genus, but to a most special species: and therefore it is not properly predicated of those differing in number only by an immediate division: for a genus is not divided and multiplied through matter, but through differences dividing the genus itself according to its form.

It is evident therefore, that this ultimate assignation of a species only belongs to a most special species, which is not predicated except of those differing in number only. But other assignations posited in those had before are not of a most special species, but also of species not most special. These therefore are the assignations given concerning the intentions of a species.

<!-- cap:1.4.2 --> ### CHAPTER II — *On two questions concerning the foregoing.*

Alfarabi and Avicenna here introduce two questions. One indeed: since there are two assignations, one of the subalternate species, the other of the most special species, [the question is] to which of these the name "species" was first transferred, from that likeness whereby species is said to be the form and beauty of each thing. The other question is: since there are two definitions of species, as has been said, according to which of these the species is that one universal among the five universals which were enumerated in what has gone before.

And concerning the solution of the first question Avicenna finds doubts, and confesses that he does not know to which the name "species" was first transferred to signify it. For the subalternate species, which is placed under the assigned genus, and of which the genus is predicated in respect of what it is, occurs first to those who descend, and to those coming from the one which is the principle of the species into multitude: for then the subalternate species is that to which the potency of the genus is first formed and distinguished. And thus it seems that the name "species" was first transferred to that one. Moreover, that which first occurs to the intellect is the genus, and thus through division one arrives at the species. But it is evident that that which is both genus and species occurs before that which is species only. It seems, therefore, that the name "species" was first transferred to that one.

But against this is the fact that the formation of the potency of the genus according to perfect substantial determinations occurs only in the most special species: for that which is formed in a subalternate species is still in potency to another form: therefore it does not have the full beauty proper to its nature. But that to which the name is transferred less is of full beauty, so that according to it we attribute to the thing its dignity,

in keeping with the aforesaid determinate felicity. It seems, therefore, that this name is first transferred to the most special species, which has the perfect formation of its genus and of its potency. Avicenna says that he is in doubt between

these reasons as to which should be held the stronger: for he says that either can reasonably be maintained according to the reasons adduced.

But without prejudice it can be said that, since transferences ought to be made according to likeness, the name "species" is more properly and prior transferred to the most special species than to the subalternate species. For the subalternate species has something of genus, and something of potency, and something of privation: nor is it wholly brought to the dignity of species as the most special species is. And as for what is said, that to those descending the subalternate species occurs first: this contributes nothing to the transference of the name: for the transference does not happen by reason of division, nor even by reason of resolution or of composition, but by reason of likeness alone. But by reason of likeness it is plain that the name is transferred first to the most special species, and afterward to the subalternate species.

Concerning the second question, however, Avicenna seems to be in doubt, namely as to which of those definitions the species has that by which it is universal, although the reason for doubting seems very slight. For according to the first definition of the subalternate species, the species is a subject and not a predicate. But the universal, insofar as it is universal, both exists and is defined under the nature of a predicate and not of a subject. It seems, therefore, that the species, by that reason by which it is a subject,

does not have that it is universal: and this is conceded by almost all the ancients.

Which, however, seems to some not to be true: because we know that Aristotle, in the Topics, teaches how to determine concerning every problem, but does not teach how to form or determine a problem concerning species: because in

every problem the species is subjected, and thus it seems that what is species has to be subjected in a problem and not predicated.

Furthermore, species according to which it is most specific (*specialissima*) is not predicated except of those differing by number alone. But those which differ by number alone are singular sensibles, and of them there can be no discipline. Neither subjects, therefore, nor predicates do they seem to be in discipline. A sign of which is that the science of the predicables does not descend as far as those, unless they are taken as standing in nature and common species, as "some man" and "some ox." And thus it seems that species is not predicated of the individual through itself, but by accident: for it happens to the species to be in the individual, and thus it happens to it to be predicated.

But to these and similar things it seems that every universal has to be determined in the reason of a predicate: for a universal according to which it is a universal is defined as that which is in many and of many. But it is not of many, except because it is predicated of them. And therefore species has that it is a universal through that def-

inition by which it is defined as a predicate, and not that by which it is defined as a subject. But as to what is said, that species is a subject in problems, it must be said that this is true: because problems are not formed except of those things which are in the species either simply as an accident, or as an assigned genus of the species, or as a property which flows from the nature of the species, or as a definition which says the whole being of the species. And in this consideration, species is not a universal. But it is a universal according to which it is a predicate.

And as to what is said, that the most specific species is not predicated except of those which differ by number alone, in which it happens to the species to be, it must be said that it does not so happen to the species to be in individuals that it is an accident to them, or an accident in them: because, as Boethius says, species is the whole being of individuals, or the essential similarity of individuals. And therefore individuals can be taken in two ways, namely either as-

particulars in determined matter, or as things of common nature in which it stands: or in which the flux of nature stands, which flux is the diffusion of nature, and thus the individual is so taken, as "some man": and this individual is properly and through itself a subject, and is the subject of the species : and in this way the first predicated of it is the species, and according to which it is apt by nature to be in several according to the whole substantial being, so it is a universal. And thus it is defined, when it is said that species is that

which is predicated of several differing in number in that which they are. But through the fact that another is predicated of the species to which it is subjected, it happens to the species that it is a universal: for of that which another is predicated, it can be a universal, and it can be not a universal.

Thus, therefore, it has been said of the intentions of species and the assignments or definitions which have been given of those intentions. This, however, can be collected in summary, so that it may be said that according to common use or custom in physics or politics, "species" is said of that which is the form or formosity of each thing, according to which intention of species it is commonly said that the species or speciosity of Priam is worthy of empire. But there is said, by some similarity to this, "species" among the Philosophers as that which is placed under an assigned or certain and determined genus through a constitutive difference, which determines the power of the genus and narrows it to the act to which it was previously in potentiality: according to which intention of species we are accustomed to say in philosophy that man is indeed a species of animal, since animal is the assigned genus of man : white or whiteness we are accustomed to say is a species of color, since the assigned genus of whiteness is color. And according to which we are accustomed to say that a triangle is a species of figure, since figure is the assigned genus.

But if also above in the preceding treatise, which was held concerning genus, assigning

genus through a definition, we made mention of species-

ntioned putting species in the definition of genus, when we say that genus is that which is predicated of things differing in species in that which they are: and now treating of species we say that species is that which is placed *under genus*: and thus we put genus in the definition of species: let no one repute this as inconvenient. For in such things it is necessary to know that since genus is not absolute, but relative: therefore the genus of something is a genus, and species is not an absolute something, but the species of something is a species, because it is of a genus. And therefore it is necessary in the definitive accounts of both, namely of genus and species, to use both: so that genus is put in the definition of species, and species in the definition of genus. The Philosophers therefore assign through a definition the aforesaid intentions concerning species, also defining species thus: Species is that which is placed under genus, and of which genus is predicated in that which it is: for it is predicated as substance and subject in the species, which by the constitutive difference is individuated and formed in the species, which is the "what" of the species and not "of what sort."

Furthermore, the Philosophers themselves also assign defining species thus: Species is that which is predicated of several differing in number in that which they are: and thus it is the formal "what" of individuals, and their whole being. For the being which is after the species in individuals

is also of the individuating [principles], and it is not the same being simply, because matter gives being to none, nor is it properly of being: but it is the act of the essence in that which is matter. And therefore it is not for matter to be predicated: because in the preceding things we have already said that nothing is predicated except form: nor is form even predicated according to which it is form, but the form of the whole: nor yet is the form of the whole predicated as the form of the whole, but in as much as it is the notion of the whole being either in potentiality or in act.

Between this assignment, however, and the aforesaid, there is a difference: because this second assignment is only of the most specific species: the other two preceding ones, indeed, agree also with species that are not the most specific. What, however, has been said here cannot be known unless the whole ordination of the predicables into the most general and most specific and intermediate is set forth: and to this we shall next attain.

### CHAPTER III.

*How the most specific species is found, and concerning the predicamental coordination.*

### CHAPTER III — *How the most specific species is found, and concerning the predicamental coordination.*

By what art most specific species are found according to the various intentions of which it has been said, will be plain and manifest in this way. For in every predicament, according to all

the genera of the predicaments, there are certain things in the supreme according to the whole coordination of the predicables of that genus, which are called most general (*generalissima*): not because there are many in one, because this is impossible, and that which is said through superabundance in one order of things can agree with only one alone, but because in every genus there is one, and in the same order of predicables there are certain things lowest according to their communities and universalities, which are called most specific (*specialissima*), and in each there are several, because although it is necessary for the most specific in one and the same genus of predicables to stand in one, where they are resolved into one, nevertheless on account of this it is not necessary according to the way of division and composition (which begins from one) that the division stand in one as in the lowest: because division proceeds from one by many ways: and those ways are not except through various and opposite forms, which are called differences, which to be united into one is impossible, and therefore division from one stands in many ultimates: and each of those is indivisible according to form, not having a common thing under itself, and therefore each of those is most specific.

In such an order of predicables, the supreme is therefore called most general, because it does not have above itself a higher genus-

...is that which is placed under an assigned genus: but the same 'body' is the genus of the animate or living body, since a genus is that to which

a species is subjected, and in which the genus is according to a part of its natural power. And in exactly the same way, that which stands third in order according to the descent from substance (which is the animate or living body) is indeed a species of 'body', to which it is subjected as to a genus: but it is the genus of 'animal', because 'animal' is subjected to it as to an assigned genus.

Animal, moreover, according to the Stoics, is indeed a species of the animate or living body: but it is the genus of the rational animal, because we do not have a single name to signify that common thing which contains man and the Gods: since according to the Stoics incorporeal substances are animals, as Apuleius says in the book *De Deo Socratis*. Man, however, is indeed a species of rational animal, because he is subjected to it as to an assigned genus: but he is not the genus of anything, because he is not present in any common thing (which might be after him) according to a part of his natural power, but in each thing according to his whole being, and according to the whole being of his power. It is clear, therefore, that he is a species of rational animal, and is not a genus of particular men.

Thus it is clear, therefore, that all these have a threefold mode and rationale of their position: one indeed supreme which cannot be a species, another lowest among the common things, indivisible according to the power of its nature, and the intermediates which with respect to the superiors are species, and with respect to the inferiors are genera.

Let us therefore compare the extremes to one another, and say that, just as substance is supreme, since there is nothing above it which could be a genus to it, and therefore it is the most general genus: so man, which is the lowest in this disposition of order, is the most specific species, after which there is no other inferior species to which he could be a genus: since after man there is none of those common things which could be divided by opposed differences, or in which he might be according to a part of his natural power, but only individuals, which individuals are after man: for the individuals are Socrates and Plato: which are indivisible, not indeed according to matter and quantity, but they are indivisible according to the form of their commonality and according to power: because 'man' remains in each of them according to his whole being, and according to the whole power of his nature. And therefore he will be a species alone which cannot be a genus, and he will be the ultimate species, in which such formal division according to power stops, and he will be, as was said, the most specific species.

But those which are in the middle of these extremes are related to both extremes. For of those which are above them in the order according to ascent, they are species and subjects according to that rationale of a species by which a species is called that which is truly placed under an assigned genus, and of which a genus is predicated in respect of what it is. And of those which are after them in the order of their actual position

according to descent, they will be genera according to that definition of a genus by which it is said that a genus is that to which a species is subjected. It is concluded from these things, therefore, that those which are intermediates have two relations of habits. For they have a relation to the prior things according to ascent, according to which relation they are said to be species of the prior things. They also have a relation to the posterior things according to descent, according to which relation they are said to be genera of the posterior things. For in the first relation, their superiors are in them according to being and essence, and are of their rational account, just as genera are of the rational account of species. But in the second relation they themselves according to their essence and according to their being are in the posterior things, and are of their rational account, just as genera are of the rational account of species. And this is the reason why in the prior relation they are species, and in the second relation they are genera.

It should be noted, however, that these me-

media of another account are they than the media which are called so through the participation of extremes, as there are media in colors, and savors, and odors: for those (because they are media by the participation of both extremes) are caused and originated by the extremes. And therefore according to the nature of posterior things they belong to both extremes. But these, because they are not media by participation, but of order and position between extremes, because

any medium whatever is in the whole medium universally, therefore the superior is indeed the cause and principle of the medium, and the medium is the principle and cause of the posterior. And therefore the medium by nature is posterior to the superior, and prior to the inferior. And the medium participates in the whole superior, and is participated in as a whole by the inferior, and it does not participate in both extremes. Nor does it participate in one of the extremes in that mode of participation by which middle colors or middle savors participate in the extreme colors or savors. For sensible media do not participate in their extremes according to their whole essences and according to their whole being, but rather participate in one or the other according to a certain mixture and intention and remission. But according to the whole essence and according to the whole being they participate in one of their extremes, and according to the whole being they are participated in by the other, but according to the whole power they do not participate in that which they participate in, nor according to the whole power are they participated in by that by which they are participated in. In such a way, therefore, are they called media, and thus as media in position and order in the said manner they have two relations.

But the extremes which are simply extremes, such that they cannot be media (which are only two, namely, the most general and the most specific) have only one relation. For the most general (since it has no genus above itself) cannot have

that relation which is towards superiors, except according to negation, namely, as that which does not have a higher genus. But that relation thus stated through negation posits nothing in the most general genus: for through this it is neither genus nor species: but rather through that relation which it has towards inferiors, it has the account of a genus, because a genus is that to which a species is subordinated. But through the negation of the relation towards superiors, it does not indeed have the account of genus nor of species, but an excess in generality. And through the negation of specificity, namely, that it is so a genus that it cannot be a species, that is, because there is an overabundance, and at the limit it signifies generality: it cannot be made known except by negation, because it has nothing that can be affirmed of itself: and this is on account of its account of simplicity or perfection: and therefore through such negation nothing of imperfection can be concluded about it. Furthermore, it is thus notified and determined through negation (although negation according to itself is infinite and indeterminate) because the negation by which it is determined is finished: when it is said that out of an abundance of simplicity and generality and superiority it is not posited to have a superior.

But if anyone should insist and say that substance has a superior. For Being is before substance according to the intellect: because every substance is a being, but not every being is a substance. And it cannot be said that it is predicated of substance accidentally. And similarly

it can be said of anything that transcends the genera, such as 'thing', 'one', and 'something'. Below indeed we shall subtly satisfy this objection: but here for the present let it suffice that when being is predicated of substance, or thing, or one, or something: it is not predicated by the predication of a genus, since it is not predicated by one account of those things of which it is predicated, but according to prior and posterior: but such things are predicated by the predication of a principle, not of a genus. And this Avicenna and Alfarabi and Algazel and all the Arabs prove-

thus. For it follows, if man is, animal is; and if animal is, an animated body or living thing is; and if a living thing is, body is; and if body is, substance is, on account of the understanding of the genus in the species. But it does not follow, if substance is, being is: because whether it be something or not, the genus always follows upon the position of the species: because according to reason and nature the genus is conceived in the species: and the species cannot be understood unless the genus is understood in it. But when 'being' is said absolutely, nothing is understood except being actually existing: and therefore it does not follow if substance is, being is, because to be a being happens to everything that is: for it happens to everything that can be in act. It is clear therefore that when it is said, 'substance is being', the being which is predicated is the same as substance, because simply being is nothing but substance.

And if it be said by objecting against this, that according to this the consequence ought to be converted: it must be said that the cause of the fact that the consequence is not converted is not that being is the genus of substance, or a community of genus which is in being towards substance: but the cause of it is that it is common according to that which is said as prior and posterior, and in this community it exceeds substance: and therefore the consequence is not converted from being to substance. And when it is predicated of substance, it is not predicated essentially or accidentally: but it is predicated as the same with substance, because being simply is the same with substance. It remains, therefore, that the supreme which is most general has only one relation according to which it is a genus and is called most general: for it is the supreme and first principle (of all things that are in that coordination): since from it essentially all inferior things are originated.

On the contrary, however, the most specific indeed has only one relation which is towards superiors, according to which also it is called a species: for it is a species of superiors, because it is under superiors: and from that it has the name and account of species. But that relation (according to which it would be in some inferiors as a substantial predicate, which would be participated in by them according to a part of its power) it does not have: and according to this negation of relation towards inferiors it is constituted in the abundance and limit of specificity. And therefore

it is called most specific by excess: for although it has inferiors which are individuals, it does not however relate as a genus to them: for it is in any of them according to the whole being, and according to the whole of its power's being: which does not belong to a genus when it is in its inferiors. And therefore according to the relation which it has towards superiors, it is a species. But it is a species towards superiors, as contained by superiors, according to that which is a species, which is placed under an assigned genus. But it is a species of inferior individuals as containing individuals: and it contains them in this, that it unites them in the form of the species, which is the whole being of individuals according to every perfection of its power. Thus therefore in the most specific there are three understandings communicating with each other: for from the fact that it is subordinated to superiors as a species, it has the understanding of species. But from the fact that it does not have the relation of a genus towards the inferior, it receives the understanding of the most specific. But from the fact that it is perfectly contained in one individual, it receives that which is a predicate in 'what' of those differing only in number, and is to them the whole 'what', and the whole formal being: but their formal being is substantial. By this art, therefore, are to be taken the most general, and the most specific, and the intermediate also in other predicaments.

### CHAPTER IV. How those things which have been said may be reduced to a compendium.

Capitularly, however, these things have been handed down by the ancients saying here that what has been said is plain in this way: that in each predicament there are certain most general things-

certain things, so that there are not many in one, but one in each. And again in each one there are certain other most specific things. And between the most general and the most specific there are certain other intermediate things. But the most general is indeed that above which, according to the order of superposition or supervening, there is no genus. But the most specific is that after which there will be no inferior species which is subordinated to it as to a genus, and in which it is according to a part of its power. But between the most general and the most specific, according to the order of position, all things that are, are both genera and species, compared to one thing or to another.

Thus moreover what has been said is manifest through the positioning of examples in the one predicament of substance: for substance is a more perfect genus, and in it the examples are better known: for substance is a 'what', and it itself is a genus, because it does not have that to which it is subordinated as to a genus so that it might become a species: and therefore it is only a genus, and not a species. But under this substance is body, or corporeal substance. But under body, as under a genus, is animated body, under which, as under a genus, is animal. But under animal, as under a genus, is rational animal

according to the Stoics: although Avicenna and the Arabs say that rational animal is as a genus towards man and towards the Angels: which is false, because an Angel is in no way properly an animal, but is sometimes called an animal on account of living according to the intellect. And if 'rational' is said of an Angel, that 'rational' which is the difference of man will be said equivocally: but it was said on account of the Stoics and Epicureans, who used to say that the terrestrial gods, such as Ceres and Aesculapius, and the infernal gods, such as Pluto and Vulcan, were rational animals. But under rational animal, as under a genus, is man: but under man, not as under a genus, but as under a species, are Socrates and Plato, who are particular men.

But of all these, substance indeed is the most general: because it is only a genus, and cannot be a species. But man is the most specific: because it is only a species, and cannot be a genus. But body is indeed a species of substance, to which it is subordinated as to a genus: but it is the genus of animated body, which is subordinated to it as to a genus. And animated body is indeed a species of body, to which it is subordinated as to a genus: but it is the genus of animal through the same account which has been said. And animal according to the same account is a species of animated body: but the genus of rational animal. But rational animal in the same order is indeed a species of animal: but the genus of man. But man is a species of rational animal: but it is not a genus of particular men, but only a species. But

that which is closest to individuals, such as lion, and ass, and horse, will be only a species and not a genus.

In just the same way therefore that substance which is supreme (because there is no genus above it) is the most general: so also man (since it is a species after which there is no other inferior species, nor anything of those things which can be formally divided by opposite differences, but only individuals are after it, for individuals as we have said are Socrates and Plato) will be the only last species in which formal division stops: but it will be, as has been said, the most specific species. But those things which are in the middle of the extremes, of those which are above them indeed, they will be species: but of those which are after them, they will be genera.

Wherefore these middle things indeed have two relations: namely, that which is towards superiors, according to which they are said to be their species: and that which is towards posteriors, according to which they are said to be their genera. And thus by the way of nature the extremes at the highest and lowest have only one relation. For the most general alone has only one relation towards those things which are posterior to it, since according to that relation that which is supreme is the genus of all posterior things. But that relation which is towards superiors it does not-

has, since it is the supreme and first principle, from which through division all other things are originated: and because through name and

reason it is substance, that is, according to that which is in all inferiors. The most special similarly has only one habit, namely that which is towards the superiors of which it is a species: because it is subordinated to all of them as to genera. But that which is towards inferiors as to common things, it does not have: because it is not superimposed on common things. But it is called the species of individuals, of which it is predicated as undivided according to substance and power. Therefore it is called a species of individuals in one way, and of superiors in another. For it is called a species of inferiors indeed in that it is their formal being containing it. But it is called a species of superiors, as that which is contained by them (in that they are divided through differences and power).

And in this manner a figure in the manner of a tree is accustomed to be drawn,
**[Diagram: Arbor Porphyriana]**

* **Substance** (Most General)
  * *corporeal* / *incorporeal*
  * **Body**
    * *animated* / *inanimated*
    * **Animated Body**
      * *sensible* / *insensible*
      * **Animal**
        * *rational* / *irrational*
        * **Rational Animal**
          * *mortal* / *immortal*
          * **Man** (Most Special)
            * *Socrates* / *Plato* (Individuals)

which if considered according to being and essence, has the roots by which it is originated, above. But if it is considered according to actual being, it has the roots, which are in individuals, below.

### CHAPTER V.

#### *On the manifestation of those things which have been said from consequents and similars.*

**[Drop Cap] T**hese things however which have been said, we will further manifest through those things which follow upon them and similars. Resuming therefore those things which have been said, we say, that from what has been said it is clear, that the Philosophers determine the most general through this, that since it is a genus, it is not a species: for this follows upon this, that it is the supreme to which all are subordinated: for through this that all are subordinated to it, and it is predicated of them in quid, it follows that it is not subaltern but most general, which certainly cannot be a species of anything. It also follows from what was previously held, that it does not have a genus supervening to it: because if this could be, it would already be subaltern, and it would be a species of that genus which would supervene to it in the order of position, and it would be a middle, not an extreme. From which it further follows, that it would not be simple but composite, and would be participating in another and participated by another, and many other things which are inconvenient. For

if it were subaltern, it would be subaltern in this way, because it would be placed under another. It would follow therefore, that it would not be the supreme and first principle, which is contradictory to that which was proved about it before.

But the most special the same Philosophers determine, that since it is a species, it is not and cannot be a genus: for it is a species according to both its habits: for according to the habit which it has towards superiors, it is a species and not a genus, because it itself is what is subordinated to the genus, and of which the genus is predicated in that which is 'what'. But according to the habit-

relation which it has towards individuals, it is not divided by differences, so as to be in inferiors according to a part of its power, but it is in any of them according to its whole essence, and according to its whole power: which does not belong to a genus, but to a species, not insofar as it is a species, but insofar as it is the most specific species, which has nothing under it except the individual, which is numerable only through matter and not through form, in that the form diffuses the whole being and power in matter. This most specific thing, therefore, since it is a species, is never divided nor can be divided into species: because division into species belongs only to a genus through formally opposite differences: therefore it is not divided except through matter. And because, as Aristotle says, division is the cause of number, and division of matter is the cause of material number: it follows that it is predicated of many differing only in the number

of matter in that which is 'what': because it itself is the 'what' and quiddity of individuals and their whole being.

But all those things which are according to the order of position in the middle of these extremes, participating and participated in through substance, and through that which they are, are indeed called subaltern, and at once, though not according to the same thing, they are genera and species: and therefore each one of such things can be at once genus and species: all such things can therefore be genera and species, taken towards one thing and towards another according to the relation of comparison. And thus all things which are arranged according to order from the most specific up to the most general, according to the ascent from the inferior to the superior, or from the composite to the simple, or from the posterior to the prior, are according to nature called both genera and species, and are called subaltern genera and subaltern species. But a subaltern genus is not called so because it has a genus under itself: because thus the most general would be subaltern, for it has another genus under itself: but it is called so because it is placed as a subordinated genus.

And similarly the most specific species is not called non-subaltern because it is not subordinated to a genus, for it is subordinated to a genus: but it is called non-subaltern because no common species is subordinated to it; for this is what the name 'subaltern' sounds like, namely, that in an alternated order it is subordinated to

the participated thing and is subordinated to the participant: and that which has only one of these is not subaltern. For the most general is superposed upon everything participating in it, but in an alternated order it participates in nothing. But the most specific is subordinated to everything participated in, but is participated in by no common thing. And therefore these two do not have an alternated order, and therefore they are not subaltern.

Note moreover that when 'subaltern genus' is said, there seems to be an opposition in the adjunct: because genus as genus means to be superposed in the order of predicables, and means that which is the principle and definitive of that which is subordinated to it. But 'subaltern', since it says that which is alternated in the order, in some way says that which is subordinated, and which is originated and defined. But this is easily solved if it is considered how it is called a subaltern genus: for it has its being a genus from the account of the prior and the principle, and of superposition: but it has its being subaltern from an alternated subordination in superposition. And because thus generality and subalternation refer to different things, it follows that one does not deprive or diminish the account of the other.

Furthermore, when a genus is divided by these differences, subaltern and non-subaltern, for certain the division is of a subject into an accident. For it happens to that nature which is a genus that it be in the order of predicables standing in one position, or that it be alternated according

to the order of diverse positions. The same thing moreover is to be understood concerning subaltern and non-subaltern species: for this happens to that nature which is a species: for these names 'subaltern' and 'non-subaltern' signify the accounts of the accidents of position in such an order of predicables-

of position in such an order of predicables signify within the nature of predicables of this kind. And therefore when it is said that of predicables some are subaltern according to predication, and some are not subaltern, it is a division of a subject into accidents according to the truth of the matter.

But this is true, that if the cause of this division and position is considered, then a certain other division is pre-understood, which is that the nature of such predicables is in one case simple, in another composite: and a certain composite nature is numerable and divisible through differences, because it is composed of genus and difference; but another is numerable by number alone, because it cannot be divided through ultimate differences: and this division is of genus into species, because a nature numerable through differences is a composite genus: but one numerable through matter and not through differences is the most specific species.

Nor is it in any way to be said that 'subaltern' is called either genus or species because it cannot be subalternated so as to be below and above: as some say that a subaltern genus is called so because it is only under another, and species is

called so because it is above another; for this is not the account of 'subaltern': for 'alternated' is that which is alternately subordinated and superposed, as has been said. For if 'subaltern' were said in a genus to which a genus is superposed, and 'subaltern' in a species to which a species is subordinated, as some have said, it would be subaltern of one account and of another, which is false. Whence 'subaltern' is said at once of both, according to which it is alternately placed below and above, and it can be genus and species. And therefore the most general cannot be subaltern: because it cannot alternate itself so as to become below and a subject like a species. And the most specific cannot be subaltern, because it cannot subalternate itself so as to become subject and predicate with respect to some common thing.

But of subalterns and of the most general and most specific which are not subalternated, there is an example and likeness in families, from which, as was said in the treatise on genus, the logical genus was first transposed. For if the family of Jove, that is, that which descends from Jove, be distinguished through houses or families, we shall say that Agamemnon, or the house and family of Agamemnon, which is the last and inferior, is reduced to Atrides from whom it descends, and from Atrides it drew its genus and origin: and thus Atrides gives genus to Agamemnon, but Atrides drew his genus from Pelops, and Pelops drew his genus from Tantalus, and Tantalus from Jove: since God is sublime and first in the order: wherefore holding the place

of the most general, because he is not subjected to another. But Jupiter was called the sublime god by all the ancients: all the intermediates, therefore, are both fathers and sons. But in the extremes, Agamemnon is a son only, receiving and not pouring forth the genus: Jupiter however giving and not receiving from anyone in that order. Because even if Jupiter be said to be the son of Saturn: yet because he expelled his father from the kingdom, in royal dignity and family of the kingdom and grade of honor he had no prior: and therefore the royal family stays in Jupiter at the supreme, but in Agamemnon at the lowest. But the intermediates are alternately: both receiving and giving the family belonging to the kingdom. And this is just as in genera placed subalternately and non-subalternately, as is manifest from what has been said before.

But in this there is a dissimilarity: because in families indeed all descending things are mostly reduced to one principle. But I say 'mostly' in every family that descends from one, there is a reduction to one principle: but when there is not a descent from one, then they cannot be reduced to one: as if we say that in different quarters of the world the principles of man were divided. For only one quarter of the earth is known to us, as Ptolemy proves in the Almagest, and in this habitable [quarter] of ours all families are reduced to Adam. In other quarters, however, if habitable-

they had other and other principles. But in logical genera and species it is not thus: because all things which are in all genera and species

as much of substance as of accidents cannot be reduced to some one thing (which would be according to one reason the principle of all), in that being (to which all are in some way reduced) is not the common genus of all as much of genera of substance as of genera of accidents. For not all both substances and accidents are of the same genus: for thus it would happen, that all would either be substance, or all would be accidents, in that the first genus is indeed of all others: and one genus is not the principle except of that which is indeed of one and the same reason. Then therefore all predicaments as much of substance as accidents would be of one genus, if one genus is taken in that reason of a genus: just as Aristotle says in the *Categories*, because namely by name and reason of substance in 'what' thus it is predicated of those which are in a species, as in a genus.

Beings therefore according to their diversity are placed in diverse genera, as has been said by Aristotle in the *Categories*. For there are ten genera as if the first ten principles, of which one cannot be reduced to another. And if Aristotle[1] teaches to reduce all things to substance, this reduction of all to one is not as to one genus, but as the reduction of some things to one subject: on account of which if anyone says, that all things are beings, and that being is a common predicate of all, he will name all things beings equivocally, as Aristotle says, and not univocally. But if one common genus of all were this itself which we call being, still all things would be called beings

univocally, because a genus is predicated by name and reason of those of which it is a genus.

For since there are ten first common and most general principles, if these are called beings, the predication will be according to the community of name only, and there will not be community according to the reason of definition, which according to the name is to be assigned. For in such things being simply is substance, and the others are not simply beings, but are passions of being, as quantity the measure of being, but quality not being simply, but the disposition of being: and thus of the others. Nevertheless because in such things there is a respect to one which is simply being, therefore it is not simply equivocal. Wherefore not of all respecting to one is there the same mode and reason of respecting: for one is as measure, the other as disposition. Therefore as to this it is equivocal. And therefore the whole together is analogous, that is, called common according to proportion, which is a middle between the univocal and the equivocal: which simply, as Boethius says, is equivocal by chance and fortune. And univocal which is simply univocal through the unity of name and unity of defined reason. For in such a univocal and to which many respect, one and the same is the being in substance, and in all which respect to it, there is one mode and one reason of respect and of respecting to it.

Therefore these indeed ten which are the first principles of all, are most general, and are finite in number by a denary. For in these ten as if in gen-

era rests the resolution of all. But the most special (which are immediately before individuals, and cannot be divided by opposed differences) are in a certain number indeed according to nature, nevertheless it is not defined and certain as to us. But that it is certain according to nature as for this intention, is sufficiently proved from this, that there is no genus whose power is infinite. But the power of a genus is determined to the act of a species by constitutive differences. Constitutive differences therefore are finite: because otherwise they would not finish the finite power of the genus. To the nu-

-ber however being finite of constitutive differences finishing the power of the genus the number of species is finished. The number therefore of the most special species is finite as to nature. But individuals which are after the most special as to the power of nature are infinite: for matter is divisible to infinity through the power of nature through the continuous bringing and taking away of the first generating and dividing matter: it is necessary therefore, that by the power of matter individuals are infinite, and the individuating accident thus or thus by the power of nature is infinite. Although therefore in place and time both single ones and all in act are finite, nevertheless by the power of nature, and the division of matter, and the mode of individuating they are infinite. And therefore comprehensible neither by science nor by art. Therefore Plato commands, that descending from the most general through division, and arriving all the way to

the most special, one should rest and not divide further: of which he induces the reason, because it is necessary for one descending from the most general to go and descend through media: because from an extreme into an extreme one does not come except through a medium, neither thus can one descend except by dividing the extreme into media by specific differences, to the number of which the number of species is multiplied. For the essence of a genus is numerable by specific differences, which are in the genus as act in potency: but the potency of matter is infinite. Individuals, says Plato, are to be relinquished, because concerning them through a certain and determinate division discipline cannot be known: and therefore neither by science nor by art are they determinable.

But the whole which has been said in this chapter, is gathered under compendium thus, that the Philosophers and mostly the Peripatetics determine describing, that the most general is, that since it is a genus, it cannot be a species: and therefore the reason of a genus is not alternated into the reason of a species. And again they determine the most general saying, that it itself is the supreme genus, upon which there is not another supervening

genus, because in that order there cannot be anything superior to the supreme. But the most special on the contrary they say to be, that since it is a species, it is not a genus, nor can it be alternated so that it would take the reason of a genus. And again they determine the same most special,

that since it is a species, it is never divided into species, because it is not an essence numerable or divisible by specific differences, but is numbered by the division of matter. And therefore it is the most special, which is predicated in that which is a 'what' of many differing in number alone. But those genera and species which are in the middle of the predicted extremes are called subaltern genera and species: because each can be both genera and species alternately or suppositively, when alternately placed and compared to one thing and to another. But those which are by ascending from the most special all the way to the most general, are called both genera and species. And they are called subaltern genera as in families descending from one, in which any of the media both gives and takes genus, as Agamemnon, Atrides, Pelopides, and Tantalides, and thus by ascending through all families all the way to the ultimate family of Jupiter, from whom all those families drew their genus, as from the first principle of their generation.

But in this it is dissimilar, because in families mostly all media are reduced to one, which is truly the principle of all; for example to Jupiter the first father. But in genera and species it is not thus. And this is therefore, because that common thing which is called being is not the same common genus of all: nor are all the most general reduced into being, of the same genus in being, according to which one genus is taken, just as Aristotle says, a genus ought to be taken which according to one reason is equally predicated of

species. But genera are placed in being according to prior and posterior, as has been said in the *Categories*. For according to that doc-

-trine the most general genera are as if ten first principles of predicables, which further to another principle which would be their principle as a genus are not reduced. Whence if anyone calls all things beings, such that being is predicated of any genus, equivocally, says Aristotle, he will name them beings, not univocally. For if one and the same were the genus of all predicaments, namely being itself, all predicaments would be called beings univocally, and univocally and equally would they receive the predication of being. For since, as has often been said, there are ten first principles of all things, nor would they be principles if they had another principle above themselves, it is clear that the community which they have in being is according to name only, and not according to the reason of definition even that which is according to the name: because if being were predicated of all by one reason, either all would be substance, or all accident, which is impossible. These therefore indeed are the most general. But the most special are in a certain number finite as to nature, not however as to us in a defined and certain number. But individuals which are after the most special are infinite as to the power of matter. On which account Plato orders one descending from the most general all the way to the most special to rest from dividing. But Plato orders to descend through media which are genera and species dividing any of them immedi-

ately from the genus by specific differences. For infinite things, says Plato, are to be relinquished, nor of those things which are infinite does Plato say discipline can be made.

### CHAPTER VI.

### *On the mode of coming from the most general to the most special, and conversely.*

But because in the coordination of extremes and media there is a way of coming from extreme into extreme through media, it is necessary to touch upon how he proceeds, who goes from the supreme predicable all the way to the lowest through media, and how he proceeds, who on the contrary proceeds from the lowest through media to the supreme. We say that he who proceeds from the supreme through media to the lowest (which is called the most special) it is necessary, that he descend from the prior according to nature into the posterior, and thus always proceed by descending all the way to the proximate predicable. And thus it is necessary for one descending to go through a multitude. For one does not arrive into the posterior, except through the division of the superior. But if a division is perfect, by segregating all parts of the divided, it is always a cause of multitude. For therefore is a division perfect on the part of the divisible: since through division he takes all parts of that which is divisible: on account of which when body is taken under substance, first it is necessary to understand the division of substance through corporeal and incorporeal substance, and then one constitutive difference conjoined with the

genus takes body, and thus the descent is made through a multitude, which whole is caused by the fore-understood and perfect division. For to take one part from the whole not divided from the opposite with the other part, is an imperfect division: for it does not perfectly explicate what is of parts in the whole.

And conversely however if anyone ascends from the most special to the most general, it is necessary to collect the multitude into one, from which through division it was taken: for thus ascending he resolves and reduces all divided things (which are not many except through division) into the one form of that which is divided. And thus from many he proceeds to one. The cause of which is, because that which is common of many, is because of collection in this mode by which collection is called of many into one nature which in them is adunation and resolution. For thus the collective of many which by the division of matter are many into one nature of a species is a species: because one nature of a species is in all individuals of the same species: for it is not thus in one, that it is not in another: but since it is in one, it is also in another through the aptitude of nature and form,

although not according to what is in one, is it also in another as has been said in the principle and the universals. But the genus is more collective and adunative than the species, in this that it collects more than the species, even if the species is more one according to intention than the form of the genus: for those things which are

one in species are less distant from one another and more one than those which are one in genus, since the genus unites in itself and collects more than the species: for it unites and collects many species and all things which are collected in the species.

But particulars and singulars insofar as they are of this kind, are always in a multitude: the cause of which multitude is the division of matter, and therefore by a contrary mode of collections of a common species, they divide that which is one in nature into many, not indeed by a division of form, but by a division of matter, as has been said.

But it is divided by the division of a universal whole, because that which is divided is divided through being, and through nature and form, according to its whole essence and power it is in individuals. And on the contrary the species collects and unites many things as if divided into one: for by participation in the species many men are one man. Not indeed thus, that this man who is one man through matter, would be many men divided through their matters and their suppositesites: but because by that very participation in one which is participated in by many according to what it is in nature and essence as one, many are united, and are one according to this mode. And this is the same as if it were said that Socrates and Plato and other singular men are one in man, according as man says the nature of the species predicated of them. And if thus by participation in the species many men are one man, it does

not follow from this, that simply many men are one man: because one man and many men are simply said from the plurality or unity of the subjected matter. On the contrary, however, from men particular or particulated through matter, one man, one nature, and one common form of all is made many men according to singular being: and divided through the subject into all, remaining nevertheless undivided according to the common nature and form and according to universal being. For that which is singular and determined according to being and subject, is always divisive of its proximate common and determinative. But that which is common and universal, is always collective and adunative.

But although to collect and to adunate are the same in substance, nevertheless they differ according to reason. For collection begins from many, and is terminated at one: adunation begins from one, and is terminated at many, which are united in one. But let this, that it may be better manifested, be explained in more [cases]. For collection is only into one containing place, but not uniting, as a heap of stones is said to be collected. And these are properly called collective names, as heap, crowd, people, and others of this kind. In such things indeed the collection is perfect, but the adunation imperfect. And therefore such things are not predicated of their parts: because individual stones are not a heap, nor are individual men a people or a crowd.

There is likewise a collection of many moving towards one and towards one end: such as is

the collection of an army in a moving leader, and an end, which is victory. And this collection adunates more than the preceding, even if this also does not make a perfect adunation according to nature. And therefore the whole is not predicated of the part, because a single soldier is not an army, but because all are united in the mover and the end, therefore it follows that individuals are moved in individuals and the leader, and individuals according to the analogy of their operation perfect the victory.

There is likewise a collection into one figure of perfect quantity, as the foundation, and the wall, and the roof are said to be collected into-

one form of an integral whole: because the form is not in the parts dividedly, but simply indeed in the parts taken conjunctly, and in any of them dividedly it is not except according to something: therefore that form although it collects the parts and adunates them to itself, nevertheless it is not predicated of all parts except conjunctly, and not of any of them dividedly.

Next to this there will be yet another form, which although it collects parts, and in some way unites them, nevertheless it does not add its whole perfect power to any of them, such as is the form of a kingdom, and generally the power of a whole kingdom is constituted by powers as parts, as is the power of the governor, the palatine, and the leader, and the count, from all of which the kingdom is made. And this form which does not unite according to the whole power, again cannot be predicated of the parts simply: because the

governorship is not the kingdom. For such a form communicates its power to the parts orderly, and therefore any part is some power of the kingdom, and in such things it is true, that whatever the inferior can do, the superior also can, but it is not converted.

And according to a mode in some way similar to this, a natural form collects and unites to itself the parts of matter which it terminates. And therefore it is not predicated of matter or of the parts of matter, because it exceeds the parts in power: and thus an animal is not sight, or hearing, or another thing of this kind, since it can do what sight can do, and more, and thus it is in all others. There is finally a form which perfectly collects and unites parts, so that it collects and unites individual ones to itself, so that its being in individuals is the same as the being of the individuals, or not diverse from it, and therefore it is predicated of individual parts: and such a form is of genus and species and of others which are universals. And in this mode we understand here, that one ascending from the most special to the most general, collects and adunates the multitude into one, and that the common is collective and adunative.

But genus having been thus assigned, and species thus assigned, what each is through definition, it is clear from the aforesaid, that in every proximate division of a genus into species, the genus is always one and the species into which it is divided are many. For the division of one and the same genus is always into many species:

the reason of which is, because a difference does not divide nor has it an act except through opposition. But nothing is opposed to itself, but it is opposed to that which it is contrary to. Every difference therefore which divides a genus, has a difference opposed to itself: and therefore a genus conjoined with one difference makes another species opposed to that one, because otherness, as Boethius says, is caused by opposition: on account of which Aristotle says, that if someone assigns something for a difference in a definition, it must be considered if its opposite is also a difference of the same genus. For if the opposite is not a difference, neither was that which he assigned a true difference: for a genus is not divided except through opposite differences or forms which are differences: but opposite differences conjoined with a genus always constitute not one, but many species.

There are nevertheless those who object against this which has been said through that which was said from the beginning about the universal, that namely from the aptitude of existing in many and of being said of many a universal is said, and not from the act: that namely it be in many and of many by act: because otherwise the sun would not be a universal. For from this they wish to infer, that a genus is what does not have many species, but what is apt by nature to have many species. And thus it is not necessary for a genus always to be divided into many species. But to this it must be said, that it is not true of a genus, but of the most specific species alone:

because a genus is not divided except through those things which are in it by natural and substantial power, and therefore it is divided per se: and it is necessary that it be divided into many things which are many by act. But a species is not divided-

through those things which are in it: nor is it divided according to its substantial power, but rather it is multiplied and numbered than divided through that which as a whole substantially is outside its nature and essence, namely through matter which is nothing of the formal essence of its power. And therefore it happens to a species to be in it: on account of which only aptitude suffices in a species so that it may be apt to exist in many, for this that it be a universal, even if in act it is not except in one alone, or perhaps in none, provided it is a form which according to aptitude is born apt to be in many[1].

It is therefore to be known, that a genus is not that, which does not have many species. Whence if we posit there is not any species of animal except man, then indeed it follows, if man is, animal is: but it does not follow, that animal is a genus because of the cause which has been said. But in the most special species alone indeed, as has been said, aptitude suffices for this that it be a universal according to aptitude. But if this aptitude ought to be reduced to act, it is necessary that in act it be in many and of many: and not only is it a universal according to act, but according to aptitude alone. But in those things in which aptitude is reduced to act, through the division

of matter it is reduced to act, as has been said: because the aptitude of nature to many, is not to so many, that it could not be to more: therefore continuously thus it can be reduced to act into infinity.

But in every such coordination of predicables a genus indeed substantially and universally is predicated of a species, and all superiors of inferiors substantially and universally are predicated: but a species whether it be subaltern, or most special, neither is predicated substantially and universally of the genus proximate superior to it, nor is it predicated of genera superior to it not proximate, but conjoined to it through a medium. But the cause of this is: because between such superiors predicated of inferiors substantially and universally the predication is not converted, in that the predicate is in more than the subject. Whence it does not follow, if man substantially and universally is an animal, that an animal substantially and universally is a man: for there is some animal which is not a man, as a donkey, or a lion: for animal although it is of the intellect of man (and therefore it is necessary to be predicated of him) nevertheless conversely man is not of the intellect of animal: because of which animal can be without man.

But in every ordinate predication (in which according to the natural order of predicables one is predicated of another) it is necessary for equals or peers to be predicated of equals, or peers, as the predication of convertibles, as every whinnying thing is a horse, and every horse is a whinnying

thing. For in such things the subject is the converse of the predicate: and therefore neither does the predicate relinquish the subject, nor does the subject relinquish the predicate. Or it is necessary for greater things to be predicated of lesser: and in such things the predicate is of the reason of the subject: and therefore the subject never relinquishes the predicate, although the predicate can relinquish the subject: and such predication is as when animal is predicated of man without conversion.

And if anyone insists, that man is predicated of animal, when it is said, some animal is man, or this animal is this man. There is no instance: because this predication is not substantial and according to the order of predicables, because it is by accident: for it happens to an animal to be this animal which is a man or this man. But lesser things of greater things according to this mode of predication are least predicated: for neither do you say animal universally to be man, just as you say man universally and substantially to be animal[2].

But according to the whole coordinatio-

-dination of predicables of whatever things a species is predicated whether subaltern or most special, of all the same things will be predicated universally both the genus of that species, and the genus of that genus, and thus all the way to the most general, which is the ultimate in ascending, and the first in descending predicated in that coordination of predicables. The example of which is, that if it is true for Socrates to be

man, and man animal, but animal substance: it is true, that both Socrates is man, and that Socrates is substance: for always both substantially and universally in such a coordination superiors are predicated of inferiors and of the individual. And the most general will be predicated both of the genus proximate to it posited under it, and of all inferior genera, if there are many subaltern media between it and the most special: and it is predicated of the most special species, and of the individuals which are under it.

But attend, that as has been said, the form which is predicated, is not predicated unless it be more known, and the name of the whole being of the thing. But the whole being of a thing is either in remote potency, and thus it is named by the most general: or in proximate potency, and thus it is named by a subaltern genus: or in the most proximate potency, and thus it is called by an immediate genus: or it is in act, and thus it is named by the name of a species. But concerning the predication of difference, property, and accident, it will be treated below. And therefore Aristotle says that it is not living and animal, nor animal and man at the same time. Therefore such a mode of predicating is concluded from that which is called the order of predicables.

But these things which have been said, are said in compendium thus, that for those descending to the most special it is necessary to go through a multitude of species by dividing a genus by opposed differences. But for those ascending from the most special to the most

general it is necessary to collect the multitude into one nature of the divided genus. For a species is collective into one common nature, and more collective of many is that

which is a genus: but particulars and singulars always existing in multitude, on the contrary divide into a multitude that which is one common: and thus by the participation of a species many men are one man. But by particulars thus dividing a species, and distracting it into multitude, one and common man is many men: for always divisive of a common is that which is singular: but collective and adunative of many into one is that which is common.

A genus and species being designated thus through definitional reason what each of them is, and the genus indeed being one, but the species many through the division of opposed differences, always there will be a division of a genus into many species through the cause designated above. A genus indeed in such an order always universally and substantially is predicated of a species, and all superiors of inferiors. But a species neither is predicated of the proximate superior genus to it, nor of the superiors not immediately conjoined: for neither is such predication converted by which a genus is predicated of a species. For in every substantial ordinate predication it is necessary for either equals from equals to be predicated, as whinnying of horse: or it is necessary for greater things to be predicated, that is, more common things of lesser things, as animal is predicated of man, since animal is

in more than man. But lesser things of greater things according to this mode of predicables are least predicated, unless by accident, as has been said. For neither do you say and predicate animal universally to be man, just as you say man universally to be animal.

But of whatever things a species universally and substantially is predicated, of these necessarily both the genus of the species will be predicated, and the genus of the genus all the way to the most general. For if for example's sake it is true to say Socrates to be man, but man animal, but animal substance: it is true both to say Socrates animal and substance. Always therefore naturally superiors are predicated of inferiors. Spe-

-cies indeed substantially is predicated of individuals. But a genus is predicated of a species and of an individual. But the most general will be predicated both of a subaltern genus and of all genera, if there are many media and subalterns between the most special and the most general: but it will be predicated of the most special species and of individuals according to the whole coordination of predicables of this kind. For thus in all things it is true, that when one is predicated of another as of a subject, in which it is specially conceived through the intellect: whatever things are substantially predicated of the predicate, it is necessary for all to be predicated of the subject. And negatively similarly whatever things are universally denied of a predicate, it is necessary for those also to be denied of the subject: for animal

since it is not stone, it is necessary also that man is not stone.

### CHAPTER VII.

*On the mode of predicables which are predicated.*

But from all things which have been said, it is established that we say the most general is predicated of all things which are posited under it in a straight order as much of genera as of species and individuals. For whatever genus which is immediately before the most special, is predicated of all the most special things, as animal of man and of donkey and lion and other species: it is also predicated both of the individuals of those species through this that it is essentially in them and of them. But that which is thus a species, that is only a species, and not a genus, which is the most special species, is not predicated through itself except of individuals. But an individual which is certain, is not predicated, except of one alone discrete and designated, by that predication which was determined beforehand: although a vague individual might be predicated of many, that is, by the predication of a species, and not of an individual, as has been said. For an individual which is discerned from other particulars posited under the same common, is formed in a twofold way: for substance is formed through accidents which are signs of such discretion, which are imported in a proper name, as when it is said Socrates. But because an accident is not individuated except through substance, therefore

an individual of accidents is designated through demonstration to the thing standing under the accident, as this white thing, and this coming thing, so that the accident may be designated as much without time and motion, as with time and motion. Another is also discerned through circumlocution, as the discretion of Socrates is designated through his generator, or the place of generation, as when it is said son of Sophroniscus, if Socrates alone be his son: for from the generator principally he draws his origin, because this one generates this said one: and in such things sometimes to note a greater discretion we change appellations by saying son of Sophroniscus, noting that under this appellation he is more discretely known, than under the appellation Socrates.

For such first substances are called individuals on account of this, that as to discretion not as to substance every single one of them dividedly consists of properties, of which the same collection in number never will be in any other. Which (as Boethius says) are seven, namely proper form, proper figure, proper parentage according to which through this or that decision of seed he descended from parents, proper naming imposed from a proper accident, proper fatherland according to which the fatherland is called the center of nativity in which the period of the celestial circle looked in nativity, proper time, proper place containing all these things: for these cannot be abstracted from this thing because through this both here and now. For although this matter

is the principle of particular form and of individuation and a substantial part of an individual: nevertheless these accidents although they do not compose a singular substance, are making toward the notice of its discretion, and if the individual not as a particular substance, but as discrete, and discretely the name designe--signated: then the accidents are names conceived in the reason, and of the essence of the individual thus designated: although they are not any part of the particular substance according to what substance is, for this is not composed except from this form.

But properties which are of the common man through this that the common man is in many, are found also in many, such as risible, and mild by nature, and perceptible of discipline, and of this kind. For these are in many, and what is more, they are found in all particular men: for they are in them through the common which is in them, and therefore they agree with them in that which they are men. For in the direct order of predicables the individual is contained under man, or generally speaking under species. But the species is contained under genus. For the genus is a certain universal whole, and that which is a genus according to what a genus is, [is] nothing but a whole. But the individual is not a whole, but only a subjective part of a universal whole. But the species which is in the middle, is between genus and individual, and is both whole and part compared to different things: but a part indeed of the other genus which is a whole to it. For

a species is a part of a genus in power: because the genus is not according to its whole power in the species. But the species is a whole, not of any whole: because nothing participates in it according to a part of its power, as the species itself participates in the genus, but it is a whole to all other individuals: because the species itself, as Boethius says, is whole being in individuals. Nor are individuals referred to a species as its parts, but rather as singulars according to whole being and power, having the species in themselves and participating.

Briefly therefore saying, the most general indeed we say or predicate of all species, genera, and individuals placed under it according to its coordination. But a subaltern genus, which is before the most specific, we predicate of all most specific [species] and individuals. But species we predicate of all individuals placed under them.

But the individual we predicate of one alone not by a proper predication. For the individual named under a description Socrates, or in accidents this white or this name through demonstration or through a circumlocution of more manifest speech "the son of Sophronicus": for if he had many, then by such a circumlocution Socrates would not be discerned. Individuals therefore by the voice of discretion are called of this kind: since as to their discretion each one of them consists of such properties, the collection of which will never be the same in another. For the discretive property of Socrates would never be in any other particular man. But these properties

which are common properties, will be the same in many. For those are properties of the common and not of the singular according to what it is singular. And, that more may be said, properties of the common man are in all in which there is one common nature: for those participating in a common nature, also participate in properties following that nature. Such common properties of man therefore will be in all particulars in that they are men. According therefore to the aforesaid order of predicables the individual is contained under species, and the species under genus. For the genus is a certain whole insofar as it is a genus. But the individual according as it is an individual, [is] a certain part. But the species is both whole and part. But it is indeed a part of another, that is, of a genus in which it participates according to a part of its power: but it is not a whole of another which would participate in its part, but it is a whole to others: for it is a whole to parts, any of which participates in the whole itself.

But that those things which have been said of genus and species depend on each other on account of correlation, is clear from one epilogue: of genus indeed and of species what is most general, and what is most special, and of others which are at once genera and species such as subalterns. Moreover also what are individuals, whether certain, or vague, or-

certified by demonstration or circumlocution. Furthermore also in how many modes a genus is called, and in how many modes a species is

called, as much as pertains to the present logical intention, has been sufficiently said.

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### CHAPTER I — *On the distinction of the name difference which is said in many ways.*

Consequently we must treat of the universal which is called difference. For because this constitutes a species, and is predicated of a species and of the definitional reason of the species itself, therefore it was to be posited before species, unless the mutual correlation of species to genus, and of genus to species had stood in the way, just as was said in the preceding things. But before we make known difference which alone is one of the five universals, and determine concerning it, it behooves us to distinguish the multiplicity of the name difference: for this is said in many ways according to prior and posterior.

Difference therefore is said in many ways, as Avicenna says, not like genus and species: because in genus and species the first use of these names was in physics and politics, and from those these names were taken for the use of philosophy. But in difference it happened conversely. For the name of difference first was in the use of Philosophers, and from there it was taken over to the use of those speaking commonly. This therefore is the true cause, that the name of difference is said in many ways, namely commonly, properly, and more properly.

But it is called common difference, which is among those speaking commonly by considering those things which are first objected to the

senses. Commonly therefore one is said to differ from another by a difference, when one is said to differ from another by a certain otherness of whatever commonly apprehensible accident, in whatever mode according to all genera of accidental forms. Nor are such differences therefore called common, because they are commonly in the things which they make to differ: for if it were so, they would not be called differences, but conveniences. But they are called common differences, because they are in use by those speaking commonly. For the vulgar in assigning the differences of things, makes things to differ by such things, as it commonly apprehends from the outside in things through sense.

But thus in such a difference an individual of one species differs from another individual of the same species, as Socrates differs from Plato by a certain otherness of sensible accidents, just as Apuleius says, that Plato was broad in face, but Socrates not. By this difference also one individual of one species differs from itself in two times, as Socrates already existing a man or an old man, differs from himself as a boy through accidents of youth and old age, which do not quickly relinquish the subject. Thus also Socrates differs from himself when he does something, writes, or reads, himself resting from such a work, which are quickly separable accidents. And that it may be said generally, this difference is always considered according to some mode of having oneself diversely to oneself, or to another by whatever othernesses: or accidents of what-

ever genus quickly or not quickly separable. This therefore is the acceptation of difference according to the intention of the name given among those speaking commonly: on account of which also it is called common difference, that is, which those speaking commonly attend to.

Next to this mode more closely to the true mode is taken the difference which is called proper: from the fact that to that in which it is, through a connatural cause it is appropria-

-priated, as when one is said to differ from another by an inseparable accident: which is therefore inseparable, because it has a cause which is in the subject in which it is, such as is the flatness of the nose in the snub-nosed, whose nose is compared to an ape's: or some hardened or inseparable scar, when it has become calloused from a wound: for flatness is in [it] through nature, but he having a scar differs from him who does not have a scar, and sometimes the same one having a scar now [differs] from himself before he had the scar. But this is called proper: because by some reason it approaches that which by its true name is called a difference: for this, although it is not of the essence of that in which it is and which it makes to differ, nevertheless has a cause in its essentials, whether they are essential to its complexion, or are essential to its composition, and thus it approaches the reason of a true difference. But when we say that such a difference has a cause in the subject in which it is, and which it makes to differ, we do not understand by "subject" that which is in species only, but by that

subject in number in which is that which makes to differ, as flatness in a nose, or lameness in a shin. It is necessary to consider this difference by reason: and therefore it now approaches the true use of difference (according to the mode by which philosophy uses difference).

But according to a more and most proper mode one is said to differ from another: since it differs under another both universal and specific difference, as man differs from horse by a specific difference: which difference is indeed the essential quality of man, which is called reason. For this difference, although it is the essential form of man, nevertheless is a natural quality of the genus and perfective of its power and determinative of its community and confusion, as Avicenna says, and therefore it is substantial of the species, and substance and principle of substance like a form: and it is perfective of matter, and determinative of its confusion, and the principle of the thing which is composed of matter and form.

Therefore this distinction of difference or division is of a multiple [term] said by analogy to one act which is to make one differ from another: which indeed belongs to the true, that is, to the more proper difference according to its true reason, but to others according as they make [things] differ more or less. And therefore the first difference is called simply that which is called more proper, secondarily that which is called proper, and thirdly that which is called common. But as to us, that difference is said first which is common: on account of this, that it presents

itself to the first face of our notice. But secondarily is said that which is called proper: because it is less commonly apprehensible. But lastly that which becomes known to fewer [people] using substance and intellect.

This division therefore having been thus posed, let us declare through the proper effects of each member the parts dividing this common, which is difference. Let us say therefore, that in this the first two agree, namely that which is commonly difference, and that which is properly called difference, that that in which they are and make to differ through that which is the cause of the difference, they do not make their subject except only altered when they come to any subject. But that difference which is more proper through that which is the cause of differing, makes [it] to be another in substance that which differs from that from which it differs.

The proper effect of differences is therefore concluded, that of differences some through that which they do to make [things] differ, make that which differs from that from which it differs to be altered only. But others through that which makes to differ, make that which differs from that from which it differs to be another in substance. But the cause of this is, because common and proper difference do not make to differ except through an accident, which either has a cause in the subject, or does not have a cause in the subject: and in whatever way it be an accident, in no way can it be perfective or constitutive of substance: and therefore by itself it cannot make [it]

another, because "another" is not except what is according to substance-

another. And although the snub and the aquiline are another through the substance of the nose, this however is not through snubness and aquilinity which are accidents, but rather through the diversity of the substance of the snub nose, and through the substance of the aquiline nose: just as the risible and the neighing differ through substance, but the cause of this difference is not the risible or the neighing, but the specific forms and the substantial differences, by which man and horse differ substantially.

But from this again arises the manifestation of these dividing differences, that those differences indeed which make another in substance and species through that which makes it differ, are said to be specific differences, that is, pertaining to the species and constituting in the species. But those which only make altered, are simply called differences: not in such a way that the name of difference is predicated simply of them by an absolute and perfect rationale, but because they add nothing over the name of difference which would put them into the form of a true and proper difference: just as when we say that being in potency is simply called being, we do not say this in such a way that being in potency has the name or rationale of being simply, since it is a being in a certain respect and not simply, but it is called being simply, that is, without the determination of anything by which it would be drawn and determined to being in act.

But what has been said is manifested by example: because to this genus which is animal, 'rational' supervening in the definition of man or of God makes that which is in the substance of something another from that from which it differs through that difference, for it makes a rational animal, and it makes the subalternate species animal. But that which is commonly difference through that which is the cause of the difference, as of moving by which someone differs from one resting, makes nothing but an altered thing and not another, inasmuch as it comes from that which is the cause of the difference, which is a separable accident. It concludes therefore that a certain one of the differences makes another according to substance, but a certain one makes nothing but altered.

From these things therefore is shown what was said in the proem of this book, namely that the knowledge of universals is valid and useful for divisions and for definitions: because according to the differences which make another, they make divisions of genera into species: and according to the same and through the same the definitions of species are assigned, because true definitions are from genus and such differences. But according to those which only make altered and not another, the sole alteration consists generally said in accident according to every accident and according to some mode of holding oneself through mutations according to every genus of predicament, whether in it there be motion per se, or to it there be motion per accidens. For alter-

ation is properly only in one species of quality, which is passion or passible quality. But motion per se is only in three predicaments, which are quality, quantity, and where. Per accidens it is also in all, as Aristotle says, and in this way we say it is commonly taken concerning any accidental alteration, whether it be per se or per accidens: because it follows the act of difference, which is to make one differ from another, or the same from itself.

For these differences are taken from common or proper accidents. And there is a threefold consideration of this kind of accident: for if it is considered in itself, then it is an accident or proper, which are two of the five universals dividing from a different side together with difference this common thing which is the universal: and thus neither difference is an accident, nor proper. They are also considered in comparison to the subject in which they are, and thus they are compared to their singulars of which they are predicated, and the comparison is similar as of the species to the individuals. They are also considered according to what through them is the agreement or difference towards those compared, and thus from them are ta-

two modes of difference are taken, which are common and proper difference.

But that difference which makes [something] "another" is taken from the specific form, which is also considered in a threefold way, namely in itself insofar as it is a substance which is a form making substance, and insofar as it is constituted

in a species, and thus it is specified: and insofar as through it that which is formed by it is compared to another according to agreement or difference, and in this mode alone is it called a difference, but in the first mode a form, and in the second mode a species, according to which species is one of the five universals, dividing this common which is universal with difference and the other universals.

And this difference indeed is one of the five universals, the assignment of which according to the first definition Avicenna gives saying, that it is a simple universal predicated of the species in "of what sort somewhat" (*in quale quid*). For this is the difference more properly called a difference, which makes "another", and not [only] "altered". But I say "altered" either by an accidental or an essential quality. But the more proper difference not only [makes it] "altered", but also makes "another", because that which is altered by an essential quality has been made another. This is therefore the more proper difference, which is one of the five universals predicated of the species in [the category of] "what sort": for the reason that difference is the substantial quality of the genus: just as a quality not substantial, but emanating or flowing from substantials, is a property (*proprium*): and just as an accidental quality of an individual not flowing from substantials, is a common accident.

Nor is the argument valid if someone objects: A substantial difference makes [something] "altered": but that which makes [something]

"altered" is a proper accident: therefore a substantial difference is an accident or a property. Because to be "altered" happens in two ways, namely by an essential or an accidental quality, but he argues as if it became "altered" only by an accidental quality. All these things indeed having been said, were comprehended by the ancients under a compendium in such a mode, that difference is said commonly, and properly, and more properly, according to the division of a multiple [term], which is a medium between the equivocal and the univocal. But one is said to differ commonly from another, when it differs by a certain otherness: and in whatever mode of whatever accident which is the cause of the difference or from itself in a different time: for Socrates differs from Plato by a certain otherness of whatever accident which is in Socrates, and not in Plato. And Socrates himself differs from himself in different times: as Socrates having now become a man, differs from himself as a child: as Socrates doing something, differs from himself resting from such a work. And the cause of this difference is on account of some mode of behaving in some accident, which is induced by some othernesses per se or per accident. But one is said to differ properly from another, when it is said to differ from another by an inseparable accident, and therefore inseparable, because it has an inseparable cause in the subject: whence although it be inseparable in act, nevertheless it is separable in the intellect, because the subject is intelligible without it, for a nose can be under-

stood without curvature, and a man without risibility. But an inseparable accident is such as the flatness of a nose, and a scar when it has become calloused from a wound. More properly so one is said to differ from another, that is, through more proper and through more intrinsic things of the substance, when it differs by a specific difference, in the same way that man differs from horse by a specific difference, namely by the rational quality, which is the essential quality of the genus, determining and perfecting the power of the genus.

And because these differences are said from the act of differing, because namely they make to differ, therefore it must be known that every difference makes [something] "altered" when coming to any [subject]: I say "altered" by an essential or an accidental quality. But that difference which is called common and proper, insofar as it is of itself since both are an accident, makes "altered" only. But that which is more proper-

[called] difference, makes "another" in substance through this, that it makes [it] "altered" in substantial quality. Of differences, therefore, some make an alteration or [something] "altered" only: but others make "another". Those indeed which make "another" in formal substance are called specific [differences]. But those which make only [something] "altered" are called simply differences without the addition of any determination by which they might be inclined toward the more and truly proper difference. To this genus therefore which is "animal", a coming

difference which is "rational" makes "another", because it makes a species of animal, which is a substance perfect in form and species. But that difference which is caused by being moved or resting, makes only "altered", and not "another": for he who is moved differs from one resting. Wherefore this more proper difference indeed makes "another": but that common [one] makes only "altered". Therefore, according to the differences making "another", divisions of genera are made, and thus genera are divided into species. And according to those differences definitions are assigned, because true definitions are from the genus and differences of this kind. But according to those which only make [something] "altered", alteration, broadly and universally speaking, consists alone in that which something behaves in some mode according to whatever permutations which can occur in any genus.

### CHAPTER II — *On the manifestation of the modes of difference and of the parts of the division previously introduced.*

For the manifestation indeed of all those things which have been said concerning the modes of difference, we must again begin from the parts of the previously introduced division, so that all parts may be manifested both through the effect, and through the causes, and also through what is appropriate to them, so that in this way that which is to be said concerning the more proper difference may be better understood: for we seek this according to the proposed

intention. Starting again therefore from higher things, we say that of differ-

ences, some are separable, but others are non-separable. But here let us say that differences are essential or accidental forms, from which differences are taken, and which are the causes of differences. For to be moved and to rest, and things of this kind, are quickly and easily separable: although nevertheless many compared to each other differ by them: for that which is moved differs from that which is not moved, and that which rests differs from that which does not rest. But to be healthy and to be sick are accidents not quickly separable, and yet separable: and by these the healthy differs from the non-healthy, and the sick from the non-sick. Separable, therefore, are whatever through some cause leave the subject easily or not easily, as are those which have been mentioned, and those which are close to these by similarity, and they are separable. But on the contrary, to be "hooked" (*aquilum*) and "flat" (*simun*), which are accidents of the nose having a standing and remaining cause in the nose. For "flatness" (*simitas*) is caused by the curvature of the nose and the depression of the middle of the nose: but "hooked" is caused by the twisting back of the anterior part of the nose over the upper lip, when the middle of the nose is elevated, and the cartilage of the nose at the front is curved back toward the upper lip in the manner of an eagle's beak. But these causes, since they are of the composition of the nose, are standing and remaining in the nose. And there-

fore accidents caused from such figures are inseparable, because while the cause stands, which is a cause *per se*, the effect will stand. Similarly, in the essential quality from which difference is taken, they are inseparable, as "rational" and "irrational", which are the acts and forms perfecting and determining the power of the genus: and therefore they have a cause of inseparability by such an act of determining such a power. Such, therefore, and for such a cause, are separable and inseparable differences.

Of inseparable differences indeed there are two modes: for some of them are taken from those which are *per se* of the essential constitution of the thing itself (which is said to differ). But others of inseparable differences are per accidens, namely in such a way that that from which the difference is taken, does not-

is of the essence and substance of the thing, but is an inseparable accident. And therefore here we take *per se* more strictly, than as it is determined in the first of the *Posterior Analytics* by Aristotle: for he says that it is per se whether the predicate is of the rationale and definition of the subject, or the subject in the definition of the predicate, according to which mode *per se* is this, man is risible, the nose is snub or aquiline. But we do not call *per se* here, except that which is essential and coming into the substantial constitution of the thing, as genus and difference. For thus rational *per se* is in man and mortal, and through the intellect to be perceptible of discipline, and such like. But to be

aquiline or snub or to be risible are in man per accidens: for it is not the definition of a nose that a nose is depressed in the middle, or bent back in the front. But in all these differences we call forms those from which differences are taken, when things are compared according to agreement or difference. Therefore those differences which are per se essential, receive in the definitive rationale given according to the substance of the defined thing: because the definition collects according to order all the substantials of the thing from its first potency in which the being of the thing is initiated, up to its ultimate act by which the thing is according to its whole quiddity.

And because differences thus called are taken from the fact that they are substantial forms and perfective of being itself, therefore they make another according to substance from that from which it differs: because if one completive of substantial being makes one substance, it is necessary that the opposite of it makes another substance, because the effects of diverse substantial forms according to substance are diverse and opposite. But those differences which are taken from accidental forms, which do not constitute the being of the thing, but rather are caused by the subject, and do not have being except in the subject, nor do they enter into the definitive rationale of the substance or substantial quiddity of the thing, do not make another according to substance inasmuch as it is of itself, but make an altered thing only according to accidental form.

Whence although sometimes they may not agree except with others and others according to substance, as to be aquiline and snub do not agree with the same thing, but with a man, and an ass, which are another and another according to substance: nevertheless they do not make the alterity of the substance, but rather they are made by another and by another substance according to form and nature.

But moreover the difference of such differences is manifested through another thing, whereby those differences indeed which are per se (so that they are taken from substantial forms, which perfect the substantial definition in that in which they are) do not undergo more and less through intention. Of which the cause is, because such substantial forms are simple, not mixable with their opposite or contrary forms, just as the rational is unmixable with the irrational, because the forms from which those differences are taken, namely humanity, and asinity or donkeyhood, are unmixable. For since intention is made according to the ascent to a term, to the true imposition of a name according to the greater or lesser admixture with contraries, as Aristotle says, it is established that those forms which are simple and have nothing of the contrary admixed, are always in the term, and therefore cannot be intended. But those differences which are per accidens, so that they are taken from an accidental form, although perhaps this accident may be inseparable, nevertheless undergo intension and remission.

However what has been said has a doubt: because to be risible or braying or aquiline or snub, are forms which are not mutually mixable to each other: and therefore according to the induced rationale they do not admit more and less; which is false, because there is from the snub a more snub, and from the aquiline a more aquiline, and from the risible a more risible, and so of others. Against which also some object saying, that whatever equally par-

-ticipate some common thing, they ought equally to participate that which is that universal consequent of the common thing: but this common thing which is man is equally participated by everyone of the individuals: therefore it will also perhaps seem to someone, that the risible which is a universal consequent of man, ought to be equally participated by every individual man. But moreover even those which are differences *per se* seem to undergo more and less: for we see that one man is more rational than another. Besides in the *Ethics* some are called peculiar or brutal men, and some further removed from the use of reason are called arboreal men: it seems therefore that substantial differences also undergo more and less, and thus what has been said does not seem to be true.

But to all these things Avicenna responds. To the first indeed saying, that intention is twofold, and the cause of intention is twofold. One indeed through the greater or lesser admixture of the contrary, as has been said: and those are the ones in which there is motion from one to another,

just as it is in qualities which are called sensible qualities, whether passions, or passible inferring passions, or inferred. For since motion is the act from potency to act, or form flowing after form, as Averroes says, it is necessary that in the whole motion the act be mixed with privation: but privation is in the contrary, and therefore one in its whole motion is mixed with its contrary. And therefore in such things intention is according to the separation of the contrary: for through such separation it continuously approaches to being in the term to which the name is truly imposed. For this name *white* is imposed on true whiteness, or on the truly white: for the truly white is that whose whiteness has nothing of the contrary admixed. This therefore is one mode of intention, and having the cause which has been stated. The second mode is in those things which are not mixable, but are caused by the subjects in which they exist. Therefore because these are consequents of the being of the subject, they must necessarily be accidents: because everything which follows the being of the subject in which it is according to nature and intellect, is an accident, since everything which is substantial to something is the principle of its being: but the principle is before that of which it is the principle according to nature and intellect. But in such a way accidental forms are those which are called proper, and are caused from the habitudes of essential principles. And therefore with those habitudes existing more and less, it is necessary that such forms also be intended or remitted: on

account of which one who is more apt to wonder, is more risible, and one less apt to wonder, is less risible, and a more curved nose, is more snub, and a less curved one, is less snub, and so of others. And in these forms there is no motion, but they are certain consequents of the motions of their subjects, just as to be snub or aquiline follows a certain motion of the nose, and so it is in others. For they all follow the motions and mutations of their subjects, and from them they undergo more and less, and not from themselves.

But to this which is objected concerning essential and substantial differences, Avicenna solves it thus, that the substantial form from which the difference is taken, is considered in three ways, namely as a form conferring being: and as a difference, because one species is compared to another of another species: and as the principle of natural or substantial action. And indeed in the first way it does not undergo more and less. But in the third way the action of which it is itself the principle is considered, in a twofold manner: namely on the part of the form which is the principle of the action, and on the part of the subject or on the part of the composite, of which the action itself is as of the agent properly. And indeed in the first way it does not undergo more and less: but in the second way sometimes it has in the subject those things which promote acting: but sometimes those which impede acting. And in this way according to action it seems to undergo more and less, and this is per accidens, and not per se,

and therefore per se they undergo neither more nor less. But this is proved through induction: because neither is the genus predicated according to more and less of that of which it is the genus: although nevertheless the genus is the form which is the notion of that which is in potency. For animal is not predicated according to more of a man, and according to less of an ass, but equally of both. Nor are the differences of the genus which divide the genus and with the genus constitute the species, predicated according to more and less of the species of which they are differences: because a man is not more rational, and an ass less irrational, but equally. For those are the differences, which complete the definitive rationale of each species, and are the acts completing its being. But the substantial being of each thing whether it be said by the name of the genus according as it is in potency, or signified by the name of the difference according as it is in act, is one and the same not undergoing more and less according as it is the effect of substantial principles. For thus it is undergoing neither intension nor remission. But to be aquiline or to be snub or to be colored, somehow undergo intension or remission: because, as has been said, there are several modes of intension and remission.

Therefore it has been declared that beginning again from the superiors it must be said that of the differences indeed some are separable, but others are inseparable. For to be moved and to rest, and to be healthy and to be sick, and all that are akin to these and are taken from such easily

or difficultly movable accidents, are separable or certain separable things. But on the other hand to be aquiline or to be snub, or to be rational or irrational, whether taken from separable accidents, or from substantial forms, are certain inseparable things. But of the inseparable differences, some indeed are per se, that is, taken from substantial forms: but others are per accidens, that is, taken from inseparable accidents. For rational per se, that is, through the substantial form is in ma-

-n, and mortal, and perceptible of discipline. But on the other hand to be aquiline or to be snub, or to be risible, is in man according to an accident, and not per se. Those differences therefore which are in per se, are taken in the subject by a definitive rationale, and make another according to substance from that from which they make it differ. But those which are according to accident, are neither taken in the definitive rationale of the substance, nor of themselves do they make another, but an altered thing only. And those indeed which are per se and substantial, do not undergo more and less. But those which are per accidens, although they are inseparable, nevertheless somehow undergo intension and remission. For neither is the genus since it is a substantial form predicated according to more and less of that of which it is the genus. Similarly neither are the differences of the genus according to which the genus is divided: for they themselves are those which complete the definitive rationale of each thing, and do not undergo more and less. Of which the cause is, because the being which

is the quiddity of each thing, is one and the same according as it is formally constituted from essential principles. For thus it is undergoing neither intension nor remission, although according as it is in the subject, through diverse preparations of matter in accidents it may be more and less impeded or expedited. But to be aquiline or to be snub or colored, in some way either through the mixture of the contrary, or through the cause which they have in the subject, are intended or remitted.

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### CHAPTER III.

### *How substantial differences are constitutive, and how they are divisive.*

But with all the divisions and species of differences thus determined, that difference alone is one of the five Predicables, according as we intend here concerning universals, which is per se and a substantial difference. But this is proved thus: because since the three modes of difference, as has been said before, are considered, namely common, proper, and more proper; further indeed since some are separable, but others are inseparable on account of the reason which has been mentioned in the previous sections; and again since of inseparable differences some indeed are *per se*, others *per accidens*, as has recently been said: it is clear that if we consider those which are *per se* by comparison to those of which they are differences, we shall find that of *per se* differences there are some according to which we divide genera into species, dividing

the power and not the essence of the genus. For the essence of the genus remains whole and undivided in whatever things are taken through the division: but the power is partitioned, and according to something of it it is in one of the dividing [members], and according to something it remains in the other, and in none [is it] according to the whole. But others of those differences which are *per se* and substantial, are such according to which those things which have been taken through the division of genera are specified.

But this division of *per se* differences is not but a division of mode: which mode is taken from the proper effect of the difference. For if the difference is taken in actual opposition to that from which it makes to differ, for certain in this mode it is divisive and separative. For opposition divides and separates, nor can there be one and the same power of opposites taken according to act. But if the difference be taken as a completing act of the act of the power of the genus and a determinative [one], thus the difference coming to the genus and the power determines the genus into a species, and constitutes the species. But if the form from which the difference is taken be considered in itself according to that which it is, it is the same difference which divides the genus and constitutes the species. But nevertheless according to reason the dividing difference is prior to the constituting difference: because it is necessary that the difference first go out through the

division which it makes from the genus, before, by coming to the genus, it constitutes the species.

But this is more easily known if examples are subjected. For all *per se* differences are of this kind:

nes sunt hujusmodi, animatum, inanimatum, per quæ dividitur corpus : sensibile, insensibile, per quæ dividitur vivum : rationale, irrationale, per quæ dividitur animal : mortale, et immortale, per quæ dividitur rationale animal, et sic de omnibus aliis quæ a formis substantialibus sumuntur, et sunt notiones ejus quod est secundum substantiam, etiam illæ eædem sunt constitutivæ : because that which will be of the animate sensible, so that the animate sensible is determined by the act of being, will be the constitutive difference of animal: for animal, by substantial definition, is an animate sensible substance, while plant is an animate insensible substance, but stone is an inanimate insensible substance. But that difference which is mortal [and] immortal, and rational [and] irrational, are indeed divisive differences of animal: because through these we divide the genera of animals into species by two successive divisions thus: of animals one is mortal, another immortal; one is rational, another irrational. Through these, therefore, the species of animal receive division. But indeed these same differences which by their opposition are called divisive of genera, are also completive and constitutive of species, when one of them is taken as a complement of the power coming to the genus: for then since the compos-

ite from power and act is complete and perfect, the species thus constituted is complete. For we divide first this genus which is animal by the rational and irrational differences, partitioning the power of animal into two: and again we divide rational animal by opposite differences, namely mortal and immortal, and by the same differences we constitute species of animal, because the difference which is rational joined with that which is mortal, are constitutive of man, when joined with the genus which is animal. For man, according to the definition which says the substantial being, is a rational mortal animal: but the opposite difference which is immortal, joined with the rational animal, is constitutive of God according to that which-

the Stoics spoke concerning the gods. Whom they also define, that the gods are by nature the best, as Socrates says, by nature animals, in mind rational, but in time eternal. But those differences which are called irrational and mortal, when joined with the genus, are constitutive of the species of irrational animals, such as of the ass, and of the lion, and of other brute animals.

But although it be more clear to see in the lowest subaltern genera, nevertheless the highest differences and those of the highest genera behave in the same mode, as the differences through which substance, which is the most general, is divided: as if we say that those are the differences by which animate substances differ from inanimate ones, when it is said: of substances one is animate, another is inanimate:

or, taking those not proximate, we say that of substances one is sensible, another insensible: for those same ones will be constitutive of the lower species: for the animate and sensible difference, gathered and joined to substance as to a genus, like act to power, perfect animal, which is a species of substance: for animal, by definition, is an animate sensible substance. For although substance is sometimes divided through corporeal and incorporeal, nevertheless it is not a proper division: because the corporeal is properly mathematical, which properly speaking is not substance: and therefore here we do not use such a division. But we call animate and inanimate body [as] differences.

Some attack [this] through that which Aristotle seems to say in the book *On the Soul*, that the parts of certain ringed animals are animate, and that they do not recover, the cause being because they do not have organs of nourishment in the parts, such as mouth, and stomach, and universally those things through which the digestion and egestion of food occurs: nevertheless those parts are not animals. Therefore to be animate [and] sensible does not seem to be animal:

which is against those things which have been said. But this objection is worth nothing at all: and if it were worth [anything], it would be natural, and would do nothing toward the proposed intention. For there is that which is animate sensible simply, and there is that which is animate sensible according to something. Animate simply indeed is that whose entelechy is

the soul, through which flow virtues or particular powers particularly into the members, operating life and movement and sense: and to be thus animate is [to be] animal. But animate according to something is that in which sense and movement is through a spirit and a flow from the soul, which when it expires, sense and movement fail. But the cause of expiring is because they do not have organs refilling and restoring the spirit. But spirits are restored through nourishment in organs operating in nourishment: and these, because they are not animate except according to something, therefore they are not animals. Therefore, as for the animate which is animate simply, nothing prohibits it from being the constitutive difference of animal.

Avicenna also seems to attack this difference which we called "mortal", saying that it receives its name from privation not only according to the name, but also according to the thing. But privation is not a form. Since therefore every difference be taken from some form, it seems that mortal is not a difference. But to these things Avicenna himself seems to respond, that those things which are assigned here for differences are put for the sake of example: and there is no force [to the argument] concerning the name, provided that through the names the things are designated in whatever mode. But it must be said otherwise, that mortal is said in two ways. In one way indeed it says an act in matter conceiving the privation of the same act according to potency: and thus mortal is a substantial form, and the notion of

that which has the potency for dying: and thus called mortal, nothing prohibits it from being a difference, when through such a form it is compared to its opposite or disparate according to the same form.

pared. It is also called "mortal" simply, in which there is the privation of the power for perpetual life, and thus a difference is not taken from it. But when "irrational" and "immortal" are called differences which are imported in the name through privations, the positions of the opposite forms from which the differences are taken are understood. And because we do not have names for these, therefore it is necessary that we signify them by the privation of their opposites.

From all these things it is clear, that the same ones according as they are differences, taken in one way and another, and compared to another thing, are both constitutive and divisive: and all, whether divisive or constitutive, are called specific [differences], which when joined with their genera make species both subaltern and most specific. And of these differences, because they are *per se* and substantial, there is the greatest need for the divisions of genera which are divided into their particular powers. And these are also very useful for the definitions of species, which collect all such [differences] from the first even to the last with the genus for the full definition of the species, which definition would not be, unless it gathered all essential things through a due order from the first even to the last end ( in which there is the complement), according as the

thing proceeds from the first inchoation of its being even to the last complement. But as for these differences which are inseparable according to accident, because they are not of the being of the thing: and as for those which are separable according to accident, which are further from the being of the thing than the inseparable ones, we do not use them for the divisions of genera and the definitions of species: and therefore they are not of our intention here, except those which are *per se* and substantial.

To these things nevertheless some object saying, that the being of a mortal thing is immaterial, which on account of the mixing of contraries is in a continual alteration of passions. But every passion made greater, casts out from the substance: on account of which Aristotle says that health is not the same

in the morning and in the evening. It seems therefore that even the being of a thing is intended and remitted, and similarly the essential principles of a thing, and thus those which have been mentioned do not seem to be differences: because according to being they are not equally participated in by those of which they are as [differences] of subjects. Further toward the same [point] they induce, that if the being of a thing stood according to one and the same being entirely, then according to being they would not receive the designation of past and future, but of the present only. And this present would be an instant and not moving itself: and thus we could not say, "man was", and "man will be", but only

"man is". And to this indeed it must be said, that the being of a thing is considered in two ways, if [it is] according to the comparison to that in which it is and whose being it is, and according to the comparison to that by which it is formally constituting it. And in the first way indeed the being of the movable is movable, and the being of the temporal is temporal: and this being is not altogether the same morning and evening on the part of that in which it is. But so it is both movable and temporal, casting out something and receiving something continually according as it is determined to the past and to the future. But in the second way, being considered is simply the act of the essence: which essence, I say, according to itself is incorruptible and ungenerable: neither is it generated, nor corrupted, except according to accident, and thus being is immobile and intemporal. But differences, since they are said from the act of differing which they make, are taken from the being which thus has both these, namely that it is the act of the essence in that which it is, and therefore they are designated in both ways. This therefore is what the ancients said under a compendium concerning difference, that since three species or three modes of difference are considered, and since some of these are separable, others indeed inseparable: and again since of the inseparable ones these are *per se* or substantial, those indeed *per accidens* taken from accidental forms: and again of those which are *per se* differ-

ences, some are according to which we divide genera into species, but others according to which those genera which have been divided are specified: as when all *per se* differences of this kind are in the predicament of substance: animate, inanimate; sensible, insensible; rational, irrational; mortal, and immortal, which are divisive of genera: that indeed which is the difference of animate and sensible, gathered with substance, is constitutive of animal, according as animal is a subaltern species: for animal is by definition an animate sensible substance. But that which is the mortal and immortal difference, and rational and irrational, are divisive differences of animal according as animal is a subaltern genus: for through these we divide the genera which are animal, and rational animal, which is a circumlocution of a subaltern genus which is contained under animal. We divide, I say, those genera into species, either subaltern or most specific. But indeed these same differences which are said to be divisive of genera, are also said to be completive and constitutive of species: for we divide animal as a genus by the rational and irrational difference, and again we divide rational animal by the mortal and immortal difference: but the same [difference] which is the rational difference, and the mortal [one], being divisive indeed of animal, being joined to the genus, is made the constitutive difference of man. But the rational and immortal [difference] joined with the genus, is constitutive of God, as Socrates speaks of the gods, and Apuleius says in the book *On the God

of Socrates*. But those differences which are irrational and mortal, joined with the genus, are constitutive of the species of irrational animals. So also are the differences of the highest substance, which are called animate or sensible, gathered to substance which is the highest genus, they perfect animal which is a subaltern species of substance. Since therefore the same differences taken in one way are constitutive, but in another way are divisive, nevertheless all are called

and are named specific: because they receive their name from constitution rather than from division, because division occurs for the sake of constitution. And of these differences there is the greatest need for the divisions of genera, and the definitions of species: but not of those which are taken according to accident, although they be inseparable. But much more we do not use for divisions and definitions differences which are separable, taken from separable accidents.

### CHAPTER IV — *How species abounds from genus through difference, and how genus has differences in power.*

With all things (which seemed necessary to be said concerning the multiplicity of difference) now having been held, now we must intend concerning difference according as it is one of the five universals, and according as the philosophers who are called Peripatetics intended concerning it. For these, determining or describing difference, say that difference is that by which the species abounds from the genus. Which they prove exemplarily at once and inductively:

because man, since he is a species only, and not a genus, has more than animal (which is the genus of man) [namely] rational and mortal, which are differences. For animal according as it is a genus, neither taken according to itself, is actually any of these. For neither is animal rational according to itself: because if according to itself it were rational or mortal, it would follow that every animal would be mortal, which is false according to those things which have been determined before. But when we say that species abounds from the genus by difference or differences, we understand that that which abounds by something, has that within itself by which it abounds both in act and in intellect: namely in such a way that the species having been posited within its essence, the difference is posited actually constituting the species: and that the species having been understood, the difference is understood, and is the principle of understanding the species: neither of which the genus does. For if the genus-

were to actually have the difference, it would have all things which are exacted for the position of the species. And if the difference according as it is the principle of understanding the species, were in the intellect of the genus, it would not be necessary, that in the definition of the species the genus having been posited the difference would be posited: because it would be understood in the name of the genus, and it would be a nugation, when it were posited in the definition with the genus. Therefore difference in neither act nor intellect is in the genus: but in the species it is both

in act and in intellect. Therefore difference is, by which the species abounds from the genus, or overcomes the genus both in act and in intellect. But it abounds in act, so that the species may be in act or in effect: but in intellect it abounds, because difference is concerning the intellect of the species, nor can it be understood in act except through difference without which it is not understood except in potency.

But by such an assignation neither common difference nor proper difference can be defined. For these, as is manifest through the afore-said things, do not constitute simply, but according to something, or according to the being of an accidental form: and therefore they are not in the act of constitution into specific being, when they are in the species: but they are in it as in a subject, which is not constituted from accident, but rather constitutes into being the accident which is in it: and this is that which Avicenna says, that a subject is an entity complete in itself, which is the occasion for another, this is, to the accident existing in it. Also these differences, namely the common and proper, are not concerning the intellect of the species, but the principle of understanding it: because accident, as Aristotle teaches, does not define the subject, but rather the subject falls into its definition in place of the difference, and not conversely: as is clear when the snub is defined, and it is said that it is the curvature of a nose: For curvature which is formal to the snub, is as a genus ambient both of curvature in a nose and in a shinbone. But a nose having

been posited in that definition, contracts curvature to snubness. Therefore since a difference in definition is contracting the genus and determining to the species, it is clear that the subject is as a difference: and curvature which is formal, is in definition as a genus: and this is therefore, because accident is caused from the subject, and not essentially from that which formally is in it, by this that it does not have proper essentiality from itself, nor also is it an entity properly speaking, but in this it has entity, because it is either the measure or disposition or some other passion of an entity itself. It is plain therefore, that the assignation convenes neither with the common, nor with the proper difference, but only to that which is most proper and *per se*, and through the essence of a difference.

But if it is asked, since the proper is a quality of the species, but the accident the quality of the individual, just as the difference is the quality of the genus, why the difference which is one of the five universals is rather taken from the quality of the genus than from the quality of the species or of the individual, especially since one could be compared to another through the quality of the species and of the individual, just as through the quality of the genus. It must be said that difference in the true act and effect of difference could not be taken, unless from that which truly makes to differ, but it truly does not make to differ, except that which makes it other according to the substance of form, because those things which differ through matter do not

differ through true being: since, as Boethius says, species is the whole being of individuals. Therefore since common and proper difference do not make [it] other, a true predicable which is difference, which is one of the five universals, cannot be taken from them. But there remain simply proper or accidental things, and according to something making to differ those things which according to themselves are compared to each other. But a *per se* and substantial difference according to the respect which it has to the subject, is a form determining matter: and according to this it is not a predicable, but rather according to the respect which it has to the genus, which it divides and determines and has to deduce to the species. And thus a division

according to the intellect it is prior in it than constitution: because by dividing it determines to the species, and constitutes it. And therefore through the act of dividing (which is prior in it) it receives the name of difference which is one of the five predicables, as has been said. Thus therefore it is clear that the assignation is convenient, by which it is said that it is the difference, by which the species abounds from the genus.

But these things having been thus determined, the question is, from where species have the differences by which they thus abound from the genus: for they will have them either from themselves, or from nothing, or from the genus. And if indeed they have them from themselves, then the same thing is constituting itself by itself: and thus the same thing will be the maker and

the made, and the formed: because the difference is the maker and former and constituent of the species. For if the species has the difference from itself, then it is necessary that the difference according to itself be the species, and the species according to itself be the difference: because otherwise the species from itself and according to itself would not have the difference: for to have according to itself, and to have essentially, is the same.

But if it were to have the difference from nothing, then it would follow that something becomes perfect in being from nothing: which all Philosophers have denied. It would also follow, that the difference would be the first created entity, which alone is made from nothing. For it is made not having presupposed some other thing through the intellect. This, however, is false, because the difference having been presupposed some other thing is presupposed according to the intellect, as is clear in this which is rational: for the rational having been presupposed, the living is presupposed, and substance, and entity. It is clear therefore that it does not have it from nothing.

But if it were to have them from the genus, then since there is no difference, except through opposition, because opposition is the cause of differing, it follows that it has opposite ones in the genus: for there is no reason, that one difference of one species be in the genus, and not another opposite to it. Furthermore, however, opposite things are by nature born to become

around the same thing. If, however, it is so, then it follows that opposites are simultaneously in the same thing: which is impossible.

But the ancient Peripatetic Philosophers solve this saying, that in power all differences are posited under the genus in the same genus, and from the power of the genus they are in the species, but in act they are not simultaneously in the genus itself. Nor is it inconvenient, as they say, for opposites to be in the same thing in power. And thus they say that from this it does not follow, that something becomes from nothing: for from something which is in potency, something which is in act becomes. Nor also does it follow that opposites according to act are simultaneously in the same thing.

But this determination of the Peripatetics seems to have many difficulties. For the genus seems to have opposite differences simultaneously in act. For these are actually true, *animal is rational*, *animal is irrational*: just as these are actually true simultaneously, *man is white*, *man is black*: nor would they be simultaneously true unless animal were actually rational, and animal were actually irrational: it seems therefore, that in this genus which is animal, there are simultaneously in act opposite differences, which are rational and irrational.

But it is still asked, granted that opposite differences are in one and the same genus in power and not in act, what sort that power is: whether it is material, or active, or formal, or final; for it is necessary, that it be according to the power of

some cause. For if it is material, then it would be necessary that it be led out from it through motion or through mutation: because, as Aristotle says, passive or material potency is the principle of transmuting from another according as it is another: and then it would be necessary to assign what would be the mover in leading out this sort of power to act: because, as Aristotle and Averroes wish, nothing is in potency in something, unless it is led out by one motor from it-

from it to act. But what may be the mover to this, that the material power of the genus should go out into act, has not been assigned by the Peripatetics. Afterward that which is in material power, is as in the imperfect. But the imperfect cannot be the cause of the perfect. But difference is the cause of the perfection of the species. And thus difference cannot be in the species from the power of the genus (as it seems) even if it be said to be in the genus in power. Furthermore, however, the Peripatetics say that differences are in the genus in power. It is asked therefore, whether it is the same to have differences in power, and to have differences in potency? For if this be said to be the same, then it seems that differences are in the genus just as forms are in matter. But matter is in no way the cause that form is, or that it is in act: and thus it seems that the genus is in no way the cause that difference is, or that it is in act. Furthermore it is asked, whether difference is in the genus through this, that the genus has differences in power? For if difference be in the genus, since it is the same to be in the genus and

to be under the genus, then the difference will be a subject of the genus. But the subject of a genus is the species. Therefore it will seem that the difference is a species, which is entirely false. Furthermore if the difference were in the genus, it would be as participating the genus according to essence and intellect, which is entirely absurd: because then the difference would be composed from the genus and some other contracting thing, which contracting thing could not be unless it were a difference, and thus of a difference there would be a difference: and then the same thing would follow concerning that difference of a difference, and this would go off into infinity.

But if it is not in the genus, then it seems false what has been determined in the things previously held, because the ten genera are as the first ten principles of things: for there cannot be a first principle in the order of things, to which all things of that order cannot be reduced: for the differences of substance are substances, because they perfect substance: and yet they cannot be reduced to substance as to the first genus, as seems through the induced reason.

If perhaps someone says, that they are in the genus in power according to the power of the formal cause, then it will follow that the genus is the form of the difference: which is entirely false, since Porphyry says that the genus is as matter, and the difference as form, but the species as constituted from matter and form: Furthermore, however, if the genus were as form, the genus would be as an essential quality. It would there-

fore be predicated in the *of what sort* (quale), and not in the *what* (quid), which is against those things which have been pre-determined concerning the genus.

But that they are not in the genus as in the power of the final cause, is proved from the same thing: because in their natures form and end are the same according to the thing, although they differ according to the reason of their causality, because the end is according to that which the motion of the mover rests in it, but the form according as it gives being to it, which is according to form.

Let it be asked, therefore, if they are in the genus according to the power of the efficient cause? For some seem to say this, because this question which the Peripatetics made, from where species have differences, seems to ask nothing except concerning the efficient cause. For if it is granted that differences are in the genus as in material power, it still remains to ask, from where or by what mover and leader-out of the difference from the genus to act the species has differences, and thus it seems the difference is in the genus according to the power of the efficient cause. If, however, this is granted, it will seem that an inconvenience happens: because the power of the efficient is complete for acting by this, that it acts toward the species and form by which the agent itself is in act. Therefore the genus similarly acting toward the act of the difference, is in the act of the difference. And thus the genus as genus has differences in act. And the

inconvenience said above follows, that namely in the same thing there would be opposites in act, which is absurd. It seems therefore, that in no way are the powers of the difference in the genus in power. If perhaps someone should wish to say, that they are-

in the genus just as in seed or in a seminative cause or seminal cause: for Aristotle says that seed through the seminative virtue which is in it, in the spirit of natural seed (besides the substance of the dry and the moist which are in it as matter) is the moving cause, or from where, or the efficient [cause]: and that the genus has these two in itself, namely the subject, which indeed is formable through the difference, and the formative virtue of the difference, by which the genus itself is formed toward the species. Let it be asked concerning the formative virtue itself, from where it may be in the genus: for the genus does not have it from itself, according as it itself is the first subject: for according as it is a subject, it is not formative, but formable, nor can there easily be seen some other thing in the genus, from which it might conceive this sort of virtue. Furthermore, granted that such a formative virtue is in the genus, let it be asked from what it forms the difference which it produces in the species: for it does not form it from the formable species, which is the substance of the genus, because thus the formable and the forming would be the same, which cannot be. But if it forms from another, let it be asked what that is, and in what way it is in the genus: for this and this sort of thing is very

difficult to find, and by the ancients they seem not to have been touched through a sufficient determination.

To all these things to be determined it must be pre-noted, that as Averroes says, the genus is not matter, but a general form, both confused, and indistinct, and diffused in matter not determined through form: which diffused and confused form some call the inchoation of form: on account of which inchoation of form diffused in matter matter itself was called by some ancients the place of form, in which forms lie hidden: and therefore they made the latency of forms a principle, as was said in the *Physics*, and this was the saying of Anaxagoras: on account of which also Aristotle and all the Peripatetics said that all forms are led out from matter, and that they are not from an extrinsic giver.

Since, however, it has already been proved before, that form is not predicated according as it is the form of matter, nor also according as it is the form of the whole, but it is predicated as it itself is the notion of the whole being, either existing in potency, or existing in act, it follows necessarily that the genus is the form of the whole existing in potency, and that the name of the genus and the thing is predicated according as the genus through the abstraction of the intellect says the notion of the whole existing in potency. But the difference says the notion of act determining the whole being, according as it is in an undetermined act: because otherwise it could not be predicated of the species. But the species

says the notion of the whole thus determined and distinct, and therefore because it says that which is distinct and determined, it is predicated in the *what* (quid) and not in the *of what sort* (quale). But similarly also the genus, because it says a distinguishable *what*, it is predicated in the *what* and not in the *of what sort*. But the difference, because it says that which is actually distinguishing, and not distinguishable according to potency, nor distinct according to act, therefore it has to be predicated in the *of what sort* and not in the *what*. But if the notion of the difference were a name, which would be said to distinguish in potency, and not actually distinguishing, it would be predicated in the abstract and not in the concrete, and it would be said that man were rationality, and not rational, which is absurd.

We shall say therefore, that the species has difference from the genus, and difference is in the power of the genus just as distinction in the indistinct confused: just as color according to formal being is in the light indistinct and confused of the diaphanous or perspicuous, which is distinguished not by some other certain distinguishing thing, but the formal being of that same light by a diffusion determined to the upper part of a determined body: on account of which it is said, that the light itself both from itself and of itself forms colors according to formal being which is in them. And this is the determination of Avicenna, as can be gathered-

in the *first philosophy* of his. On account of which it is said that the genus has differences in potency [potestate] rather than in potency [potentia]: because potency [potentia] is indifferent to being and not being, but potency [potestate] is a potency standing through the inchoation of an act. And this is the cause, why between the genus and the difference when they are gathered in one and the same definition, there is not a congregation of diverse natures: because if this were so, the definition would be many and not one. Nevertheless we do not intend to say this, that the genus and differences be not diverse natures. But we intend that they are not natures of diverse genera, just as substance and accident, quantity and quality are: for they are natures of the same genus ordinable to one and the same just as potency and act. Nor could anyone say that the act of this potency were the act, and not of another, unless through something the act were inchoated in potency: neither would this potency inchoate this act, unless something similar to the act were inchoated in potency.

Thus therefore even by such a potency [potestate] the genus has differences in potency [potestate]: and it is not inconvenient thus to simultaneously have opposites, because opposites do not repugn themselves, unless distinct, not confused: or since of all opposites there is one root out of which they arise, it is not inconvenient that they be thus simultaneously in the same thing: on account of which it is generally true that one is the genus of opposites, just as in the *Phaedo*

Socrates says that one is the head of all opposites. And thus Empedocles says of many german heads in the first confusion to have been without a cervix: for a cervix distinguishes german heads, so that one is of one, and another of another. In this mode therefore differences are in the potency of the genus.

But what is asked: according to what cause that potency [potestas] be, it must be said, in truth it is, just as also Averroes says that it is of a formal confused cause in the confusion of matter: which nevertheless is similar to the potency of matter, which matter is not matter through this that it is the bare subject of form denuded from every form, but rather in matter to form through the inchoation of form in it. And therefore it is said that matter desires form, just as a female a male: not into as much as she is a female, but into as much as she is imperfect. Nor is the imperfect (supply that which is impossible to perfection) but the imperfect potent to be perfected: nor can it be perfected, in which there is not an aptitude to perfection. But that aptitude is necessarily something of perfection, because otherwise it would not appetite to perfection. But through this that it is a simple subject not in potency to form, but in the composite it is the other of the components. Therefore the genus which is the notion of existing in potency, according to the whole formal being signifies by its own name itself, just as it was said to have differences in itself in potency [potestate].

And what is objected concerning the potency of the end, is already clear to be solved: because just as the form and the end is the same, thus also one is the potency of the form and of the final being: and therefore the form of the end is of the desire which matter has when it desires form, not only as of imperfection, but according as distinguishing and determining it is the cause of the perfect.

But what is objected concerning the potency of an efficient cause, and concerning a seminal cause, is very convenient: because through the confused inchoation of differences they are as if seminally in the genus. And therefore, as was said, they pertain to the same according to nature with the genus, and not to the diverse. But the virtue which from an effective generator is in the seed, (and is called formative in [the] physics), has something similar even in the genus: and this is the light of the active intelligence, which acts all forms: for by the virtue of that light (which by spiritual not corporal expansion leads the confused to the distinct through distinguishing and determining) species.

actually it leads out the difference from the genus in the very being of the species: and in this way the genus has in itself something of the virtue of an efficient [cause]: on account of which also above in the treatise *Of Genus* the genus itself was assimilated to a father. Thus therefore the genus is understood to have differences in power.

And that which is asked, whether difference is in the genus, has already been clearly solved. For since genera are the first principles of things, it is necessary that differences be in the genus, if they are not in the genus just as genera, or species, or individuals. And generally speaking they are not in the genus, as participating the genus itself through essence and intellect, but they are in the genus, as in the confused principle of their inchoation. For in many ways things are in a genus: for some things are in a genus, as coordinated under the genus by way of participating, and of that which is participated: and in this way genera, and species, and individuals are in a genus. Some things are in a genus as a way to the thing of the genus: and thus motion and mutation are in a genus. But some are in a genus as principles of the thing of that genus, as form and matter are said to be in substance as in a genus. Finally some are in a genus as in the principle of their inchoation, and these are in the genus according to power, and not participating the genus according to act: and thus the differences of any genus are in the genus. Some also are in the genus as principles, from where the natures of the genera flow according to the imagination, as the point and unity are in the genus of quantity. Through those things which have been said, it is clear that difference is a simple act, constituting the species with the genus, and in what way in power difference is in the genus, and in what way the species has difference as forming, but the genus is in the species, as the formable or formed imperfect: and

thus it is easy to solve all things which have been asked, or doubted.

## CHAPTER V

*How difference is defined according as it is a universal predicable of species.*

Having had in what way difference abounds from the genus in species, and in what way difference is in the genus, and in what way species acquires difference from the genus, it remains to say in what way, as a universal predicable of species, it is defined. For thus considered it is defined in this way. Difference is a universal which is predicated essentially of many things, and differing in species in that which is of what sort (quale). For when it is said, that it is a universal, Avicenna says that this in this definition is posited as a genus. For since each of these five is a universal, universal contains these five as a genus: and this is first to be posited in the definition of each of these five: which however the more ancient Peripatetics did not do, because when they posited that it is predicated of many, they said it is understood that the genus is universal, because nothing is predicated of many except a universal, because a universal is that which is in many and of many: and therefore when they posited, *it is predicated of many*, they understood that it would be a universal, and that a universal would not need to be posited explicitly in the definition.

But this which is said *essentially*, is posited, as Avicenna says, for the exclusion of accident,

which according as it is a universal, is predicated of many differing in species, and is predicated in the *of what sort*: but it is not an essential predicate, which is *per se* in the subject both in act and in intellect, as is difference. But Aristotle says that *of many things differing in species* is posited for the exclusion of species, which is not predicated of many except differing in number, by this that its community is not compared except to individuals. But the first respect of comparison of difference is not to individuals, but to species: and therefore it was not necessary, that it be defined to individuals, but to species. For to the genus

(as it is a genus) as it is a universal, it could not be defined: because according as it is a universal, it does not contain the genus, nor is it contained by the genus except only in power, and therefore it cannot be predicated of the genus. Since therefore it ought to have a special mode of predicating, it was necessary that as a predicable it should have respect to the species: but it could not be a predicable of one, because thus it is an individual: it was necessary therefore that it be a predicable of many things differing in species. Furthermore, however, it could not be defined as a predicate convertible with the species in the *of what sort*, because thus it would be a proper [attribute]: nor as a predicate convertible in the *what*, because thus it would be a definition or a synonym. It remains therefore, that it will be defined not as convertible, and thus it is defined as a predicate of many things differing in species.

Because truly also the genus is predicated of many things differing in species, therefore it is added that it is predicated in the *of what sort* (quale). For the genus is predicated of many things differing in species in that which is *what* (quid). This therefore was the necessity on account of which the ancients thus defined difference. And so that these things may be better understood, it must be known that *of what sort* differs from quality in this, that quality is an accident according to which another is said [to be] *of what sort*: but *of what sort* is said of a subject formed by quality.

Whence a predicate in the *of what sort* is said that which is predicated as it is in a subject, because otherwise it could not be predicated of a subject. For nothing can be predicated of a subject, unless it is in the subject, and unless it be accepted and signified according as it is in the subject, it is not predicated of the subject nor can it be predicated. Whence rationality, or animality, or humanity, or risibility, or whiteness are not predicated, but rational, and animal, and man, and risible, and white are predicates of their subjects. Whence speaking logically three *of what sorts* are composed. A species with a difference is an essential *of what sort*, and is said *of what sort* according to the difference and not according to itself, and the *of what sort* itself is the difference existing in the subject. But the second *of what sort* is the proper, which is said *of what sort* according to the quality of property, that is, of the proper. The third is the *of

what sort* of an accident, which is said *of what sort* according to the quality of an accident. Such therefore is the explanation of this sort of definition.

But this is manifested still better in examples: because rational and mortal which are differences of man, having been taken from the qualities which are rationality and mortality, are predicated of man, not in that which is *what* (quid), since in no way do they say *what* is formed by such forms, but rather they say the forms forming and distinguishing that which is *what*: for form subjectively and in formability is not a *what*, but an *of what sort* or a forming quality, in no way formable, because it is act and therefore cannot be formed: for only potency is formable through act: on account of which also the species by a quasi potential aptitude is formed through the proper, as will be had in the following things: and the subject according as it is complete in itself and the occasion for another existing in it, through that which is the occasion for another, holds itself potentially to it, and is formed by an accident according as it is of this sort. This therefore is the true cause according to the Philosophers, why it is competent for differences to be predicated not in the *what*, but in the *of what sort*.

Of which there is still a further manifestation, because when we are asked by someone inquiring concerning the nature and subject of man and saying, *what is man?* it is convenient for us to say in responding to this question, that man is an

animal: for animal is the next substantial subject, not forming, but formable by the form of man in man. And therefore man is in animal as in a potency formable to man: and when it is moved from this potency to form, it is animal before it is man, as Aristotle says. But if the inquirer should proceed further saying, *of what sort of animal is man?* we conveniently respond to this question, that man is a rational mortal animal, signifying that the potency is distinct through this act, which is rational mortal, and-

is a form[ed man]: designating that a man in rational and mortal is not just as in the what of a potency and of a formable subject, but is in it just as in an act forming and distinguishing according to actual and formed and distinct being.

Which still could be manifested in a similar thing: for because art imitates nature, therefore those things which are in art, according to something are similar to these things which are in nature. To things therefore consisting out of matter in these things which have matter, or consisting out of such principles of their own composition which are in them to the similitude and proportion of matter, just as in these things which do not have matter, but are composed by two formal natures, of which one is proportioned to matter, and the other to form, just as a genus and difference compose a species: this is shown to us, which has already been said, just as is to see in a statue, or image, or idol. For in the statue of an idol the bronze out of which it is made, is just as formable matter, and in the bronze of the

idol there is in potency a form which gives to the bronze to be an idol or a statue: which is called a statue, because it statuates the image which we intend: that form itself, I say, doing and perfecting this is the figure induced through the artifice. Thus it is in these things which do not have matter, just as is common man taken in a species, not taken as this and that which are out of matter: but a common man which is in many and is special or taken in the community of a species, consists in its composition according to a certain similitude and according to a certain proportion, although according to truth it be not composed out of matter and form, but the whole be taken in formal being, because otherwise it would not be common, nor predicable of any thing according to the true notion of a predicable: for according to a certain similitude and according to a certain proportion to matter the genus is in it as the first subject potentially formable and distinguishable to man, and the difference is in it as forming and distinguishing to the species of man, the whole essential thus perfect and constituted, which is a rational mortal animal, is man according to species proportionally, just as in artificial things the whole constituted out of bronze and figure was a statue according to an image, the similitude of which it statuated before the eyes of those intuiting it.

This therefore is the definition given by the ancient Peripatetics concerning difference, and, as was said, to be declared and understood. And therefore there is no question, which certain ones

ask, whether namely thus in matter (which is called a genus) there be a disposition to form and necessity, just as there is in natural matter to form, and in artificial matter. Nevertheless this could be asked, if a genus truly were matter: but now this is not said, but only because according to a certain similitude and according to a certain proportion it is compared to matter, in this that man in the potency of inchoation is in animal, and just as in a subject which according to that which it is, is formable by the act of man. For disposition and necessity are not except in matter, which subject to mutation proceeds through agents to the being of the generated. Such a question therefore is none.

Nor is a species said to be composed out of a genus and difference as if out of two diverse things, of which either one be a part of the composite, because thus a definition in which a genus and difference are posited, would not be one but many. And if it were thus, neither by itself would be predicable of a species, but only the whole simultaneously composite would be predicated of a species. For a genus speaks the whole being of a species, but in potency, as was said: and the name of a genus is the notion of the whole being of a species in potency, because otherwise it could not be predicated of a species. And difference taken as what sort not as quality, speaks the whole being of a species, but in act: and according as it is the notion of the whole being in act, thus it is predicated of a species: and a definition speaks

the whole being in potency and act, and therefore it is predicated convertibly.

But difference, as Aristotle says, since it is general, must be reduced to the non-convertible predication of a genus, as is proved in the following.

This therefore is what the ancients said concerning difference according as it is predicable of a species, which indeed can be said under a compendium, that the ancients determining or describing differences say, that difference is that by which a species abounds from a genus, having difference in itself both in act and in intellect, which the genus does not have except in power: for man has more than animal rational and mortal: which placed conjunctively perfect the constitutive difference of man. For the genus animal itself according to itself is none of these in act and intellect, which is evident from this: for it is asked from where a species may have differences: it does not have them from the genus, so that they be in the genus in act: for neither does a genus have opposite differences: for opposites are not in the same thing simultaneously in act. But concerning this it is just as the Peripatetic Philosophers prove, that a genus indeed has all differences under itself in power, but in act none: as if nothing inconvenient happens, because thus it does not follow, that something is made out of those things which are not, if it were said that it had differences from nothing: nor does it follow that opposites are in the same or about the same,

but that which is made is made out of those things which are in the genus in power.

The Peripatetics also define in this way on account of those things which have been said: difference is a universal which is predicated of many differing in species in that which is of what sort. For rational and mortal are predicated of man, not in that which is what, but in that which is of what sort. For if we are asked by someone *what is man?*, it is convenient to say or to respond *animal*. But if inquired by someone *of what sort of animal is man?*, we respond conveniently, *that he is a rational mortal animal*: because thus we assign the form which gives the species.

For to things consisting out of matter and form in nature or art, or to things consisting to the similitude and proportion of matter and form having their constitution in logic, just as a statue is out of the matter of bronze, and the form of a figure: so also common and special man who is in many, indeed consists from matter similarly proportionally, namely from a genus, and from the form difference: which nevertheless are not composed as divided parts, but are called essential parts, because in two divided ways they signify the being of a species, namely in potency, and in act: but this whole which is a rational mortal animal man, is a species, just as there in art the whole constituted out of bronze and figure, is a statue.

### CHAPTER VI. *On the doubts against the definition of difference, and the errors of those solving badly, and on the true solution of all.*

These are the things which the ancient Peripatetics handed down concerning difference according as it is a universal predicable of a species: and there are many doubts and errors concerning them. Aristotle and there Averroes in the commentary expressly say and prove, that the ultimate constitutive difference of any species is convertible with it, so that it is not fitting for it to be predicated except of that species. Therefore that difference is not predicated except of that species: therefore it is not predicated of many differing in species, as it seems.

But Boethius says this same thing in the book of *Divisions* saying, that if there were not a penury of names, in any definition we would not use except two terms, namely the name of the genus, and the name of the ultimate difference, which restricts and narrows the genus to the species. If therefore that difference then were convertible with the species, since the genus cannot be the cause of this kind of convertibility, it remains therefore that

such a difference would be the cause of convertibility. It follows necessarily, therefore, that it is convertible: therefore it is not predicable of several things differing in species.

Averroes says this, stating that all intermediate terms between the genus and the ultimate difference are a circumlocution of the proximate genus, which circumlocution would not be

needed if we had the names of the proximate genera. Moreover, this is inevitably proven by reason as follows: for either the ultimate difference is convertible, and proper only to that species, or it is common to that species and to others. If it is convertible, the proposition is established. If, however, it is common to that and to others, then that species does not differ from another species, but agrees with it. But what is a principle of agreement is not a principle of difference: therefore that was not the ultimate difference. And if it is said that this difference has another difference by which it differs, then I ask again concerning that difference, whether it is common or proper: and the same follows as before, and this will go on to infinity: or it must be said that the ultimate difference is proper, and belonging only to that species which it constitutes. Therefore, not every difference is predicated of several things differing in species: and thus the introduced definition seems to be faulty.

Furthermore, if everything that differs, differs by a difference, let it be asked by what difference a difference differs from a difference. For if it differs by another difference, then this will go on to infinity, because one would ask about that difference just as about the first.

To this also some seem to respond that, in the division of genera by differences and the constitutions of species, the situation is such that the lower the species are, the more certain they are; that is, the most certain species are those which are called the most special, and the higher the

differences by which the division is made, the more certain they are. And therefore the first differences dividing the most general genus are more known than those dividing a subalternate genus: so that finally the differences of species are known and named in few cases, although they are most known and certain. And because the first general differences, known and certain, are predicated of several things differing in species, therefore it is said of all with a logical probability, for which it is sufficient that it be true in most cases, that a difference is predicated of several things differing in species. But this response in philosophy is highly to be ridiculed, that this should be determined generally by definition, the contradictory of which is convicted of being true. For it is concluded of necessity that a certain difference is not predicated of several things differing in species. For it is known and recognized by every philosopher that a definition ought to apply to all and only. Therefore, if difference is defined by being predicated of several things differing in species, this ought to apply to every difference and only to it, which is more properly a difference: and therefore this solution is ridiculous.

For this reason others say that there is a simple difference, and a composite difference. And they call simple that which consists in one alone, such as the most general differences which are corporeal and incorporeal, or the differences of body, which are animate and inanimate, or the differences of the animate which are sensible and

insensible. But they say that the ultimate differences constituting species are not sufficient for constitution except by the congregation of two or more. For rational alone does not make a species, unless mortal or immortal is added: and this was not the case in the higher differences, of which one alone joined to the genus makes and suffices to make a subalternate species. Therefore they say that those differences which are simple, constituting species with the genus by themselves alone, are predicated of several things differing in species. But those which are neither sufficient by themselves, nor constitute a species unless one is joined to another, are not only differences, but something similar to a difference. And therefore they are not predicated of several things differing in species, just as rational and mortal taken together are not predicated except of man. But this solution is still more to be derided than the prior one: because rational mor-

such things said of man are the circumlocution of one simple difference, which is a unique and simple act, of which there is one being which it perfects: and although sometimes there is no name for it, nevertheless in such cases it is allowed to feign names. Let us say therefore that that difference be called A: then the difference A will be predicated of only one species, and not of many differing in species, and then it follows that the definition is faulty as before.

On account of this others say, that when it is said, a universal is that which is predicated of many subject to it, this is said, not that it is predi-

cated of many in act, but that it has the aptitude that it be in many, although in act it be not except in one only, as the sun is one universal. Whence since a species is the subject of which this universal difference has to be predicated, they say that by aptitude it is predicated of many, although some difference be not in act except in one only species. And Avicenna recites this opinion, and it is altogether null. Which is immediately evident, because a certain species is not certain, except because a unique difference is constituted, which in no way has the aptitude that it be in another species. Therefore it is false, that it has the aptitude for this, that it be predicated of many differing in species.

Moreover Avicenna says again, that certain ones understand the said definition induced thus, that the sense is, that difference is predicated of many which indeed many differ in species: because they do not have from the constitutive difference, that they differ in number, but only in species. And then the sense is, that difference is predicated of this which is in plurality, of which each one differs in species from the other, and not that difference is always said of many species. They give an example just as when it is said, that every man strikes with a sword: for the sense is not, that any man strikes singularly with some sword, but whoever strikes, does not strike except with a sword: thus they say, that every difference is predicated of many differing in species, not that everything of which the difference is predicated be many according to

species, but that everything of which the difference is predicated, differs by some species from its opposites or disparates. But Avicenna says this exposition is extorted, and is not contained in the understanding of this speech by which it is said, that difference is predicated of many differing in species. For since a definition is given as a cause of becoming known, as Aristotle says, it ought fully to notify the thing defined. Moreover when it was said of the genus, that it is predicated of many differing in species, it was thus understood that it is predicated of many species. Therefore since Aristotle says that difference since it is general is to be collocated with the genus, it seems that it retains the same mode of predicating with the genus. And thus to be predicated of many differing in species, is the same as to be predicated of many species. Thus returns the same inconvenience which was said above or was induced.

But all these errors having been rejected, it must be said with Avicenna that difference has three things in itself, namely that it is a simple divisive, and through this it is a difference; and that it is simply constitutive, and this it has from that which is divisive; and it has thirdly that it is determinative to a certain species, and this it has not from this that it is divisive, nor from this that it is constitutive, but it has this from this that it is a certain special nature of a thing and a proper and essential form. That however it has from this that it is divisive, that it be a difference, is proved from this that division is separation. But separation is the cause of the difference of the separated.

And that from this that it is divisive it be constitutive, is proved from this, that division is from this that it separates, it contracts and narrows the separated from the ambit of the divided genus: and this is to constitute under the genus and the community of the genus. But that which certifies and appropriates, it can have from nothing. And therefore it is that the most general does not have differences except divisive, and the most specific does not have except constitutive. And that which is made proper, it has from its proper

nature, by which consequently it differs from others, and by this that that nature is not found in others; and that nature contains in itself as it were the power of a definitive term, because it is thus in such things, that the prior difference is always in the consequent, just as corporeal is in animate, and animate in sensible, and sensible in rational, like a triangle in a quadrangle. And therefore what is proper to one nature is not a difference in true name, nor is it of simple power: because although it may be a simple act, yet it is not of one simple power, but it is the power of all the others from which it flows according to order, as from primary causes. Therefore, what is said, that a difference is predicated of several different species, is to be understood of those which are true differences, of simple power, which simply divide, and by dividing constitute beneath the genus, and of these it is true. But those which certify and determine, are not true differences, but true ones by which something compared to another can differ. Nor are they differences of

simple power, but they are of simple power as a definitive term. And this is the opinion as much of Avicenna as of Alfarabi, and Averroes. And this is what Aristotle says: since difference is general, it is to be ordered with the genus. For that which determines to a certain nature is not general.

But as to what is asked, how a difference differs from a difference: it must be said that by itself, and there is no going to infinity, for all principles differ by themselves. And by this the solution of all the things introduced is clear. Nor can it be said, that it is general, as some say, because it is an essential part even of the species just like the genus. For from this it would not be ordered with the genus in the mode of predication in problems, but rather it would be ordered with the genus in the mode of differing.

From this, moreover, is clear that which Aristotle says, namely that the parts in a definition are 'in more', but the whole is 'in equally'. For there he teaches to hunt for a definition through division. But true differences are those which are divisive, as has been said. For a divisive difference, by the fact that it is divisive of the genus, is a part of the being of the thing in potency, and not in act: for being in potency is a part of being, and not the whole, and therefore any such is 'in more'. But the whole is twofold, namely explicitly the whole being, and collecting in potency and in act, and thus the definition says the whole being. Also it is called a whole that which has the whole being in itself virtually, because all preceding things are virtually in it, just as in formal causes

the ultimate contains all that proceed from which it flows, just as life has being and feeling has in itself being and living, and rational being has in itself both being and living and feeling, as has just been said before. And therefore also this is a whole which is 'in equally' with that which it constitutes: for although it may be a pure and simple act, yet according to essence all preceding things are in potency virtually and by causality, and they flow into the caused in it just as primary causes flow into secondary causes, as in the first proposition of the book *De Causis*.

From all that has been said it is clear that a difference has two immediate respects: one, namely, to the genus which it divides, and according to this with a division it is predicated of the genus thus, that an animal is either rational or irrational: for it belongs to the dividing thing to be predicated under division of that which it divides. The other, however, to the species which it constitutes, and of that it is predicated absolutely. Thus a man is rational. And these are its mediate respects to the particular, to which it does not respect except through the species which the particular itself participates in: just as when we say, this man is rational. And therefore it has no proper particular that immediately corresponds to it, as the genus and species have. And this is so, because it is taken from a form which according to itself belongs to the species and is common, and through the species it is of the particular participating in the species.

<!-- cap:1.5.7 -->
### CHAPTER VII.
*On the description of difference as it respects the genus.*

On account of the many comparisons of difference by which it has to be compared, both to the genus and to the species, it has many descriptions from the philosophers: although it does not have a proper definition, because every definition is from genus and difference: and therefore if difference had a definition, it would be necessary that it consist of genus and difference, and thus the definition of difference would be from difference, and this would go to infinity. Furthermore, since nothing can be defined properly except species, if difference had a definition in the true rationale of a definition, it would be necessary that difference be a species, which cannot be. Nevertheless, it can have descriptions from the end, or from the posterior, or from the effect, or from the comparison to those things to which it is compared.

Therefore, although it was described from the comparison to the species which it constitutes, when it was said that difference is that which is predicated of several things differing in species in that what sort it is, nevertheless still the Peripatetics describe this kind of difference through the respect which it has to the genus in this way, difference is what is naturally apt to divide those things which are under the same genus. For it is that (as has been said) which is predicated of

several things differing in species. For the proper effect of the difference receives the name.

The Peripatetics manifest this description of difference by way of introduction through examples: because rational and irrational, which are opposite differences, divide man and horse from each other, which are under the same genus which is animal: although a single form or difference which is taken from a form, by its presence and absence makes a mutation from being to non-being, or from non-being to being, just as also an animal is either rational or irrational: and thus when a division is made through contradiction, one difference is made through affirmation, and the other accepted through negation: nevertheless, because those things which are under the same genus are disparate, and each one of the dividing things is accepted in its own difference and form, it is necessary that the division be made by opposite differences thus: of animals one is rational, another irrational. For by these differences those things which are under the same genus differ from each other. For although, as Avicenna and Alfarabi say, irrational and other similar things understood privatively, or negatively, do not state differences in true name (because a difference cannot be signified except positively), nevertheless because we do not have proper names of differences, we posit one known difference, and we signify the other through the privation of the same, which is of the subalternate species which is posited under the genus.

But it must be very much noted, because we also said it before, that when a genus is divided, it is not divided except according to power, and not according to essence. For the essence of the genus, since it is simple, can be the whole simultaneously in all the things dividing it: whence the whole is in man, and the whole is outside man in the horse: and this is in the horse, because it is neither this something, nor here, nor now, but it itself is whatever, and everywhere, and always, just as we said long ago about the universal: for it is not this something through matter, nor here by the circumscription of place, nor now is it by the determination of time or temporal difference. And therefore the whole is in whatever, and the whole is outside whatever taken according to itself, which is proper to a simple nature. And although the whole may be comprehended by rational, when rational is conjoined to the conjunction of the species, and simultaneously with this the whole is comprehended by irrational, when irrational is conjoined to the same for the constitution of another species, since it does not have part and part in essence, nevertheless according as it is comprehended by irrational, it is not comprehended by rational. And therefore it does not follow, that animality comprehended with rational is the same animality according to being in rational, and irrational. For thus rational is transmuted into irrational, which Aristotle denies can be done. But this is for this reason, because animality is one inchoation of both rational and irrational,

and one and the same principle of inchoation in essence: which nevertheless as it is comprehended by one, is drawn to the being of the principled thing. And therefore according to this it cannot be comprehended by another: because according to part of its power it is in the other.

**[Objection].** And if anyone should object, that power or virtue is rooted in essence, and therefore it seems to follow, that in whatever the genus is according to its whole essence, in the same it also is through its whole virtue and power: **[Solution].** we say that this does not follow. For the essence of the genus is a simple nature. But power is not rooted in it according as it is a unique and indivisible essence, but rather in the ambit of its community, and therefore nothing prevents that, the ambit of community being divided, the simple essence remains undivided.

It must also be attended to, that although differences are in the genus in power, nevertheless according as they divide the genus, it is necessary that they be accepted in act by the dividing intellect: since the intellect would not divide, unless it actually accepted that by which it divides: but that by which it divides, is the difference, and thus it is necessary that the difference be in act, and the genus according to the ambit of its community be divisble in potency. But according as the genus is the principle of inchoation of differences, differences are in the genus in power. But from that power they are brought to actual being by the intellect when the power of the genus is divided by them.

Thus therefore it is understood what the Peripatetics say, that difference is what is naturally apt to divide those things which are under the same genus. For we said in the preceding things, that difference, by fact that it divides, contracts the genus, and places that which is accepted through division under the genus, and thus constitutes the species according to which the species is that which is placed under an assigned genus.

And therefore both those things which are under the genus are divided through the division of differences, and the genus itself is divided in one way and another. For the genus is divided, because the power is partitioned. But those things which are under the genus are divided, because they are separated through the division of differences (which they make from each other): but the genus is divided by the quantity of its community. But those things which are under the genus are divided by the separation of their opposition from each other.

This therefore is what the philosophers say who describe difference in this way, that difference is what is naturally apt to divide or disjoin through its opposition those things which are under the same genus: and they make this manifest by such an example, that rational and irrational divide or disjoin man and horse which are under the same genus which is animal: using the privation of reason (which is signified by irrational) in place of a common difference, which we are accustomed to name brutality. And this is evi-

dent, because if there were not any animal except man and horse, and capable-of-whinnying were the constitutive difference of a horse, we would divide thus, of animals one is rational, another capable-of-whinnying, and we would not make a difference by privation.

<!-- cap:1.5.8 -->

### CHAPTER VIII.

#### *Description of difference as it posits a difference.*

Furthermore, the ancient Peripatetics describe and assign the same difference through the respect, by which one of the differing things is referred to another according to the difference by which they differ from each other, defining it thus: Difference is that by which single things differ from each other. For those which differ, differ from each other by their differences. But single things have their own and proper differences, by which they differ from all others, in which there are differences. Moreover they prove this assignment in this way:

because those things which differ by opposite differences, and which arise from one and the same genus, do not differ according to genus, but rather agree in genus, since they participate in the genus equally in act and intellect: because those things do not differ in genus, except those which are in diverse genera either most general or proximate: and according to this that they differ in genus, thus it is the genus that makes the difference between them: and these are

those, of which there is not one nature in a proximate common [genus] which is the first subject formable and determinable to being through proper common differences, according to those things which through one and the same division of diverse differences go forth from one and the same genus: but those differ according to genus. And this is manifested through examples. For we humans are animals, and irrational beings are also animals. And thus we do not differ from them in genus: but 'rational' added to us humans as a difference disjoins us from them, and thus we have an essential difference from them, although we agree with them in genus. But on another part according as we agree with the gods in this genus which is rational animal, because we and the gods are rational animals, 'mortal' added to us essentially separates us from them: because they according to the Stoics are immortal animals, but we are mortal. But when the ancients thus say, that difference is that by which they differ, they define or describe difference and its proper effect: and it is a certain manifestation of the name, although it is not a true definition. Nor did the ancients induce these assignments as true definitions.

But if it should be objected, that according to the preceding things which were said about the figure of the tree describing from the most general down to the most special, there are two, rational animal and mortal animal, of which one is under another. But such are not said to have one equally immediate species, but rather one

ought to be the species of the other, and that which is lower, to have under it the most special species. But the contrary similarly seems to be the case, when it is said that man is a mortal rational animal. And it must be said to this, that in the nature of reality according to the opinion of the ancient Stoics it is thus as the objection proceeds. And when it is said that man is a rational animal, this whole complex is posited for the circumlocution of the proximate genus, and 'mortal' is added [as] a difference further determining to the most special species: and this is not unfitting, rather it is necessary that the difference of the superior genus with the difference of the inferior and proximate genus be conjoined in the same species in the definition of the species. But the differences of diverse genera not placed subalternately are opposite, and those do not agree in the same definition of a species. It must be attended to when it is said, 'by which single things differ', that single things indeed differ from others by their own properties which are agreeable to them and not to others. But nevertheless in the preceding it was said, that properties (since they are accidents and do not divide substance) do not make proper otherness, but through altereity they show an otherness as if already made prior to the properties by a proper substantial difference, which is proper to the species, because it so agrees to one that it does not to another. And therefore it is the essential difference, by which single things primarily and per se differ, either

through form, or through matter, or through the proper being of the form in this or that matter.

But if it is asked, when it is said that difference is that by which single things differ from each other, whether they differ by one or by many differences: It must be said that through one they differ from all those not communicating that difference with them, just as through 'rational' man differs from all things not communicating reason with him, but from those which communicate with him in one, they differ in another.

But if anyone should object by saying, that singulars in number are infinite at least with respect to us, and thus they seem to differ from infinite: It must be said that nothing is unfitting.

If he should argue further, that he who knows one of the contraries definitively, knows the other definitively. But man knows his own difference by which he differs from singulars: therefore it seems that he definitively knows the infinite differences of singulars, by which they differ from him, and thus in a moment he knows almost all things.

It must be said, that to follow is that he knows all those things in so far as they do not agree with him, and this is to know in the universal, and in potency, and not properly according to the nature of each one: and it is not unfitting, that in a moment in some universal and potential way he should know many or infinite things.

But concerning the example which the ancients induced about 'mortal', which they have for a difference, since difference is part of the

being of a thing, and 'mortal' seems to say that a cause is absent:

It must be said that if 'mortal' says a passion of a living thing, certainly then it says that a cause is absent, and it is not a constitutive difference of any living thing. But if it says the form of a living composite which is the notion of living such a life, certainly it is a constitutive difference and in this way is an incorruptible essence, just like other differences.

But what they say that 'rational' is the form in which humans and gods communicate, is certainly said according to the opinion of certain Stoics, who said strictly that both we and the gods are rational animals: and they did not say 'animal' through denomination from soul, but through the fact that it is the form of an animated body and moved by the movement of the will, to which afterwards from an inferior genus (which is a composite of a body commixed out of contraries and a soul) sense arrives. And therefore it does not follow, if God is an animal, that God is a sensible animated substance, in the way in which the Stoics said the gods are animals, just as was already expounded above, and is found in the book *On the Nature of the Gods*.

The Peripatetics also assign in this way, namely saying that difference is that by which single things differ from each other: for things which are accepted by the same division from the same genus do not differ according to genus. An example of which is, that we humans are animals, and irrationals are animals by the same reason

just like us: but reason, added to the genus which is animal, as a constitutive difference of man and God, disjoins us and the gods from those which are irrational. Furthermore we and the gods are equal non-differing rationals in the genus which is rational animal, but 'mortal' added for a constitutive difference to rational animal which is the genus, separates us humans from immortal gods.

<!-- cap:1.5.9 -->

### CHAPTER IX.

#### *On the definition which more properly fits the difference alone.*

But still searching for a definition of difference more subtle than all the previously induced assignments on the part of the Peripatetics with respect to things intrinsic and essential to it, and speculating upon it through those things which do not agree except with the difference, which is called the more proper difference: and in no way either per se or consequently do they agree with the difference which is called proper, nor even with that which is called common difference. For it can at least consequently agree with the proper difference, that through it the species is abundant from the genus. And also what is said to be predicated of many differing in species in respect of what kind it is, can consequently agree with common difference. And similarly what is said, that it is naturally apt to divide those which are under the same genus, can agree with the proper difference. And similarly what difference is by which single things differ from each other:

for by proper differences single things differ from each other. And therefore no such assignment seems to have been given through the intrinsics of the difference.

But examining it more interiorly, and speculating subtly through essentials, which agree only with the more proper difference as it is called, they say, that not any of th-

[th]ings which are under the same genus, and divide those things which are under the same genus, in two ways of division there must be difference more properly called. And they say that this alone is difference more properly called, which leads to being, and which is a part of that which is the reason of a thing. That this is a difference they prove, because properties are from those things which are under the same genus dividing those things which are under the genus. For let us say in dividing those things which are under the genus. Of animals one is born apt to navigate by nautical art, and another not: although nevertheless to be apt to navigate by nautical art be a property of man, and not from his being and essence: for we often use such differences in dividing a genus, although nevertheless such things be properties following the being of a species. But those things which are following being, cannot be completive of its being, nor perfective of substance, nor an essential part of its substantial being: although it be completed in a certain being which is not being simply, but is a certain aptitude following substantial being. And therefore such a difference is not proper, as

are the more proper differences, which are called specific differences, because they are constitutive of the species in specific being. Therefore those alone will be specific which by an essential quality make one species other than another, and which are predicated in that which is of what sort of a constituted species. For differences, as was said above, are compared both to a genus and to a species, and have respect to either of them: indeed to the genus according as they are divisive, but to the species according as they are constitutive. And therefore they are under the genus and contracting the genus, and there are species under them. And the differences themselves are antecedents to the species: because they are in act and in intellect in the species themselves as constituting in them.

But since they are following in the being of genera according as they are genera, and everything which follows the being of something, is from the genus of accidents, as Avicenna says, it will perhaps seem to someone, that they are accidents of the genus, just as properties are accidents of the species, because properties are from the things following the being of species. But to this it must be said, that the relation of a genus to a difference is not similar to that of a species to a property. For a species relates to a property as a perfect being which is from the notion of the property: just as a subject is from the notion of a passion not existing of its essence, but only making it subsist in itself. But a genus relates to a difference and is posited as an imperfect being to

be perfected through the difference, just as matter through form, and as to that which is educed from its power just as form is educed from matter. And because nothing perfects a substance to the being of substance, except substance, therefore a genus is perfected to the being of a species through difference. But a species is a substance. Therefore it is necessary, that a difference thus regarding a genus and species, be a substance and a substantial form.

And as to that which is said that it is following the being of a genus: It must be said that the being of a genus as a genus, is the being of an imperfect thing. And therefore that which follows it thus, is just as an act which follows a potency, on account of which it is necessary that it be a substance. But if the being of a genus were the being of a perfect thing, it would follow of necessity that a difference were an accident of the genus: and then it could not be a substance of a species: because what is an accident to one, can be a substance to none, as Aristotle says. If nevertheless a genus be considered not as a genus, but as a universal predicated of many, which has proper individuals just as animal is predicated of this animal, and that, as was determined in the treatise on *Genus*. Certain ones say, that thus it is considered as a perfect being in its own being, and thus difference is compared to it as following it. They say, that a difference thus considered, is an accident of the genus. But in truth it is not an accident according to

the nature of an accident: but in this consideration it has the mode of an accident, and not the nature: which is evident in the predication by which the difference is predicated of the genus alone, as when it is said, *animal is rational*: or under disjunction to the opposite difference, as when it is said, *animal is rational or irrational*: for either of these propositions is in the second mode of saying *per se*, in which the subject is from the notion of the predicate. And in that mode indeed the subject is the cause of the being of the predicate, and is nothing of the essence of itself: and this is for this reason, because, as Aristotle wishes, an accident is rather a being than an essence. For thus the subject relates otherwise to the notion of the predicate, than in that in which a true accident is predicated: for when it is said, *animal is rational*, the subject cannot be understood in the notion of the predicate as posited with an absolute nature from the thing of the predicate, but with a power progressing into act, and in which there is already the inchoation of the difference so that the predicate be in the subject. But when a property is predicated of a species, the species indeed is from the notion of the property, so that the property is not in the species as in potency, but in a species already having completed being through the mere aptitude of nature for certain things, which are nothing of nature in being: as is evident when it is said, *man is risible*: for in this that man is of an intellective soul, which is born to be suspended and to wonder at those things which are objected to its

apprehension, he is made risible towards joyous cognized things, and weepable towards sorrowful cognized things: although nevertheless such wonder be nothing of natural things, that is, of those things which are of the constituents of the nature of man. But the genus does not relate thus to the difference when it is predicated of it: and therefore although that predication be reduced to the second mode of that which is *per se*, nevertheless it also has something of the first: but that this is an inordinate predication, because according to the thing itself the subject ought rather to be the predicate, than conversely.

Thus therefore difference relates to the genus. But to the species it relates as a formal and perfective and determinative substance of the power of the genus, as was determined in the things held before in the treatise on *Species*.

According therefore to those things which have been said, it is evident that the genus is the first principle of the difference and the species, and by consequence also of the property and the accident: because also the genus is the first subject in nature, from which the species has, that it is the subject of the individual: for as was said quite often, the formable and determinable principle in every nature is the first subject in that nature, just as matter, the first formable thing, is the first subject in physics. Moreover the species is also a subject according to something formable from a property. And the individual is a subject according to something formable from an accident. For indeed since the subject is thus found

in many through one common notion existing in them, it is necessary that it be in one first thing which is the cause why it belongs to all others, as Aristotle teaches: and in this way to the genus of substance are reduced species and individuals and differences and properties and accidents: for in this way the genus is the principle of all.

Moreover in that way in which the genus is the principle of those things which are in one coordination of predicables, thus the genus is the principle of the difference and the species: and therefore that whole coordination is reduced to the genus, and not to the difference: for although difference be formal with respect to the genus, and in this it may seem to be worthier than the genus: nevertheless because it is principled from the genus, and is not the principle of the genus, it is reduced to the genus as to a principle: and since the highest and first things in predicables are just as first principles, as was determined in the things held before, it is necessary that the first things to which all others are reduced, be first genera, and not proper differences.

There is nevertheless also in differences an order which

is of superior ones to inferior ones: which is the order of superior and inferior, by which inferior differences through addition to genera become more composite and of lesser community: just as is the order in primary and secondary formal causes, in which order the virtue of the primary cause is in the secondary, and the virtue of the superior remains in the caused thing,

when the secondary subtracts its causality from the caused thing. Also in this order whatever of causality the second has, it has totally from the first. But this order does not run back to a first principle, because the first principle of all things is the genus. And this is the true cause why difference cannot be the first and most general, but it is necessary that it attribute being first or most general to the genus.

This therefore is what the Peripatetics handed down about difference saying that the intellect scrutinizing and speculating difference, makes difference to be not any of those things which divide those that are under the same genus, but that which conduces to being, and which is part of the being of the thing. And they give an example: for neither will that which is naturally apt to navigate through nautical science be the difference of man, although it agrees to man alone and is proper to man: for dividing animal we say, of animals some are naturally apt for navigating, but those not at all, properly dividing animal from those which are not naturally apt to navigating: but this property which is to be naturally apt to navigate will not be an essential completive principle: for it is not an essential part, but a certain aptitude of his, and therefore a property is not such an aptitude, of what sort are those which are called specific and substantial differences.

From these things therefore which were said, it is evident that there will be specific differences, which by alteration of an essential quality make

another species, and with this are predicated in respect of what kind it is. For what kind a thing is is not simply what kind, but is an essential what kind perfecting a substance: on account of which it is manifest, that difference is that which leads to the being of the species, and which is part of the being of that thing which has simple and perfect being: for it leads to the species which is the whole being of individuals, and it is part of its formal being, and it leads to the being of the thing which is the individual, whose whole being is the species: and it leads to the being of the species, and is part of the being of the thing, that is, of the definition which is declaring the being of the defined thing: because a definition consists of genus and difference as of parts, of which each one is the assignment of the whole: but they are called parts, because one declares the whole in potency, the other declares the whole in act: since the whole consists of potency and act as essential parts: for it is not unfitting, that an essential whole be in any of its parts according to a diverse being: and according to this a definition declaring the whole being, consists of genus and difference, because although difference is as a form declaring the whole being in act, nevertheless alone it cannot define without the genus on account of two causes, of which the first is because difference without the position of the genus would fall from the ratio of difference, for there is no difference of any things except those agreeing in a genus: and if a genus were not posited, it would not have the ratio and act of difference, because it

would not be known among what things it would posit difference. But the second cause is because then the definition would not respect nor have within itself its first being and principle, which is the genus, as we said, and not the difference, and thus it would not be a definition, because it would not explicate the being of a thing from one end all the way to another: for there is one end, from which the genus begins, which is the end according to potency. But there is another end in which being is terminated according to act, which is the difference. And therefore a definition is called a definition, because from one end to another, it embraces the whole finite being. And thus concerning differences common and proper and more proper as much as pertains to logical intention, those things which have been said suffice: for other things which there are, pertain to the First Philosopher.

<!-- cap:1.6.1 -->
### CHAPTER I.
### *On the intention of property according to which the logician considers it.*

After the treatise on *Difference* which perfects the species to the being of the species, we must consider *Property*, which as Boethius says, flows from the essentials of the species already preconstituted through difference by the intellect: for it does not flow from the genus according as it is a genus, because then it would be indistinct: nor does it flow from the difference according as it is of this sort, because the ultimate difference is one, and thus the property would

not be except in one way, which is false: and if it followed the nature of other differences, then it would be multiplied according to the dispositions of those differences, and this again is false. Therefore property is that which flows from the substance of the species already constituted through the difference conjoined to the genus in the constitution of the species.

But of this substance which is the species, having definitive being from genus and difference, there is a twofold consideration. For it is considered according as it is an absolute substance and species, and it is considered according as it has being through inclination to the matter in which it is. And in the first way indeed no disposition follows the species, from which something other than the species flows, or not only that accident which is speciality and universality and things of this sort which are not properties in this way in which the logician intends concerning property, and according as property is one of the five universals. But in the second consideration in which it is considered through inclination or through respect to the matter in which it is according to nature, it has many dispositions, from which many consequent properties arise. Just as on the part indeed of the matter of man, that man is of neat flesh, but a horse and a donkey are of hard flesh, and that man has broad nails, but rapacious animals like lions are of round and sharp nails, and things of this sort: and on the part of the form, that man is perceptible of discipline on account of the

subtlety of blood and clarity of spirit, but some animals are indisciplinable and some are intermediate, and things of this sort which follow the form of the complexion: and on the part indeed of the intellectual soul, that man is an animal capable of admiration concerning things heard and seen and generally apprehended by sense, some animals are not of this sort: and that man is capable of laughing or weeping, but some are not: and there are many such things which follow the nature of the species through the respect of inclination to such matter due to the species, and do not follow the individual according as it is this or that individual: and if they agree in the individual, this is, because that individual participates in the species: on account of which also the property is predicated immediately of the species alone, and does not have a proper individual, but is predicated of the individual of the species through participation in the species.

Now therefore it is manifest in part, that the property of which the logician intends, is one of the five universals, and the fourth among them, which is an accident following the common nature of the species in the matter of the species de-

-termined according to nature: and according as that nature is varied in the matter due to the species, thus properties are multiplied. Therefore logical property is not only what is properly called property, which agrees to every one, to it alone, and always, but this also is logical property, which agrees to every one and not to it alone, just as to be a biped: and that which agrees to

the species alone even if not to every individual of the same species, as to be a doctor, or a farmer, or a navigator, through the art of medicine, or agriculture, or the discipline of navigation: and also what agrees to every one and to it alone, but sometimes and not always, just as for a man in old age to become grey, or an old man to become white, or in the progress of the time of age to become black [dark], and for a swan in its final age to have all white teeth, and many things of this sort are found. On account of which Aristotle assigns property in three ways. Property therefore 'when', and property 'toward something', and property 'simply': because property 'toward something' comprehends two, namely what agrees to every one, but not to it alone, and what agrees to it alone, but not to every one: and according to this intention of property it is one of the five universals, and is predicated of the species not essentially, because it is responded to the question set by 'what kind', and not of the genus, but of the species. For when we are interrogated what Socrates is, we conveniently respond, that he is a man: but again when we are interrogated, what kind of man Socrates is, or what kind of species of animal, we conveniently respond, that he is capable of laughing, or [is] a biped, or a doctor, or grey-haired.

It must be attended to that property as it is a universal predicable in that way, falls into the mode of predicating an accident, because an accident is predicated as a common thing: because from common things it is caused to one species

and to another, and from a common thing to one individual and to another, and it is not caused from principles adequate to the species according to the nature of that species, which it has in its proper matter. For those principles are either entirely adequate to the principles of the property, or are exceeded by the principles of the property, or exceeding the principles of the property. If they are adequate: they are either intransmutable, on account of this that they hold themselves on the part of the species: or transmutable, on account of this that they hold themselves more on the part of matter. And if indeed they are adequate to the principles of the species and intransmutable: then from them flows the property which agrees to every one and to it alone and always, and is convertibly predicated of the species, just as capable of laughing [is predicated] of man. But if they are transmutably adequate: then either the transmutation is from the necessity of nature: or it is through the will or appetite of the soul. And if through the necessity of nature: then it is a property 'when', which agrees to every one and to it alone and not always. But if it is not through necessity, but through the appetite of the soul: then it is a property 'toward something', and not always, that namely which agrees to it alone and not to every one, and it is a property toward those of the same species to which it agrees, and not toward other things of the same species to which it does not agree. But if the exceeding principles of the species are intrinsic principles of the property, then it agrees

to it alone and not to every one. But if conversely the principles of the species are exceeded by the essential principles of the property, then it will be a property which agrees to every one, but not to it alone.

For it is necessary to know, that the principles of the species are of substance: because the species is a substance which is made from the principles of the species: but substance is not made from non-substances, and therefore the principles of the species are necessarily of substance. But since the property is of the nature of an accident, which is not part of substantial being, it remains that the principles of its essence essentially constituting it are accidents: nevertheless these principles essential to the property are caused by those principles which are substantial to the species. Avicenna gives an example of which that is quite convenient: for from this that man is a rational animal, or intellectual through principles essential to man, it follows that he is capable of admiration concerning things seen and heard, and that he is of vehement heat and spirit toward the face, where the perceptive senses are stretching forth or inclined forth. But when heat and spirit are stretched forth to the face, it is made of the face and the mem-

[mem]bers placed in the face. He is therefore apt by nature for laughing, even if he does not laugh in act. Conversely however if he perceives not desired but contrary things, there follows to the heart a retraction of heat and spirit and a constriction of the heart, whose constriction is

followed by a constriction of the face and of the brain, which being constricted and compressed through the membranes of the brain, there follows this tearful expression distilling through the pores continued to the brain, through the veins and nerves, and then it flows through the eyes, through the nose and mouth, which is to be weepable. Which properties animals cannot participate in, which cannot have this kind of prudence and wonder concerning things apprehended. Moreover it is proportionally in other properties, which are properties *when* and *to something*, as is easily evident to anyone intuiting the principles of a species in matter through the mode which was said a little before.

From this moreover the difficulty is solved which certain ones introduced saying, that if a property remains from the principles of a species, but the principles of a species are substances, from substances there is not made a non-substance: therefore it is evident, as it seems, that a property is a substance. To this moreover if it be said, that there are double principles: some essential to the property, which are the relations of the principles constituting through the species, and these are accidents. There are also remote principles, which are essential to the species, and these are substances, and are the principles of those things which are the essential principles to the property. Moreover they still seem to conclude what they intend through this proposition, that whatever is the principle of a principle is the principle of the thing principled: and if the

principles of a species are the principles of the principles of a property, then they are also the principles of the property: and then it seems to follow the same as before. Moreover the solution of this is, that although the principles of the species and the principles of the property be the same, nevertheless not in the same way: but through the relation of act to potency they are the principles of the species, and through the relation of the essence of the whole to the acts or passions following the nature of the species in matter they are the principles of the property: and therefore it is not necessary that a property be a substance, because such a relation follows completed being, and therefore it is from the accidentals.

But to this they object more strongly saying, that when a property is predicated of a species, just as when it is said, *man is risible*, in that proposition the subject is from the notion of the predicate, as Aristotle says: the subject is therefore taken in the intellect and enclosed in the predicate: for that which according to the intellect is conceived and enclosed in another, per se and essentially belongs to it: therefore the same is the essential principle of it, and that which per se and essentially is the principle of something is from the essence of itself. Since therefore the subject is a substance, it is necessary that the predicate also which is the property be a substance. This same thing is further confirmed thus: when a property is predicated of a species, the species is the cause of the property: either therefore it is a cause *per se* and univocal, or by accident and

equivocal. If it be by accident and equivocal, then this is not *per se*, *man is risible*, which is false, because it is in the second mode of saying *per se*. But if it is a *per se* and univocal cause, but a cause *per se* and univocal gives to the thing caused its own nature, essence and name: and if it gives nature and essence and name, it is an essential cause, and something from the essence of the predicate: and thus since the subject becomes a substance, the predicate will be a substance, as it seems, and thus it will not be a passion, or property, but a species, and thus there will not be five universals, but four only, as it seems.

But these things are easily and quickly solved if those things which were determined in the things held before be recalled to memory: for when the subject is in the notion of the predicate, it is not in the notion of it as some *what* existing of its essence, but it is in it as a cause through the mode which has been said, namely of an aptitude following the being of the subject: and therefore it does not follow that the property be a substance just as the subject, but it follows that the subject which is a *what* and substance, be the cause that such a passion follows it, and be in it, whose inherence in it is the cause that it is predicated of it: but if it were in it as a *what* or were its principle, then

what was concluded would follow well. But to that which is objected concerning 'essential', it must be said that 'essential' is said in two ways: for that is essential which is a somewhat of the essence, and concerning this what the objection

proves is true. Again that is essential which is a cause not abandoning the essence, although nevertheless it is not a somewhat of the essence, and concerning this it is not true. In this way the subject is essential to the predicate and conceived in it, when property is predicated of the species, and generally a proper passion of a subject: such therefore is the property which is the fourth among the five. Thus therefore property is a universal.

Although property and universal according to the ratio of the names of property and universal seem to be repugnant, because property is what agrees to one alone, but universal [is] what agrees to many. But to this it must be said, that although property agrees to one alone, nevertheless this alone is a common species, which is in many in potency, or in act, or simultaneously in act and potency: and although it thus agrees to one alone, nevertheless it is in many and of many, in which and of which is that alone of which it is the property: and this is not against the ratio of a universal, as was determined in the preceding points in the treatise on universals in common. For it must be attended to, that what is truly a property, is what agrees to every one and to it alone and always, and is conversely predicated of them: and through respect to that other properties are received, namely that which agrees to it alone, but not to every one, or to every one, but not to it alone, or to every one and to it alone, but not always. But definition agrees to every one and to it alone always, but it is a what, but not a

what kind. Property therefore has the predication of a universal, although it may not have proper individuals, as was said.

Therefore against this some object saying, that if this universal which is property, does not have a particular, therefore it does not have a particular, except through something: but if it does not have a particular except through something, since universal is said [in relation] to particular, it seems to follow that it is not a universal except through something: but what is not a universal except through something, is a universal per accidens: therefore property is not a universal except per accidens, and thus there are not five universals per se, which is false. But to this it must be said, that property in reality is predicated of the species of which it is the property, by immediate predication. But, as was said, it respects the species according as it is in matter and in the particular, therefore its predication is referred per se to particulars: and thus per se and not per accidens it is a universal.

But if it is said that of two universals of which one is not contained under the other, they ought not to have the same particulars: just as of diverse genera and those not posited subalternately there are diverse species and differences, also so there ought to be diverse individuals. It must be said that it is true of genera and species: but of universals it is thus, that several of them are referred to each other just as genus to species and species to genus, and similarly difference is referred to both of them, and thus also property

is referred to species: and therefore they can have the same individuals, nevertheless not in the same way. For another mode of the individual is this animal, and this man, this rational [thing], and this capable of laughing [thing]: although through the supposit of these things all are the same, for Socrates is this animal, and this man, and this capable of laughing [thing]. And if the individual is taken formally, then individuals are formally diverse, just as universals are diverse. But in this is the difference, that this animal does not have the being of this rational [thing] through this that it is this man, but per se: but this capable of laughing [thing] has the being of this capable of laughing [thing] through this that it is this man, because capable of laughing is principled from man or from the species of man, but animal and rational are not principled from man, but rather are principles of man. This therefore is what we intend concerning property according to logical intention.

<!-- cap:1.6.2 -->

### CHAPTER II

*On the definition of property and the explanation of its parts.*

But all this is easily evident if the sayings of the ancients in the division of property are considered. The Peripatetics divide property fourfold: but to divide fourfold is to speak in four ways, because its division is given in many ways. Which is not entirely equivocal, nor is it purely univocal, but of many things agreeing in one name referred to one, to which the ratio of the name agrees

principally and by a perfect ratio. For it is called property what agrees to one species alone, and if it does not agree to every individual of the same species, nevertheless it will be a property because it flows from the substantial principles of the species, although the essential principles of the property are not equated to the principles of the species, and through voluntary transmutation they are referred to the principles of the species: and in this way to be a doctor or a geometer is proper to man, and it is a property 'toward something' of his species. And there is a property, which happens to every individual of the species, but does not happen to the species alone, because the principles of the property exceed the proper principles of the species, although they do not exceed all its principles: just as it is proper to man to be a biped. And there is a property, which agrees to the species alone and to every individual of the same species through the aptitude of common nature, although it may be accidentally impeded in something, but it does not agree always, but sometimes, as to become grey in old age. For since man has the largest brain in respect to his body and the most humid, which is not terminated except as long as the natural heat is strong, it is necessary that, as age proceeds and the heat cooling and resolving it, and not directing, nor terminating it, it begins to putrefy: and then he becomes grey and white according to nature. Although this may be accidentally impeded in those in whom there is a subtle and fat humidity easily

terminable through a moderate heat: on account of which those who have soft and thin hairs, either do not become grey, or [do so] late: for the softness and thinness of the hairs, is a sign of a subtle and fat humidity, and this is property 'when'. There is also a property which agrees to every individual of the species, and to the species alone, and always agrees, because the principles of the property are inwardly equated to the principles of the species and immovably flow from them: and this is properly a property: just as capable of laughing agrees to man through the aptitude of the nature of man, even when he does not laugh according to act and the operation of use, he is said to be capable of laughing, not that he actually laughs, but that he is naturally apt to laugh, and in this way it agrees to a horse to be capable of neighing, and to a donkey to be capable of braying, and to an ox to be capable of mooing: and thus any animal has its own properties, and also any of the species, although the names of the properties are not posited, because they are unknown to us. Nevertheless we say that species and things contained under species have many operations not from active and passive qualities which are in them, but from the whole species, just as scammony is said to purge choler, and sapphire to repel tremors and anthrax: and this is said to be a property to them. But these are thus called properly properties, since also they are converted and conversely predicated of the species universally: for whatever is a horse, is capable of neighing, and whatever is capable

of neighing, is a horse. It must be attended to, that although capable of laughing is a property of man, nevertheless capability of laughing is not his property, because a property is a predictable universal: but capability of laughing cannot be predicated of man, just as neither is rationality predicated in difference, but rational is predicated. And Avicenna says a quite convenient cause of this: because since a universal is the notion of the whole of that of which it is predicated, and says that whole either according to potency or according to act or according to the natural potency following it in that in which it is, thus it di-

-rects the whole property. But in such a way the whole cannot be signified through the abstract, but is signified through the concrete. For it is necessary that the universal be signified more by concretion through a name.

For although thus the four universals which are genus and species, difference and property, have to be signified in the mode of concretion, nevertheless on account of this they are not denominative, but they are names of the whole being giving the name and the ratio to that of which they are predicated: which denominatives do not do, because those are nothing but either essentials of that of which they are predicated, or flowing from essential principles: but denominatives are formed from an alien nature, which through a non-essential cause, but an infinite one have being in the subject, and therefore they can be predicated not essentially, but denomina-

tively: as when it is said, man is white or black or something of this sort. But these have to be determined in the doctrine of predicaments. Such therefore is the intention of property among logicians, and such is its division. Therefore let these sayings concerning property suffice.

<!-- cap:1.7.1 -->

### CHAPTER I — *On the difference of property and accident according as accident is the fifth predicable.*

Before we treat of the assignments of accident by which the Ancients described accident, it is necessary for us to determine concerning the difference of property and accident according as it is one of the five universals. For in this Avicenna says that the ancients who treated of the five universals were deficient, who posited the descriptions of accident before they distinguished in what signification accident is received, according as it is one of the five universals. For since everything that is is a substance, or an accident, as Aristotle says, and property on account of this that it follows the complete being of the species is an accident, it will seem of necessity, that property is an accident. And thus if accident is taken for all that which is not a substance, it seems that property is not divided from accident, and the universals are not five, but only four.

But still property cannot be said [to be] essential to the species: because since property follows the whole composition of the species, and its complete being, the species is understood without the property: and since it is not essential to

the species, it will be as accidental to the species, and thus it is in nature just like an accident: and since in comparison to its proper subject it is accidental, the whole will be posited into the nature and essence of an accident: therefore it will not be in any consideration except an accident, and thus

again it seems to follow, that there are not five universals, but only four. But if someone wishes to say, that the comparison of an accident to a subject is twofold: for the same accident is compared to the subject as to a substance only, and this is an accident: or it is compared to the subject not as to a subject, but to a cause, and this flows from the principles of the subject, and is proper to the subject, and thus property differs from accident. This cannot stand: because every accident, as Aristotle says[1], is caused by a substance and is established and ordered by it, and without it is flowing and undetermined: and thus it would follow that every accident is a property, and thus again it would follow, that there were not except four universals, namely genus, difference, property, and accident. This also is proved by reason: because everything which according to the order of nature is prior to something, is a cause to it, as is determined in the book *Of Causes*, and in the book *of the fount of life*: but it cannot be denied but that in the order of nature substance is before accident: accident therefore is thus compared to substance just as to a subject and to a cause. But this also the ratio of the name of *substance* says which is called from *substanding*, because it stands under an accident as subject and cause.

Still accident is divided into separable and inseparable accident. But an inseparable accident is, what is caused by the principles of the subject: but a property is an accident caused by the principles of the subject. It seems therefore that property is a part of acci-

[acci]dent, and in a smaller ambit of community than an accident.

Further Avicenna asks, what is called an accident, when an accident is said to be one of the five universals? For if an accident is said to be that whose whole nature is an accident, such as color, or whiteness: since such things are also genera and species and differences and properties, it seems that the five universals do not differ in thing, but only in mode, as it seems. Afterwards some such things are saying only a certain mode, just as when it is said, *the body is a creature*, or *not a creature*, or *made*, or *eternal*: then such a predication would predicate nothing of the subject, nor could such a predication be reduced to some mode of predication of the five universals. But if such a nature is not called an accident, but an accident is called what is denominated from an accident, such as *white*, then an accident is the same as an accidental, which seems to be altogether false, because accidental says more than accident, and it says a subject which is not of the essence or nature of the accident.

Further it is asked concerning the comparison of this universal which is an accident to the individuals of which it is predicated. For if it does

not have proper individuals, but has individuals of substance, then it seems that it is not properly and *per se* a universal. But if it has individuals proper and *per se* not from another universal: then it follows that since every universal has completed and perfect being when it is in its individuals, that the accident has completed and perfect being when it is in its individuals, as white in *this white*: and thus the accident can have completed being without substance, which is altogether impossible. The question therefore remains, what an accident is according as it is one of the five universals according to Avicenna and Alfarabi?

To these and similar things it is not difficult to respond if those things which were said in the first treatise on universals be well recalled to memory. For it was said that all these five as to the common mode of predicating of many are universals, so that they are in many and of many, and that they are not predicated equivocally of the many in which they are, and that they give to their particulars their names and notion, so that each one gives to its particular its name and notion, namely genus as genus, species as species, difference as difference, property as property, and accident as accident: just as white gives its name and notion according to the predication of an accident to *this white*, of which it is predicated as an accident, and to which it happens or is in as an accident.

And as to what is asked concerning the difference of property and accident according as

they are diverse predicable universals of their subjects, *it must be said* that they differ in this that a property is an accident emanating from the essential principles of a species, and most properly a property, whose principles are immovably adequate to the principles of the species, just as was said in the treatise on *Property*. Moreover there are under the principles of the species the substantial principles of the individual composing it, such as such a soul, and such a body, and such a complexion, and such a composition of members, and such a habit, and such like, from which arises and emanates the accident of the individual, which according as it signifies the whole being, and is the notion of the whole under the being of such an accident, is predicable of itself, nor is it the same as itself: and this under this common [thing], which is a universal predicable of inferiors, says a special mode of predicating, which is not any of the other four modes, and therefore it is the fifth universal, and therefore it is also called an accident of the individual, while a property is called an accident of the species on account of the cause which was said quite often: and therefore the predicables would be deficient unless the predicable accident were added to the other four. Therefore it is also called a common accident, because such a relation of principles is found commonly in diverse genera and species of particulars. Therefore it is also called an infinite accident, because the principles are not standing, but mobile by a motion by accident, which

[to] all and infinite. And therefore it is also called an accident *per accidens*, because such essential principles for individuals are not determinately of the understanding of an accident, so that it be conceived in the definitive notion of an accident as determined subjects, just as a determined subject is conceived in the definition of an accident *per se*. Therefore such a universal predicable of many through this, that it is the notion of the whole under the accidental being of this accident (as Alfarabi says), is the fifth universal which is called an accident. And because nothing signified abstractly can be the notion of a whole subject according as it is under substantial or accidental being, on account of this an accident signified in the genus of accident alone, such as color, or whiteness, cannot be a universal thus predicable as an accident, although it can be a universal as a genus, or species, or difference, or property. As to what Avicenna says, that here the accidental is called an accident, when the accident is said to be the fifth universal, although this also says a subject and an accident, which are of diverse natures not ordered to the same thing, as potency and act, nevertheless it is not predicated except according to the being of the accident, which it has in the subject, and therefore the whole predicate is called an accident.

And according to this it is not difficult to respond to those things which were introduced by objecting. For when it is said that everything which is, either is a substance, or is an accident: this is true according as a substance is a being

*per se*, and an accident is a being through another in another: for this division is reduced to this one, which is, that everything which is, either is a being *per se*, or not a being *per se*, which are divided through affirmation and negation: and thus a property, as Boethius says, is from the genus of accidents. But according as there are diverse modes of being *per se*, according to which the substantial predicate is varied into *what* and into *of what sort*, so there are diverse modes of being in another and through another, according to which the mode of predication or of the accidental predicable is varied. For something is in another and through another, so that its principles are adequate to it, and are immovably in itself: and this has the mode of a property which is simply a property, because a property *when* and a property *to something* fall short from a property simply: and therefore they take according to something the mode of an accident. On account of which Aristotle says that nothing prohibits an accident from becoming a property *when*, and *to something*. Whence such are accidents having something of convenience with the property.

To this which he says, that an accident *per se* is not essential to the subject, because the subject according to perfect being in nature and intellect is before it. It must be said that it is indeed true, that a property is not essential to the species and to the subject of which it is predicated: nor was this said, but rather conversely, that the subject specified through universal prin-

ciples is essential to the property, because the subject is in the notion of the property, and not the property in the notion of the subject: nor is the subject called essential to the property or to a *per se* accident, because it be something of the nature of the predicate, but because it is the cause of it from which it is made and in which it is made according to being: and therefore it is called essential to it just as not abandoning it in act and intellect, and not as conceived as a *what*: or an essential *of what sort* of itself, just as genus and difference are composed in the intellect of the species. But in this way substance does not relate to a common accident or to an accident *per accidens*, but relates only as a terminus at which the being of the accident is terminated without which an accident is fluid and uncertain, and as the foundation by which it is founded: and this a substance has as it is substance, and not as *this* substance or *that*, and therefore it is not taken *per se* in the notion or definition of the accident. And therefore this is not *per se*, but by accident, when it is said, *man is white*: although this be *per se*, *man is risible*. For when it is said *man is white*, it is noted that man is the subject

flowing of whiteness, and that in which the white is founded, such that whiteness is in it, and the subject does not say the cause why the accident is such in it. But when it is said man is capable of laughing, man says the cause why the capability of laughing is in him, and therefore the mode of predicating here and there is diverse.

But to this which is said concerning separable and inseparable accident, that one is compared to the subject as to the subject only, but the other is compared to the subject as to a subject and to a cause, and thus property is a part of accident: *It must be said* that although an inseparable accident is compared to the subject as to a cause, nevertheless it does not follow that property is a part of accident. For property is compared to a subject which is a species through incorruptible and immovable principles, as has often been said: but an inseparable accident is compared to the principles of the individual which are movable and corruptible as making towards this complexion or towards this composition, although on account of some cause it is not changed while the subject remains, just like blackness to the Ethiopian, as Aristotle says[1], because the seed in the matrix is decocted by a strong decoction, and therefore the clear humid is resolved, and the terrestrial black and not clear remains. And since the comparison of property and of an inseparable accident to the subject is another, it is evident that property is not a part of accident, unless perhaps property 'when', and 'toward something', which are simply of the nature of accident, and properties according to a certain respect, as was said.

But to this which is asked, what is here called an accident, the response is already evident in the aforementioned things. But what could be asked, what is the difference of an accident and of something accidental, from the fact that accident here is called accidental, as Avicenna says, must

be solved through the same Avicenna saying, that *accident* is so called through opposition to substance: but *accidental* is denominated from an accident and by reason of the accidental being which the predicate has, and not by reason of the substantial being which the subject has: and therefore he says that white does not say whiteness, but a white thing designated under the being of whiteness. And this because it was determined in the preceding points that a universal is not predicated except through this that it is the notion of the whole being of its subject, this has often been said.

But to this which is asked concerning the individual of this universal: *It must be said* that (just like others) it has certain proper individuals: because otherwise it would not be per se and univocally a universal just like others: and this is true, that a universal as a universal does not have perfect being according to act and nature, except in its particular: and thus this white gives perfect being to white designated in a universal. But from this it does not further follow, that this accidental being does not depend on substance, as to the terminus of its flowing, and the foundation of its being, and thus it needs the individual of a substance. And this therefore, because it is a universal which is an accident, and insofar as it is a universal it has an individual. And insofar as this universal which is an accident, needs the individual of a substance, just as also was said concerning property in the preceding treatise: for on account of such a diverse mode of predicating

this universal is diverse from them. Thus therefore according to the later Peripatetics it must be determined concerning the intention of defining [the accident], before one proceeds to the assignments of accident. On account of which Avicenna refutes Porphyry, that the determination of accident having been omitted, whose intention was not known, he immediately proceeded to its descriptions.

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### CHAPTER II.

### On the first assignment of accident given by Porphyry.

The assignments of accident given by Porphyry and by other Peripatetics, are in many ways said to be vicious and reprehensible, and the sayings of Avicenna and Algazel and Alfarabi concerning accident according as it is a universal -ry.

[and] Jacob the son of Al-Kindi, [say?] to have less of truth, and to be manifoldly imperfect, in some things not true, and in some things imperfect, and in some things not pertaining to the matter.

For what the ancients say in the first assignment of an accident, that an accident is that which is present and absent without the corruption of the subject, ought to have been of the genus. Therefore it ought to have been said that an accident is a universal. For the universal is for the genus to the five kinds. Further there ought to have been added a difference contracting to the predicable, which is the accident, and separating

it from others in the mode of predicating of many: so that it would be said thus, an accident is a universal predicated of many not essentially, but in *what sort* and not in *what*: for this would be why it is present or absent to that of which it is predicated without the corruption of the subject. Further just as it is absent without the corruption of the subject, so it is absent without the constitution of the subject, for motion according to accidents, as Aristotle says, is from subject to subject with the same subject remaining and saved under either of the terms of the motion: and this is the cause why it is present and absent without the corruption of the subject of which it is predicated.

Avicenna also says that there is a vice in this, that according to this assignment of an accident they divide the accident into a separable and an inseparable accident: saying that to sleep or to sit is a separable accident, but to be black belongs inseparably to a crow and an Ethiopian. And if it be objected that this seems to be opposite to that which is said in the assignment of an accident, because if it is present and absent to the same without the corruption of the subject, then every accident seems separable and none inseparable with the subject remaining. They give a very calumnious response saying, that an accident is separable from the subject according to the intellect, because a white crow and an Ethiopian shining with whiteness or color can be understood: but a shining color is not except white. But this response seems very weak, because sep-

arable according to act, and separable according to opinion or intellect, are separable equivocally and such things ought not to be put in the assignments of definitions.

Moreover it still seems false what they say, that without the corruption of the subject a white crow and an Ethiopian shining with whiteness could be understood: for blackness is compared to the crow and to the Ethiopian, as to a subject and to a substantial cause of matter and to the subject of the crow and the Ethiopian: and therefore with the crow remaining according as it is a crow, a white crow cannot be understood, as it seems: because with the crow posited as a subject, the cause of blackness is posited, and with the cause of blackness posited it cannot be understood that whiteness is in the crow: therefore such an assignment of an accident is faulty, as it seems: and Avicenna concedes all these things.

Moreover it still also seems false: because death happens to man, and combustion to a house: and neither of those is present without the corruption of the subject: moreover still generation. Thus therefore the Arab Philosophers reprehended this description of an accident by Porphyry.

To this certain of the Latins feigned certain responses, which because I repute them to be deliraments, we will make no mention of them. But the truth of those things which the Ancients said is, that an accident is that which is absent and present without the corruption of the subject. For from the first division of the universal

into five universals they wish the universal to be understood, so that the sense be. An accident is a universal, which is predicated of a subject not essentially, and therefore it can be in the same subject, and be absent from the same: nor was it necessary to posit, that through division it could be understood by anyone. Similarly they said concerning this which is said about the non-essential mode of predicating: this mode is understood from the things determined in others, which are all predicated essentially according to the first or according to the second mode of saying *per se*, as was said in the things held before. And since only the accident be remaining among

[among the] universals and the last, because it has less of the notion of a predicable, it was remaining that it should not be predicated essentially; and thus it relates indifferently to affirming and denying towards its subject, which is present and absent to the same subject, with the same subject remaining uncorrupted: which is not fitting for any other of the universals which do not relate to the subjects of which they are predicated now by affirming and now by denying: because they themselves are in the subjects in act and in intellect, or the subjects are in the predicates themselves according to the intellect, which is not in the subject of an accident, nor even in the predicate.

Moreover as to what is subjoined concerning the division of an accident, the reason is that a true assignment concerning either accident be shown. And concerning the separable indeed

what is said is plain. Concerning the inseparable it is also true, because Aristotle teaches that alteration is when, with the same subject remaining, a motion is made in its passions: but when a motion is made according to an inseparable accident it cannot be denied that it is a motion of alteration and not of substance: it is necessary therefore that the same subject remain saved according to substantial being: because otherwise the motion would be either from non-subject to subject, or from subject to non-subject: and this is the necessity which compelled the ancients to say, that according to inseparable accidents the predication is of an accident, which is present and absent without the corruption of the subject. For the constitution of a subject is twofold, namely according to being simply, and according to being of such or such a complexion. According to being simply it is constituted by the alone principles of substance which are form and matter determined to the species or to the individual of the species. But according to being of such or such a complexion it is constituted from the qualities of the substantial principles and not from the principles themselves. Of which there is a sign: because if the egg of a crow be taken, and be smeared with quicksilver in a viscous humor just as is the ointment of a goose or a cat (which are cold animals), and the nest be in a very cold place, just as on the summits of cold mountains, there will be a white crow from the egg, and sometimes it will be white from the coldness of the place alone: and this would not be unless the

substantial principles were separable from such accidents. For it is manifest that an Ethiopian in cold places gradually becomes white on account of the same cause.

As to what is objected, that such inseparables are compared to the subject as to a cause: and this is because the subject there with the substance and principles of substance designate such a complexion in its notion and name. But if the subject be supposed without such a complexion, then with the same subject remaining the accident is present and absent. And as to what he says that separation according to opinion or intellect, and separation according to act are among equivocal things, it must be said that it would be true, unless that separability were not except in the soul and not in the subject: but that intellect is referred to the thing, as was said: and therefore there is no sin of equivocation.

From this is evident the solution of what can be objected, that thus also the subject of a property can be understood without the property, and thus that which is properly a property could be separated according to the intellect. Because it is evident that this is not true: because a property depends through substantial principles on the species. And therefore it cannot be understood without the species, because the species is in the intellect of the property, as was said before.

As to what is objected against the truth of that assignment concerning death and combustion: *it must be said* that in truth it is a delirament what the Latins say, that even after the combus-

tion of a house it may still be understood: for this understanding is inwardly against the nature of the thing. As to what is also said that the dead man still remains in the elements or in the first matter, it is most absurd: because hyle, as Aristotle says, sub-

[the sub]ject of generation and corruption, and not of that motion which is according to accidents : for the subject of that motion is a subject saved in substantial form according to the doctrine of Aristotle.

Whence it must be said that death to the dead is not accidental, nor even combustion to a combustible house, but rather it is both *per se* and essential, this dead thing perished in substantial being, and the combusted thing perished, just as this beheaded thing perished *per se* or the slain thing perished according to the slaying : for death is the dissolution of the substantial principles of life in that which is not dead, and combustion is the dissolution of the principles containing the figure of the house : therefore such a predicate, *it is not dead*, or *it is not combusted*, is *per se* and essentially in the subject, and therefore it is not to be computed among accidentals : for the accident which is intended here, is not that which divides being with substance, but is the same as the accidental predicate, which is an accidental notion or designation.

And if it be objected that such an accident is fluxible and corruptible, and therefore it cannot be a universal, because a universal is incorruptible, *it must be said* that an accident as *this*

accident or *that* taken in this matter or another is corruptible and fluxible: but as abstracted from this and that taken in a universal, it is incorruptible through reason, just as other universals. For thus the said assignment of the Peripatetics is saved.

### CHAPTER III. *On the second and third assignment of an accident given by Porphyry.*

But having thus assigned the description of an accident through the mode of inherence to the subject of which it is predicated, they also introduced another assignment of an accident taken with respect to the cause of inherence, saying that an accident is that which happens (contingit) to be in or not to be in the same. For thus it is understood what they say, that it happens to be in and not to be in the same, so that it be contingent to both. For it happens to be in that which does not have an essential cause of being predial : and it happens to the same not to be in that which does not have an essential cause which prohibits that it not be in : and it is fitting for every accident, even the inseparable one, as was shown just now : for the principles which are taken in a subject and are the principles of an inherent accident, are contingent and not essential principles, and therefore whatever from such principles happens to be in, also happens not to be in when the principles are contingently changed. And this assignment separates this predicate which is an accident from all others. For a genus is a predicate which essentially is in that of which it is predicated, as a being from the notion of that of

which it is predicated. Similarly difference is such a predicate, and in the same way species : but a property does not be in except through the understanding of the species in the proper [things]. But only an accident is said to be in through a contingent cause, and is said not to be in through a contingent cause : on account of which also it has the minimum of the notion of predication, and by consequence the minimum of the notion of a universal : although perhaps it be predicated of more than a genus, or species, or property, or difference. It is nevertheless a universal and a predicable which happens [to] the whole and is designated under such accidental being : and therefore the name *such* (designating the being of the whole subject) is the notion of itself, as the same is predicated of the subject.

On account of which they also introduced a third assignment of an accident saying, that an accident is that which is neither a genus, nor a species, nor a difference, nor a property, but always is in the subject subsisting. Which definition Avicenna reprehends not sufficiently reasonably saying, that this which is added, *but always is in the subject subsisting*: is added altogether idly, and against the understanding of those things which were said in other assignments. Idly indeed,

Because since an accident is said as if "falling" (*cadens*), for the reason that it is not simply a being, and is rather of a being than a being, it was not necessary to posit that it is in a subject : for it is not properly in a subject, but is in some

way something of the subject rather than that it *is*, that is, has being in a subject : for it does not have being in a subject, but the subject according as it is a subject has being according to it. And as for what is called a "subsisting accident," Avicenna says it signifies nothing : but the word is not significative, like *buba* or *bultrix* : for an accident, if it is an accident, in no way subsists, because it does not have any subsistence, but is in a subject only, so that this determination "in a subject" determines the reason of being or subsisting. And it is only according to something (*secundum quid*), which is only in a subject, and thus "subsisting" is posited superfluously : and the sense is, that an accident is subsisting, that is, as long as it is, it is in a subject : and when it is not in a subject, then it does not subsist, nor is it.

But this assignment is impugned by other modes : because by the same reason it could be said of any of the other universals thus, that a genus is that which is neither an accident, nor a species, nor a difference, nor a property, but always is in a subject. And similarly it could be said of others through the negation of the others. Moreover, an accident is not always in a subject if it is present and if it is absent without the corruption of the subject.

But to all these and similar things it is not difficult to respond, when the universals have been considered according to the logical intention : for in this way the accidental predicate is most of all deficient from the inherence of the subject, and

therefore it is described through the negation of others. But it is a privation through the negation of a habit, not that it is entirely a privation, but because it is similar to a privation and near to a privation, because it is deprived of a certain cause of inherence, and this is not in others. Although a negation certifies nothing, nevertheless when it is terminated at those things which it negates, it certifies in some way.

And as to what is said, that it is not always in a subject : it must be said that this objection proceeds from a bad understanding of that assignment : for it does not wish to say, that it is simply in a subject, but rather that the accidental predicate is subsisting, that is, while it is, it does not have being except in a subject, and therefore it always has an inclination toward the subject according to its being, and when it is not in a subject, then it is not. This is therefore what the Ancients said concerning an accident, that an accident is that which is present and absent without the corruption of the subject. But it is divided into two, namely into the separable and into the inseparable. To sleep is a separable accident, but black is inseparable to a crow and an Ethiopian, and nevertheless it happens to both, for a white crow and a shining white Ethiopian can be understood under-intellected without the corruption of the subject.

But an accident is still defined thus, an accident is that which happens to be in and not to be in the same. Still, therefore, it is defined thus, an accident is that which is neither a genus, nor

a species, nor a difference, nor a property, but always is in the subject subsisting.

All these universals, therefore, according to the logical intention having been determined individually, which were proposed in the enunciation held above in the first treatise, I mean genus, species, property, difference, and accident : it must be said next what are common to them, and what are proper.

### CHAPTER I. *On that in which all five universals communicate.*

Having executed all things which seemed to be said about the universals individually, now finally it remains to speak about all those things in which they agree, and about the differences in which they differ from one another. But first we shall speak about those things which are common to all at once. We shall say, therefore, that it is common to all at once, that it belongs to them to be predicated of many. For it is necessary for this to fit all, because the universal which is their genus, is also defined through this: because a universal is that which is in many and of many : but to be in many is the cause that it be predicated of them, and to be of many is the same as that which is to be predicated of many. Although this is common to all five, nevertheless it fits them differently, because a genus indeed is predicated of its species and of the individuals of the genus and species through this, that it is in them according to act and according to intellect. And similarly difference, since it is general, is predicated of species and of individuals of species through this,

that as an essential "of what sort" (*quale*) it is in them according to act and according to intellect. And as for what could be objected against this concerning the ultimate difference convertible with the species, it has already been determined in the treatise on *Difference*. But the species is predicated of many, because it is predicated in "what" (*in quid*) of those individuals which are under it. Similarly also the property is predicated of many, because although it be predicated of one species alone, nevertheless because the species is in individuals as the whole being of the individuals, on account of this also the property is predicated of all those individuals of the species and thus is predicated of many. But an accident is also predicated of many species and sometimes of many genera, as white of a swan, and of snow, and others, and it is also predicated of individuals both of genera and of species.

This is also proved by induction and by example : for animal, which is a genus, is predicated of man and of ox, which are many species, and of horse : it is also predicated of this horse, and of this man, which are individuals. But "irrational," which is a difference or posited in the place of a divisive difference, is predicated of horse, of ox, and of the particulars of these species. But the most specific species, which is species only and not a genus, is predicated of many : for it is predicated of those things which are particulars of that species, as man of those who are particular men. But a property, which is "risible," is predicated of man as of one species alone, and is predicated of

those who are particular men. But black, which is an inseparable accident, is predicated both of the species of crows and of those who are particular crows.

But an accident has itself differently in predicating than a property : because the predication of a property comes through the species to the individuals. But the predication of an accident, since an accident is in the individual *per se*, is first predicated of the individual, and through the individual it comes to the species: and this indeed is an in-

separable. Similarly to be moved is predicated of man and of horse and of their individuals, which is a separable accident. But, as was said, an accident is principally predicated of the individual: but in the second place it is predicated of those species which contain individuals under them.

But to this commonality Avicenna and Algazel adduce from that another cause, which is similarly common to all universals : and this is, that whatever are essentially predicated of the predicate, all are also predicated of the subject : as if animal as a genus is predicated of man, everything which is substantially predicated of animal is predicated essentially of man: as if animal is living and substance, man will be living and substance. Similarly in difference, if man is rational, and rational is sensible, and if sensible is animated, man will also be animated. Similarly concerning the species: because if Socrates is man, and man is animal, and animal is substance,

Socrates will be animal and substance. But in the same way it is concerning property: because if man is risible, and risible is admirative, and admirative is suspensive toward the investigation of things, man will be admirative and investigative of things. And thus it is concerning accident: because if man is white, colored, or dispersive of sight, man will be of this sort. And thus it is generally in all. And this is why these five are univocally universals, and therefore whatever are predicated of the predicate, all are fitting to be predicated of the subject.

### CHAPTER II.

### *On the three things common to genus and difference.*

Having marked the commonality of all at once, let us speak of the common things to genus and difference, which are the first among the universals, as was held in the premises. It is said, therefore, that it is common to genus and difference, that each contains species in the ambit of its commonality : for difference contains species, although it does not contain all those species which the genus contains : and this is for the reason that difference is divisive, and through this, that it is divisive, it is posited under the genus, and is made less common than the genus. For rational, which is a difference, although it does not contain those animals which are irrational, which are constituted by the opposite difference, which the genus that is animal divided into rational and irrational as opposite differences con-

tains, nevertheless it contains many species, for it contains man and God or the gods, which according to the Stoics are species of animal. Which example indeed, although it be simply inconvenient, nevertheless we use it, because we do not discuss here the truth of examples, but we use them only for the manifestation of the proposed intention. But both genus and difference are predicated of many species, Avicenna says, which although it be not necessary, nevertheless is not impossible, because this is found in many. But the doubt which could arise from this has been solved in the preceding things both on the part of the genus and on the part of the difference : but it is certain what Avicenna says, that although it be not necessary, nevertheless it is not impossible: because this is found in many, that as much as is from the aptitude of nature, both genus and difference are in many species. But the second thing which is common to genus and difference is this, because whatever are predicated of the genus as the genus of the subject or of the species, and this by essential predication, are also predicated of these species which are under the genus itself. Similarly those things which are predicated of the difference essentially, as the difference of the difference of itself, will also be predicated of the species which is under the difference itself. But under the difference is the species constituted through the difference. But this is clear by example: for since the genus be animal, substance is predicated of the same as genus, and animated as difference : and not only of the same animal are

these predicated, but these same things are also predicated of these species

which are under animal down to individuals, of which also they are predicated, because those ultimate [individuals] of those species are the subjects. Similarly since rational be a difference, of this is predicated as a difference, what it is to use reason : which indeed to use reason is not only predicated of the difference which is rational, but is also predicated of those species which are under this difference which is rational, and of their individuals, and of man, and of the gods.

But what is said, that something is predicated of the difference as a difference, does not seem to fit those things which were said in the treatise on *Difference*: for there it is proved, that a difference does not have a difference.

But although a difference does not have a difference as a form, nevertheless a difference, since it is a natural power, has an act and an end : and thus compared to act and end, it has something predicated of it in the mode of a difference, and this is not contrary to those things which were said in the things held before.

Moreover, there is a third commonality of genus and difference, that when the genus and difference are taken away, it is necessary for the species which are under them to be taken away at the same time : for if there be not animal, it follows that there be not horse or man, and similarly if there be not rational, which is a difference, it follows that no one will be using reason, such as man, or God. And the cause of this sort is, because

the genus is the "what" and the substance of the species, but the difference is the essential form: and therefore when these are taken away, it is necessary for the species which are under them to be destroyed.

### CHAPTER III. ### *In what things genus and difference differ.*

But proper to genus and difference is that in which genus and difference are distinguished, so that it indeed fits the genus to be predicated of more than the difference : because since the difference is divisive, it accepts one part of those of which the genus is predicated. In this however also

from the species and property the genus is distinguished : because it is predicated of more than the species and property, since the species be predicated of individuals alone, but the property of the species alone and of those individuals which are under the species. The genus however as genus is predicated of those which are contained under opposite differences, and of more species than an accident : because since an accident is not individuated except through substance, it will be predicated of individuals of substance, not all : but the genus, and especially the most general one, is predicated of very many, both subalterns and most specific ones.

And this indeed is clear through induction and through example : for animal, which is a genus, is predicated of man, horse, bird, and serpent, which differ in genus and species of biped and quadruped and volatile and gressible and repti-

ble : but quadruped, which is a difference, is predicated only of those having four feet : but man indeed, because it is a species, is predicated of individuals alone, since it is a species and not a genus, and is the most specific species. And whinnible, since it is a property, is predicated of horse alone, and of those particulars which are under horse. But an accident also similarly is predicated of fewer than the genus, because it cannot be that one accident fits all things which are in the genus, as white, or black.

As for someone who insists sophistically against those things which were said, that the genus, namely, is predicated of more than the difference : I say that it is necessary to accept the differences by which the genus is divided: because those are true differences, it is clear through this because they are divisive of the genus, and constitutive of the species under the genus : for they received a part of the genus which they divide and posit under the genus, and therefore they are in fewer things than the genus itself.

Moreover, the second difference is, that the genus contains the difference in power, as was determined in the things held before. This indeed is proved through example: because the genus animal is two through predica-

tion : for it is both this rational [thing], and this irrational [thing], and it is predicated of both: but the difference is predicated of only one of them.

...tem, as man, is predicated only of those who are particular men. But a property which is risible

is predicated of man, and of those who are particular men. But black is predicated of the species of crows, and of those who are particular crows: which black is an inseparable accident. But to be moved is predicated of man and horse, which is a separable accident: but it is predicated first of the individual since it is an accident of the individual, but in the second place it is also predicated of the species which contain individuals.

Common however to genus and difference is: first indeed the containment of species, for the difference contains species, although not as many as the genus contains : for rational, although it does not contain irrational things, in the way that irrational things are contained in animal, nevertheless it contains man and God who are species of animal . Common also to genus and difference is, that whatever are predicated of the genus as genus, are also predicated of the species which are under it. And whatever are predicated of the difference, as difference, are also predicated of that species which is under it; for since the genus be soul [anima?], not only are substance and animated or living, which are genera of animal, predicated of the same genus as genus, but they are also predicated of those species which are under animal down to the individuals of the same species and genera. And since rational be the difference, there is predicated of it as a difference that which is to use reason: and this is not only predicated of that which is rational, but it will also be predicated of those species which are under the rational, namely, the

very act of using reason. It is likewise common to genus and difference, that when the genus is taken away and the difference is taken away, it is necessary for the species which are under them to be taken away at the same time: just as if there be not animal, there is not horse nor man: or if there be not rational, will be no animal that uses reason.

But proper to genus (which distinguishes genus from difference) is to be predicated of more than the difference, and species, and property, and accident. For animal is predicated of man, of horse, and bird, and serpent. But quadruped, which is a difference, is not predicated except of animals having four feet. But man indeed, since it is a species, is predicated of the individuals of man alone. And whinnible, since it is a property, is predicated of horse alone, and of those which are particular horses. And an accident similarly is predicated of fewer than animal, because it does not happen that one common accident happens to all. Lest anyone however insist sophistically against the aforesaid things, we say that it is necessary to accept the divisive difference by which the genus is divided, and not those which fulfill the substance of the genera in the constitution of species, just as act fulfills power. Moreover they differ in this, that the genus indeed in the ambit of its commonality contains differences in power. For animal, since it is a genus, is also this rational [thing], or that irrational [thing]. Moreover they still differ, because genera indeed are prior to the differences placed under them: on account of

which being taken away at the same time they take away the differences, but they are not taken away at the same time when the differences are taken away, for when animal is taken away, rational and irrational, which are its differences, are taken away. But differences being taken away do not take away the genus at the same time: for if all the differences of animal be destroyed, nevertheless the animated sensible substance can be understood: but it could not be understood, unless it remained according to intelligible being. Moreover they also differ in this, that the genus indeed is predicated in "what" it is (*in eo quod quid est*), but the difference in "of what sort somewhat" it is (*in eo quod quale quid est*), just as was said. Moreover they also differ in this, that the genus is one by the unity of the essence of the genus according to each species: for a species is not constituted except in one genus existing in itself, just as the genus of man is one, that which is animal. But differences are very many in the constitution of one species, namely the proximate and the remote, in man...

rational mortal, perceptible of the mind and discipline, by which man differs from other animals. Further also a genus differs from a difference in this, that in the constitution of a species, a genus indeed is similar to matter, but a difference is similar to form. But since there are also many other things common in which they convene, and proper things in which genus and difference differ, now for the proposed intention let those things which have been said suffice.

<!-- cap:1.4.5 -->
### CHAPTER V — *On the common and proper things of genus and species.*

But now the common and proper things of genus and species must be assigned. We say therefore, that a genus indeed and a species have it in common to be predicated of many things, through this that each of them is a universal which is in many and of many. But although such community convenes as much to the most general as to the subalternate genus, and similarly to the subalternate most specific species, nevertheless according as we here assign common things to genus and species, we intend that the genus be taken as a genus and not as a species, and the species be taken as a species and not as a genus: although compared to different things certain of these could be genera and species: therefore this most of all convenes to a genus which is only a genus, and to a species which is only a species: for although a genus taken as a genus is predicated of many things differing in species, and differing in number, and a species taken as a species is predicated of many things differing in number alone: nevertheless in this common thing genus and species convene, although they differ in mode: because a genus is predicated as a part, but a species as the whole being of those things of which it is predicated: but we do not care here concerning the different modes.

But in a second community again genus and species convene, that each is prior to that of

which it is predicated. And the cause of this is, because they are the essential principles

of those things of which they are predicated: but a principle by nature and intellect is prior to that of which it is the principle.

But they have a third community, because each of them is a certain whole to those things of which it is predicated: but a whole containing is towards that which it contains, nor is it predicated of it except as it itself is the notion of the whole, just as was very often said in the things previously held.

But with the conveniencies between genus and species having been assigned, it is also necessary to posit the differences: because those things which convene in all things, and differ in nothing, are the same and not different. But genera and species are different, and therefore it is necessary to distinguish their differences from one another. But they differ by a first difference taken from the ambit of their community, from the fact that a genus contains species under itself, but a species is contained and does not contain genera through such a mode of containment: although genera are contained in another mode, as namely an essential part which is contained like matter in the whole composite. And this is composed from the sayings of Avicenna. But the probation of this difference is, that a genus is in more things according to the ambit of its quantity than a species, just as is patent from the foresaid things.

But the second difference is, that genera according to intellect must pre-exist species. The

probation and cause of which is, because genera cannot perfect species, not being informed by specific differences. But since the formed constitutes something, it pre-exists it, just as copper pre-exists the form of a statue.

On account of which a third difference is concluded, namely that genera naturally, as a cause according to intellect, are prior to species.

From this again a fourth difference is concluded, that namely with the genera destroyed, simultaneously the species are destroyed, just as a corrupted principle destroys the principiate: but it is not converted, because just as was said above, with all differences and species destroyed, still the ge-

nus according to intellectual being: and therefore indeed a species since it is posited, also a genus of necessity is posited, from the fact that a genus is in a species in act and intellect: but a genus since it is posited, it does not follow altogether that a species is, because a species is only in potency in a genus, but with a potency posited, not on account of this is a being in act posited, because a being in potency is not according to act.

But the fifth difference is, because genera indeed are predicated univocally of species, from the fact that they give to them their name and substance and reason: which alone is called to be predicated univocally. But a species is in no way predicated of a genus by an ordered predication: for it is not predicated of genera except by accident, as when it is said, a certain animal is a man. But according to that which is not *per se*,

it is not a univocal predication although a certain animal may be a man, and the reason of a certain man may convene to the universal.

But further the sixth difference is, that genera indeed abound concerning species in the containment of those which are species under a genus: because according to the ambit of community species do not contain genera. But constituted species abound from genera by the containment of their proper differences, through which they are constituted: because those are contained in act in the species, since a genus does not have them except in potency, as was said in the things previously held.

But further another difference is in this, that a species according to any mode said whether most specific or subalternate can never become most general, because this is against the reason of the most general. But the most general is that, which since it is a genus, can never become a species: and similarly that which is in any mode a genus whether most general or subalternate, never becomes most specific: for this would be against the reason of the most specific, because the reason of the most specific is, that since it is a species, it can never become a genus.

But this whole is, just as Porphyry says. But a genus and a species

have it in common indeed (just as was said) to be predicated of many things. But a species is taken as a species not as a genus, if it were the same genus and species. But it is common to these, namely to genus and species, also that they

are prior to those, for a Greek genitive is posited for an ablative, of which they are predicated. It is also common to them to be a certain whole of those things of which they are predicated, such that each is a certain whole of its subjects.

But they differ from one another, from the fact that a genus contains species under itself by the containment of its community. But a species is contained and does not contain genera. And this is because a genus is in more things than a species, and therefore genera must pre-exist species, since they are formed in species by specific differences to this that they can perfect the species: whence also genera are naturally prior.

And from this it follows, that with these destroyed, simultaneously they are an interiment of species, although they are not simultaneously destroyed with the species destroyed. From this again it follows, that a species indeed since it is posited there is a genus, but a genus since it is posited, it does not follow altogether that a species is posited. And genera indeed are predicated univocally of species: for they give to them their name and the reason of their substance. But species are in no way predicated of genera, except by accident: for it happens to a certain animal to be a man. Further indeed genera abound by the containment of their community in the containment of those species which are under them. But a species abounds from genera by its proper differences, which it has in itself in act and intellect, constituting its substance. Further neither a species in whatever mode it is a species, will ever

become most general: nor a genus in whatever mode it is a genus, will ever become most specific.

But now the communities and differences of genus and property must be assigned according to the order of consequence. We say therefore that the first community or conveniency between genus and property is, that each of these predicables follows the species of which it is predicated. But we say "to follow" not according to nature, because thus a genus is prior to a species, but we say "to follow" according to the reason of consequence: for it follows if it is a man, it is an animal, and if it is a man, it is capable of laughter. But when a property follows a species, there is simultaneously with the reason of consequence also the order of nature and intellect: because the species is the cause of the property, and not conversely.

But the second conveniency of genus and property is, that both genus and property are not predicated according to more and less of the species of which they are predicated, of those which participate in the property itself. But here we take "to participate" largely, not properly: for properly their inferiors participate their superiors which are in their substances in name, essence, and reason, as Aristotle says; but here we take participation largely, according as then a property participates a species as its cause and subject: for equally and not according to more and less man and ox, which are species of animal, are participating in animal, which is a genus; and equally Cato and Cicero (who are individuals of

the species man) are participating in capable of laughter (which is a property of man), with participation said largely, nor do they participate in the property of their species according to more and less.

For the third conveniency is between genus and property, that it is common to them, because a genus is univocally predicated of all its proper species, such that it gives them its name and the reason of its substance according to the name by which it is predicated of them. Similarly also a property (of those things of which the property is predicated) gives them its name and reason: although a property gives its name and reason to its subject otherwise than a genus. For a property can be defined as a property, and then the subject is in the reason of the property. And if in this mode it gave its reason to the subject, it would be the same in the definition of itself, and the same would be predicated of itself. For capable of laughter, according as it is defined as a property, is a man apt by nature to laugh. If it gave this reason to the subject, then it would be said thus: a man is a man apt by nature to laugh. But a property can be defined otherwise according as it says a thing which is an accident ordinable in the genus of a predicament: then capable of laughter is apt by nature to laugh, and in this mode it gives its reason to that of which it is predicated. Whence this community of genus and property is taken in common, such that concerning the mode by which each, namely genus and property,

is properly and univocally predicated, there is no care as to the intention of this community.

But genus and property differ from one another in this, that a genus indeed is prior by nature and intellect to that of which it is predicated. But a property is posterior by nature and intellect to that of which it is predicated, that is, the species of which it is predicated. The proof of which is, because when a genus is predicated of a species, just as animal of the species of animals, as of man and lion, it is necessary that animal be prior as the principle of the species: and this is patent thus, with animal posited according to the intellect before it is accepted in the species of which it is predicated: from hence it is necessary that it itself be divided by specific differences, which are proper to the genus constituting the species. On account of which a genus is prior in act and nature and intellect than the species of which the genus itself is predicated. But a property, since it is caused by the species of which it is predicated and flows from the principles.

of the species, it follows the species according to nature and intellect.

**[Left Margin]:** The second difference of genus and property. But they differ by a second difference, that a genus must be predicated of multiple species. For there cannot be a genus which does not have multiple species, just as was determined in the treatise on *Genus*[1]. But a property convenes to be predicated of one sole species of which it is the property: because if it

convened to multiple things, it would not be a property with the reason of its name saved.

**[Left Margin]:** The third difference. But still there is a third difference, that a property indeed is predicated conversely of that of which it is the property: for if it is capable of laughing, it is a man, and conversely if it is a man, it is capable of laughing. But a genus is predicated conversely and universally of nothing taken individually of which it is the genus: which is patent, because it does not follow, if it is an animal, it is a man: nor does it follow, if it is an animal, it is capable of laughing: although conversely it follows, if it is a man, it is an animal, if it is capable of laughing, it is an animal. But between property and species it is conversely: because if it is a man, it is capable of laughing, and conversely if it is capable of laughing, it is a man.

**[Left Margin]:** The fourth difference.
Further the fourth difference between genus and property is, because a property is in every species of which it is predicated and in it alone and always. But a genus indeed is in every species of which it is predicated, such that it is predicated of every individual of it: it is also in it always, but it is not in that species alone, because it is in other species of the same genus, just as animal is not in man alone, but also in ass, and in lion, and in other species of brutes.

**[Left Margin]:** The fifth difference.
Further still the fifth difference is, because species indeed having been destroyed do not destroy those genera of which they are species,

because it does not follow, if man is not, that animal is not: but properties having been destroyed simultaneously destroy those things of which they are properties, and conversely, because with the substances or species of which they are properties having been destroyed, the destruction of those

properties follows. For it follows that if there is no horse,

there is no capable of whinnying. By these therefore a genus differs from a property.

But Porphyry and other ancients said this thus, that indeed it is common to genus and property to follow the species: for if it is a man, it is an animal, and if it is a man, it is capable of laughing. It is also common for a genus to be predicated equally and not according to more and less of those species (of which it is the genus): and a property to be predicated equally not according to more and less of those which participate in it with participation accepted largely: for equally and not according to more and less man and ox are animal, and Cato and Cicero are capable of laughing. But still it is common to them, namely to genus and property, to be predicated univocally of those of which they are; a genus indeed of its species, and a property of those of which it is the property, by that univocation of which it was spoken.

But genus and property differ, since a genus is prior to those of which it is predicated, as to species: but a property is posterior to those

of which it is predicated: for it is necessary that animal be prior in the being of a genus, and from hence that it be divided by the differences more of a property, and thus it constitutes a species. But it is necessary also that a genus be predicated of multiple species, but a property is predicated of one sole species of which it is the property. But still because a genus is predicated conversely of nothing, of which it is the genus, as convenes to a species or a property: for neither if it is an animal, is it a man, nor if it is an animal, is it capable of laughing. But a property is predicated conversely: because if it is a man, it is capable of laughing, and if it is capable of laughing, it is a man. Further a property is in every species of which it is the property, and in every individual, and in it alone, and always. But a genus indeed is in every species of which it is predicated and always: but not in it alone, because it is also predicated of opposite species. Further another difference. Species indeed having been destroyed do not simultaneously destroy the genera of which they are species. But properties hav-

...destroyed simultaneously they destroy the species of which they are properties. And this is because a property flows from the principles of the species, and the species is its adequate cause: since with a property destroyed, an effect convertible with the cause, it is necessary that the cause also be destroyed, and conversely with those species of which they are properties destroyed, it is necessary that the properties themselves be destroyed: because with the adequate

cause destroyed, it is necessary that the effect be destroyed.

### CHAPTER VII — *On the communities and differences of genus and accident.*

**[Left Margin]:** Conveniency of genus and accident. Consequently, we must deal with the communities and differences of genus and accident, according to which each is a universal. We say therefore that it is common to genus and accident, that each is predicated of many things, as has been said more often: for this belongs to each of them according to which they are universals. And this indeed fits as much the separable accident as the inseparable. For "to be moved," which is a separable accident, is predicated of many and of very many things. But "black," which is an inseparable accident, is predicated both of all crows, and of all Ethiopians, and even of some inanimate things, as of coal, and of putrefied oak, and of cut ebony, and many other things of this sort.

But although there are many communities of accident to genus, nevertheless those from the things aforesaid are manifest through themselves, as some say, such as not to be predicated conversely, and other things of this sort: for every crow is black, but not every black thing is a crow: just as every man is an animal, but not every animal is a man.

**[Left Margin]:** First difference of genus and accident. There is a difference between genus and accident, first indeed, because a genus as a principle is before the species of which it

is predicated: for although some accident may be inseparable, nevertheless according to nature that to which it happens is prior to the accident itself: for it is necessary that the subject be a being complete in itself, as Avicenna says, before there is an occasion or cause that an accidental being be in it.

**[Right Margin]:** Second difference. But the second difference is, because all those things which participate in genera as genera, participate in them equally and not according to more and less. And the cause of this indeed is, because they participate in them in the term, and because being is one which does not receive more and less. For a genus is the principle of being of those which participate in it. But accidents are present even unequally in those which participate: for the participation of accidents itself admits of intension and remission, from the fact that the name of an accident is placed in the term, either according to access to the true imposition of the name, or according to the intension and remission of the cause, which it has in the subject: for just as a white crow can be sub-understood through nature, so with the crow saved through nature a less black and more black crow can be understood. But the participation of genera in no way and in no mode admits of more and less on account of the causes which have been said.

**[Right Margin]:** Third difference. There is yet another difference, because accidents principally and immediately subsist in individuals: because the proper subjects of common accidents

are the individuals. But genera and species are more properly and naturally prior to the individuals which stand under them. For genera are the principles of species, and species are the whole being of individuals: and what is the principle of a principle, is also the principle of the thing principled.

**[Right Margin]:** Fourth difference. But yet another difference is: because a genus indeed is predicable in that which it is (*in eo quod quid est*) of those which are species under them (in which nevertheless genus differs both from difference and from property and from accident). But accidents which have absolute being are predicated in that which is a certain sort of thing (*in eo quod aliquid est quale*), namely quality and quantity. But those which have the being of comparison or mixed with comparison, such as relation, acting, and suffering, and other things of this sort, are predicated in the mode in which they have themselves (*in eo quod quomodo se habent*).

...each of those of which they are predicated. For if someone were asked, of what sort is an Ethiopian? he congruously responds because he is black. If however he were asked, how does Socrates have himself in the disposition of his body? he congruously responds because he sits or stands. If it is asked how he has himself in acting, he will say that he walks or does something else.

These therefore are the differences of genus and accident: and this indeed, just as Porphyry says. But it is common to genus and accident to

be predicated of many things (as has been said), whether from the number of separable accidents, or from the number of inseparable ones.

For indeed "to be moved" is predicated of many things, which is from the number of the separable. Black indeed, which is from the number of the inseparable, is also predicated of many things, as of all crows, and of Ethiopians, and of some inanimate things. But genus differs from accident, because genus is before the species according to nature and intellect, of which it is predicated. But accidents are posterior according to nature to the species of which they are predicated: for even if an inseparable accident be taken, concerning which nevertheless it seems less, yet the subject to which it happens is prior by nature than that which happens to itself. And genera indeed also in this differ from accident, that those things which participate in genera, participate in them equally and not according to more and less. But accidents, those things which participate in them, do not participate equally. For the participation of accidents admits of intension and remission. But the participation of genera in no way admits of intension and remission.

There is also a difference, because accidents indeed principally subsist in individuals (of which they are predicated), and then the individuals are prior to the accidents which are in them. But genera and species are naturally prior to the individuals of which they are predicated.

But there is yet a difference, that genera are predicated in that which it is (*in eo quod quid*) of species and individuals which are under them; but accidents are predicated in that which a thing is of what sort (*in eo quod quale aliquid sit*), or how each of those things of which they are predicated has itself. And this is proved by example: for you, asked what sort is an Ethiopian, say black: or asked how Socrates has himself in the position of his body or in action, congruously say since he sits or walks.

Genus therefore, in what it differs from the other four, has been said as much as suffices for the present intention. It happens or is consequent, after this to say how each of the others from the genus of universals differs from the other four universals from itself: for with any one of those five compared to the other four, all the differences will become twenty, because five times four are twenty: but always with the differences of the posterior ones enumerated, the differences of the posterior ones compared are overcome by one difference which those compared before have more than them: from the fact that that difference has already been taken or held for those compared before. But those compared in the third place are overcome by three. But those compared in the fourth place are overcome by four differences. It remains that there do not rest to be said except ten differences. But in the second place when a difference is compared to species and property and accident, that one is omitted which was of the difference to genus,

from the fact that that was held in the comparison of genus to difference, and the same is the difference of genus to difference, which is of difference to genus: then the following comparison is separated in one, and again the following is overcome by the preceding: for when a species is compared to property and accident, the comparison of species to genus and to difference is omitted, from the fact that those have already been held in the comparison of genus to species and in the comparison of difference to species. And thus concerning the others, because always the following has one less than the immediately preceding: and then all which are residue, do not become except ten, four namely in the comparison of difference to the others, and three in the comparison of species to the others, and two in the comparison of property to.

...others, and one in the consideration of the last universal and the comparison.

Or if these are numbered from the part of the things compared to one another, then first he compares the difference to the other three, and a fourth has been held before, which is the comparison to the genus. And thirdly the comparison of species is made to the other two, and two species of comparison have been held: one indeed the comparison of species to genus and the other the comparison of species to difference. And fourthly the comparison of property to accident is made, and three have been held, namely of property to genus, and of property to difference, and of property to species. But the last is the comparison

of accident which has four before it, namely the comparison of accident to genus, and of accident to difference, and of accident to species, and of accident to property: for a genus differs from difference, species, property, and accident.

Four therefore are all the differences of the genus itself to the other four. But in what a difference differs from a genus has been said, when it was said in what a genus differs from a difference. It remains therefore to say in what a difference differs from species, property, and accident, and there are three differences. Again, in what a species differs from a difference has been said, when it was said in what a difference differs from a species. It remains therefore to say in what a species differs from property and accident. These therefore are those two differences. But in what a property differs from an accident it remains to say, for in what it differs from genus and difference and species has been said in their differences to it. Therefore with four differences of genus taken to the others, three of difference to the others, two of species to the others, and one of property to accident, all the differences will be ten: of which four will be of genus to the others, as we have already demonstrated above. Concerning the others we will speak consequently.

### CHAPTER VIII ### *On the common and proper things of difference and species.* We say therefore that it is common to difference and species to be participated in equally and not according to more and less by their inferiors. And this is manifest through examples: for man

which is a species, particular men participate in equally and not according to more and less, and similarly they participate in rational which is a difference not according to more and less. And the cause of this has already been assigned above: because namely a species is the whole being of individuals, and a difference is a part of the being of species and individuals, and it does not receive more and less: for if it received more and less according to being, either something would be added or diminished from the being or to the being; then the being would not be the same as before, which is false and impossible.

But it is common by a second community that species and difference are always present in those which participate in them, and are not altered by them, as alteration occurs in accidental forms. And this will be said here by example: for Socrates is always rational, and Socrates is always a man. For that habitude which is of a particular to an essential universal, whether it be a whole being as a species, or be a part of being as a difference, is perpetual. And therefore Avicenna and Algazel say, that this is always true: "Socrates is a man," and this: "man is an animal," and "animal is a substance," and every that proposition in which the predicate is of the reason of the subject and is closed in its intellect.

But if someone should thus infer: man is always an animal, or animal is always a substance, and being a man or being a substance does not diminish from being, as when it is said, "a dead man": therefore if man is always an animal, man

always is. It is patent that it does not follow, and there is there a fallacy.

simply and according to something: because when it is said, a man is always an animal, what I say *always*, does not say except the sempiternity of the habitude of the subject to the predicate: and the conclusion is inferred as if it says sempiternity simply. Nevertheless Avicenna and Algazel say another cause of this consequence: for they say these are *per se*, this man is a man, and a man is an animal, and an animal is a substance, and they are always true on account of the cause which was said, because namely the predicate is enclosed in act and intellect in the subject. But if it is inferred, a man is a substance, therefore a man is: they say it does not follow, because that is, is the same as in act: and this happens, for to be in act happens to that which is said, a man is a substance, whether a man is in act, or is not in act, this is always true, a man is a substance.

With the conveniencies of a difference and a species assigned also their proper things must be touched upon. We said already that the proper thing of a difference is (by which it differs from a species, although nevertheless each of these universals is an essential predicate) because a difference is predicated in that which specifies 'what kind' something is. But it convenes to a species to be predicated in that which specifies 'what' it is. For although common man as a quality is sometimes taken (just as a common thing whether a genus, or a species signifies a certain 'what kind': which from the opposite according

to some mode is taken to this something) nevertheless not on account of this simply will it be a quality of something, just as a difference is the quality of a genus, and a property the quality of a species, and an accident the quality of an individual: but it will be a certain quality according to humanity according to that which differences (which are essential qualities) arriving to a genus have constituted a species as what kind it is: for every common thing in this mode a certain 'what kind', is constituted by the quality of its common form.

Further the second property indeed is by which difference and species are distinguished, that a difference since it is general, as was said in the things previously had, often in multiple species is considered, just as also a genus,

just as a quadruped is considered as a universal in multiple animals differing in species. The cause of which Avicenna and Averroes say is, because such a difference is posited for a genus, and is a circumlocution of a genus: but a species which is a species and not a genus, is not considered according to being in multiple things differing in species, but only in those individuals which are under the same species. For if a species is taken as a subalternate genus, then not here but in the things previously had the difference of a difference, and of such a genus was posited: and therefore here he does not speak except of a species which cannot be a genus.

Further the third difference is, because a difference indeed by nature and intellect is first or

prior to that species which is constituted according to the difference itself, just as an essential principle is prior to the principiate. The probation of which is, because it is prior in this mode from which the consequence of subsisting is not converted, as with rational removed which is the difference, man is removed which is the species: with man destroyed or removed, it does not necessarily follow that rational is destroyed, since still with man destroyed God is according to the Stoics a certain rational thing. And what here can be objected concerning an ultimate convertible difference, already in the previously had treatise on *Difference* was solved. Avicenna nevertheless says all these things are said through ignorance by Porphyry.

Further the fourth difference indeed is, that a difference is composed with another difference principally for constituting a species. And this is manifest by an example: because rational and mortal one with another is composed in the constitution or composition of man, or in constituting the substance of the name. But a species is not composed with a species so that it may beget some species which is the same in the substances, or supposits, or individuals of those species, just as a difference is composed with a difference for constituting the substance of a species, which has the same supposits, which one of the two differences has.

For the supposits of rational and mortal are the same. For although a certain horse may be mixed with a certain she-ass for the generation of

a mule, nevertheless a horse if it be taken simply or universally, and be mixed universally in the species of she-ass, never perfects a mule.

But as to what is said here that a difference is composed of a difference, it must be known that it is impossible if each of the differences be taken as an ultimate act: but if one be taken as imperfect and in potency to the other, then the first is like a genus to the other, and the second is like an act and perfection, and then it is possible. And this is what Avicenna says, that two differences not of the same order convene to the constitution of a species: of which one is prior, and the other posterior, just as rational which is more common than man, and mortal which is taken posterior in the same rational nature is determining to the species of man. But as to what is said that species do not convene, it was said for this reason because a species is that which is perfected in an ultimate act in those which are formally perfect: and from two things perfected in act nothing can become in any nature. And what is said concerning a horse and a she-ass convening, that a mule is made, this occurs in many other animals, just as in the dog, and the fox, and others, which are near according to complexion, such that one tempers the seed of the other, just as by the coldness of the she-ass the heat of the seed of the horse is tempered and of those whose time of impregnation is the same. And then also, as Avicenna says, they do not convene to the constitution of an animal whose individuals are convening with the individuals of the other of those species, just

as the thing constituted from two differences is the same with the individuals of both of those differences, because the individuals of a mule do not convene with the individuals of an ass nor with the individuals of a horse. But as to what some say, and Porphyry seems to say, that namely a certain horse and a certain she-ass convene to the generation of a mule, and that horse simply and she-ass simply convene to the generation of this mule, it was said very inconsiderately: because even horse simply with mare simply do not convene to the generation of this horse: for actions and operations are not of universals, but only of particulars: and universals are not generated except by accident, or by consequence in the generation of particulars. For simply universals are ingenerable and incorruptible. This therefore is what the ancients said concerning the common and proper things of difference and species: for this is patent from their words.

For they say thus: It is common therefore to difference and species to be participated in equally, and not according to more and less by those of which they are predicated: for particular men participate in man equally, and similarly in the rational difference. But it is common to them also to be present always in those which participate in these: for Socrates is always rational, and Socrates is always a man. But it is altogether proper to difference, to be predicated in that which it is of what sort (*in eo quod quale sit*): but a species is predicated in that which it is (*in eo quod quid sit*). But if man should be

taken commonly as a quality, nevertheless he will not be a quality simply and absolutely, but according to that which the differences coming to the genus constitute the species man: for thus he is "of what sort somewhat" (*quale quid*), and not simply of what sort or a quality: because the "what" (*quid*) of the genus is formed by the difference in him. Further they have another property by which they differ, because one difference, divisive and common, is considered in more species in which it is in act and simultaneously: just as quadruped is considered in more animals differing in species. But a species which is only a species, is considered in only those individuals which are under it. But yet further they differ, because a difference is first or prior to that species which is constituted according to it: a sign of which is, that rational being taken away simultaneously destroys man: but man being destroyed does not destroy rational, since there is still God with man.

not existing. But indeed further still they differ, that a difference since it is general, and not ultimate and convertible, is composed with another difference. For rational and mortal composed one with another, as potency and act are in the substance of man which is a species: but a species is not composed with a species so that it may beget some other species. And if it is objected concerning an ass and a horse in the generation of a mule, we say that a certain ass is mingled with a certain horse for the generation of a mule, but

a horse simply convening to an ass simply never perfects a mule.

### CHAPTER IX.

*On the commonalities and differences of a difference and a property.*

<!-- cap:1.8.9 -->

Now let us say the differences and common things of a difference and a property. Therefore a difference and a property indeed have a common thing in the first commonality, that equally and not according to intension and remission they are participated by their supposits of which they are predicated: for each of those is participated in the term, on account of the fact that one, namely a difference, is a formal part of being itself, which (just as was said very often) is one and does not receive more and less: but a property from the aptitude of a natural potency is formally imposed: which aptitude in potency is completed by a habit, and not the act which is an operation, since it is the major completion by which a potency is completed by a habit, and it says its thing in the term: and therefore it cannot sustain more and less: although, just as in the things previously had it was said, it can have impeding or expediting things to an act in the substance, by which it may act more expeditiously or less expeditiously through that potency: but these do not vary the potency standing in a natural habit: therefore these two are participated equally by those which participate them. For those which are rational

(of which rational is predicated) equally and not according to more and less are rational, and

similarly those which are risible (of which risible is predicated) are equally and not according to more and less risible.

Further also in this they convene, that each, namely a difference and a property, are always and to all or universally present to those of which they are predicated: because according to the potency and aptitude of nature they are attributed to those of which they are predicated and not according to act. For although he who is naturally a biped may lack one or both feet, not on account of this does the formal substance perish in him by which he is formed to have two feet, but rather that which by such a nature is formed to a biped, is always called a biped through the aptitude of nature, just as also risible from a natural potency completed with a natural habit is always called risible, although he may not always laugh according to effect, nor does he have more natural potency in act when he laughs, than when he cries. If he has it otherwise and has had it to something, he always is in an equal aptitude which he does not exercise according to act.

But the property by which a difference from a property is distinguished, is that some difference, which namely is not ultimate and has the name of a true difference, is always said of multiple species just as also a genus. And this is proved by an example: because rational which is a difference, is predicated of a man, and of God according to the Stoics and Epicureans, who posited there

to be many rational gods and goddesses. But a property is not predicated except of one single species of which it is the property, and of the individuals of that species. And all these things are plain from the premises.

Still also they differ in this, that a difference indeed follows universally to those of which it is the difference without conversion just as a genus: for it follows, if it is a man, it is rational: but it does not convert, because if it is rational, on account of this it may follow to be a man according to the Stoics. But properties are conversely predicated of those of which they are properties: for if it is a man, it is risible, and if it is risible,

is a man. And these things indeed almost under the same words Porphyry said, and therefore it is not necessary to posit his words.

<!-- cap:1.1.10 -->

### CHAPTER X.

### *On the commonalities and differences of a difference and an accident.*

**[Drop Cap] B**ut to a difference and an accident, as Porphyry says, it is common to be predicated of multiple things insofar as each of those is a universal: for this indeed convenes to every universal insofar as it is in many things, and of many things. But to an inseparable accident specially a difference has commonality, because namely both a difference as well as an inseparable accident are always present to all those of which they are predicated. Which is proved by an example and induction: because a biped is

always present to crows, since it is a difference predicated of crows and men: also to be black, which as an inseparable accident is predicated of crows, is always present to crows, although it could also become a white crow either by age or by art: nevertheless because a crow not only names a species, but in such a complexion, which is the cause of blackness, the material subject is designated, and this accident with such a subject named is always an inseparable accident.

In this also a difference and an accident differ, because a difference indeed contains in the ambit of its commonality those things of which it is predicated. For to contain is to enclose those things of which it is predicated within its commonality: therefore a difference contains and is not contained by those of which it is predicated. For thus this difference which is rational, contains the whole man and his particulars. But accidents neither properly nor truly, but in a certain mode contain certain of those things of which they are predicated according as they are in multiple things, and exceed those of which they are predicated. But in a certain mode they contain, because the subjects of those things of which they are predicated, are not all susceptible of these but

of very many things: and they contain all those in which they are in, and are exceeded by those in which they are not in. For white is predicated of white men and in a certain mode contains them, but of non-white things it is not predicated: and some man is non-white, and a certain white thing

is not a man, because it can be in another subject than in man. Therefore when it is said, man is white, man is contained: but this containing is not proper, because to contain is of substantial form: and therefore an accident insofar as it is form contains, but insofar as it is a fluid accident, it has being and is contained by a subject. And the speech indeed of Porphyry is obscure, but this intellect which I said I think to be truer.

But there is still another difference between a difference and an accident: because a difference indeed is not intensible and remissible, just as is patent from the supradicted things, where also those things are solved which are objected against this dictum. But accidents sustain more and less, on account of the fact that they have material causes, and according to themselves they do not name their thing in the term. And these things are altogether plain from the supradicted things.

But still there is another difference, that contrary differences are impermiscible to the constitution of some species: for from rational and irrational not any one species is constituted. But contrary accidents are mixed to the constitution of another, just as if contrary colors and flavors were mixed to the constitution of a middle.

And if it is objected, that also contrary colors have contrary differences and species. *It must be said* that concerning this mode by which colors and formal differences of colors are considered, through which color is ordered in the genus of quality, here he does not speak, but rather con-

cerning the material being of an accident as it is a universal predicated of those things which are denominated by it. But thus it is constant that it receives intension and remission through the admixture of a contrary or of contraries, or depuration, on account of the fact that whiter is in this mode more unmixed with black,

as is said in the fourth [book] of the *Topics* [1]. But when it receives more and less, it sometimes receives that which has receded from a contrary, just as a bad [thing is] worse which has receded from the good. But sometimes because it has approached towards a term, as a good [thing is] better which is closer to the supreme good: but sometimes according to the admixture of a contrary, as a white [thing is] whiter, as has been said. Therefore of this sort are the commonalities and properties of a difference, and of the rest of the universals.

### CHAPTER XI. ### *On the agreements and differences of species and property.*

After this it follows to speak of the agreements and differences of species and property: for in what a species differs from a genus and from a difference was said before in the chapters in which we said how a genus differs from the rest of the universals, and how a difference differs from the others. We say therefore that to a species and a property it is common to be predicated of each other in turn: which is patent through an example, because if it is a man, it is capable of laughter, and conversely if it is capable of laughter, it is a man: the cause of which conversion

is, because a species by its substantial principles posits the aptitude, which is a property, just as a proximate and adequate cause posits an effect. Similarly the aptitude itself which is a property, leaves such a subject, and posits it just as a proper effect and [one] adequate to a cause posits its cause. This also makes the property which is capable of laughter, therefore because it is not said according to the act of laughing, but it is said according to the aptitude according to which it is born: and this aptitude is always in the subject of the property, as has already often been said in the preceding things.

But the second agreement is to be participated equally, and not according to more and less by those which participate in the species: and similarly properties are equally participated by those of which they are properties: nor here do we do this in participation most properly so called: for we say broadly that to participate is that which something has in itself, and to be participated is that which is in another, whether it be in it per se or per accidens.

But with all these common things of species and property assigned, those in which they differ from each other must be assigned. We say therefore that a species indeed in this differs from a property, because that which is a species to one thing, can be a genus to another: but this is not true of the most specific species: but a property since it is a property of this species which is most specific, it is impossible for the property to be of other species: yet if it were a property of a subal-

tern species which is a genus to another, it would not be impossible for it to be a property of those species which are contained under it, as Avicenna says. Whence in this difference Porphyry takes species not most specific, which he did not do in the assignment of other differences. But he refers property to the most specific species, although he previously posited the subaltern: and therefore what he says is not sufficiently said according to the art.

But the second difference is, that a species indeed through the intellect and nature subsists before in being and substance than a property: but a property [is] posterior, with the species already taken according to being, it becomes in the species from the principles of the species already subsisting in nature. But this is proved by an example: because it is necessary for a man to be first so that from that the capability of laughter may be caused, and therefore man is received in the definition of the capability of laughter, just as a subject is received in the definition of a passion.

Further, the third is the difference, that a species indeed is always actually in the subject of which it is predicated: because it is participated actually, since it is the whole being of that of which it is predicated: but a property sometimes is actually in, but in the power of aptitude it is always in. Which is taught by an example: because Socrates is always actually a hu-.

operating and acting, but he does not always laugh, although from the aptitude of nature he is always risible.

But further fourthly they differ, because those of which the terms or definitions are different, those defined things themselves are different: but the definition of every species is, that it is under an assigned genus, and the definition of a most special species is, that of multiple things differing only in number in that which specifies 'what' it is it is predicable, and other things of this kind which in the treatise on *Species* were said: but of a property that which is truly a property, the definition is, that it is present to it alone and to every one and always: which definitions are different. But this difference therefore we posit here, lest they be believed to be the same through essence a species and a property, on account of the fact that they are conversely predicated. These therefore are common and proper to a species and a property.

<!-- cap:1.5.12 -->

### CHAPTER XII.

*On the conveniencies and differences of a property and an accident.*

But to a species and an accident it is common indeed, that they are predicated of multiple things insofar as they are universals. But other commonalities between a species and an accident are none, on account of the fact that very much they differ from each other that to which it happens as a species, and that which happens according to the mode of being: for that to which it happens, is a substance; but that which happens, is an accident: which differ just as a being *per se*, and a being not *per se*, but in another.

And if it is objected that between things distant by much mostly conveniencies must be sought, *It must be said* that this is true if they were found; but because in nothing they communicate, therefore special ones are not found, but only that one is found which is general of all.

But multiple differences are found. For the properties by which they are distinguished are of each, because to a species indeed it convenes, that in that which specifies 'what' it is it is predicated: but in that which specifies 'how' it holds itself, it con-

venes to an accident which is mixed with respect and composition to something and to all other predicaments.

But another difference is, that it happens to every individual substance which is properly a substance, to participate only one species indeed, which is the whole formal being of it: for with one existing which is the formal and whole being, there cannot be another which is the whole being, but it happens to every substance to participate multiple accidents both separable and inseparable, just as lastly is patent in many examples.

But still a third is a difference, because a species indeed can be subunderstood existing in itself from its substantial principles before the accidents which are in it, although they also be inseparable. The probation of which is, that it is necessary to suppose the subject to be complete in itself, so that to it afterwards something may happen. But accidents for this that they may

be, before themselves suppose to be a subject, because with respect to the subject they are beings of a posterior genus and of an adventitious nature: because they are of a posterior genus. Therefore they are called accidents as if falling to (*ad cadentia*), because they fall to a subject, because they are of an adventitious nature: therefore they do not arrive and flow from the intrinsic.

But still the participation indeed of a species by those subjects is equally, and not according to more and less: but an accident is participated by those of which it is predicated (even if it be an inseparable accident) according to more and less, not equally. For it happens that an Ethiopian with respect to another Ethiopian has an intense black color, or a black remiss in blackness: and therefore of the common things and properties of a species and an accident it has been said. It remains therefore to say the common and proper things of a property and an accident: for by what a property differs from a species and a difference and a genus, was said in their differences to it.

<!-- cap:1.8.13 -->

### CHAPTER XIII. — *On the common things of a property and an inseparable accident, and their differences.*

We say therefore that it is common indeed to a property and an inseparable accident, that those subjects of theirs never subsist besides them in which they are, and of which they are predicated, and in which they are considered to be in, which is patent: for just as besides risible (which is a

property) man does not subsist who is the subject of which a property is predicated, thus besides blackness an Ethiopian never subsists, provided that an Ethiopian by his name imports the complexion of an Ethiopian causing blackness, as was said in the things previously had. And of this indeed the cause is that which is the second commonality of a property and an inseparable accident, because just as a property is present always and to every, thus also an inseparable accident: for it is present also always, although it may not be present to alone as a property, on account of which also it is not conversely predicated.

But other commonalities are to certain things, just as not essentially being predicated in what kind of multiple things, just as through the things previously had it is already constant. But a separable accident does not have a proper commonality except in what kind, and not in what being predicated: but

this already in those things which concerning all the universal common things simultaneously already had been said.

But the ultimate two universals differ from each other in this first, since a property is present to one single species of which it is the property, just as risible is present to man. But an inseparable accident, as black, is not only present to an Ethiopian, or only to a crow, but also is present to coal and ebony, and to certain others: thus a property does not determine a subject for itself.

But further the second difference is, that a property is conversely predicated and equally, not according to more and less of that of which it is the property: but an inseparable accident on account of the fact that it does not determine a determined subject for itself, is not conversely predicated.

But further just as was said in the things previously had, the participation indeed of a property by its substances is equal and not according to more and less. But of accidents this indeed is a participation according to more, that however according to less, on account of the causes determined in the things previously had.

But there are also other commonalities indeed and properties of those universals which have been said: but these which have been said may suffice for their discretion from each other and the tradition and doctrine of their commonality which they have to each other.

<!-- cap:1.9.1 -->
### CHAPTER I.

*How all these things coincide into one.*

Although in the things previously had it has already been determined that which Porphyry handed down concerning the five universals, nevertheless there are still certain things which it is useful to know concerning those things which from the logical doctrines of the Arabs Avendar the Israelite Philosopher translated into Latin, and mostly concerning the logic of Avicenna. The first chapter of this doctrine is concerning the

comparison of those five among themselves, and these things we posit to the perfection of the doctrine. We say therefore first concerning the first universal which is a genus, that it is not of every single thing or of all things, but the genus of that alone, which is a species under it: similarly also a difference is not the difference of every single thing, but according to this that it is divisive, it is not a difference except of the genus which it divides: and according to this that it is constitutive, it is the difference of that species which it constitutes under the divided genus.

But it must be known that each one of these can be a genus or quasi a genus to another, each one can be quasi a species, and each one can be quasi a difference, and each one can be quasi a property, and each one quasi an accident. For sensible is quasi a species of this which we call apprehensive. For every sensible is apprehensive and it is not converted, namely that every apprehensive is sensible or sen-

sitive. And this sensible itself is a certain genus to hearing. For every hearing thing, is sensible and it is not converted. And similarly it is the genus of smelling and tasting and touching, and this sensible itself is a difference of animal. Similarly gressible is the genus of biped and quadruped, and it is a species of mobile, and it is a property or property of animal and a common accident of man. But sometimes these five coincide in one alone according to the thing, and therefore all these five into one and the same sometimes coincide: although their mode of being predi-

cated according as they are diverse universals is never one.

And also it must be adduced that a genus is not the genus of a difference in any mode, nor can a difference be a species of a genus. For if a difference were a species of a genus, since a species is not made a species except through a difference, then the difference would need another difference through which the species would be made and then a difference would be of a difference, which cannot be: for a difference is a certain intellection or notion, which according to intellect is outside the matter of the genus: for rational is not the same as an animal having reason, but it is the same as a certain thing having reason, although through consequence it follows that it is an animal: for an animal having reason is a man. But if animal were through intellect enclosed or conceived within the reason of rational, then when it would be said, a rational animal, it would be the same as if it were said, an animal which is an animal having reason, which are the same according to their intentions. But when a difference is predicated, it is just as when an inseparable accident is predicated of that of which it is predicated. For a difference holds itself as an accident to a genus, insofar as it follows the being of the genus: and the being of a difference and the being of a genus is not one, but a genus is to a difference quasi holding itself as matter, and the comparison of a difference to a genus is in a certain mode just as of a property which does not compete to every, and this is an inseparable

accident, as was said in the things previously had. But a difference constitutes a genus and gives to it a distinct being in effect. But although the difference itself is not within the definition of the genus, and the being itself of the difference is not within the being of the genus, just as the being of 'what kind of' things is within 'what kind', and the being of 'how much' things is within 'how much', nevertheless a difference is a quality of the genus, and the genus and the being of the genus is in the difference just as within its essential 'what kind'. For a difference is a quality of the genus, just as form is a quality of matter, making it 'what kind' according to substantial being. But this holds itself thus when a difference is absolute and simply a difference of a genus: thus that in no mode is a difference outside the nature of the genus, but it is of the nature of it just as act is of the nature of potency: because if act were not of the nature of potency, potency in no mode would desire act.

But if it is diligently and subtly attended what a genus is and what a difference is, then not altogether truly are a genus and a difference predicated, except of a species: because in a species a genus is in act, and a difference is the act of a species giving being. But the comparison of a genus to a difference is just as the comparison of a subject to an inseparable accident, which is not a common accident, on account of the fact that it is a consequent, if it is as a property which convenes to every and not alone. But a common accident sometimes by comparison to a genus is

a property, and sometimes by comparison to a species is a common accident: just as to be moved by voluntary motion which is called processive motion, which is a property of animal and a common accident of man.

Also sometimes a common accident is a property of a superior genus just as whiteness which is from the properties of a terminated composite body, and it is a common accident of man: sometimes it is of the properties of a most general genus, and sometimes also a common accident is not a property of any genus, on account of the fact that it happens to another which is outside that genus, or also it happens to that which is outside all that category according to the order of predicable things of that most general or predicament: an example of which is that which is not to receive more and less, which is of the commonalities of man according to the participation of the species, and it is common to him and to many others, nor is it a property of any man, for other most generals have this. But the comparison of animal to this animal, when a singular designation is added to animal with rationality not considered in this animal which makes him a man, is just as the comparison of a genus to its proper individuals, which it has from itself and not mediating a species: for then animal is predicated of this animal immediately, as a species is predicated of its individuals immediately: and then it is not predicated as a genus, for the predication of a genus is of things differing in species: animal therefore is a genus in comparison to singular

animals according as they are made rational or constituted in another species.

Similarly also rational compared to this rational with animality not considered in this rational, is predicated of it as a species, according to the intention which we said, that a difference sometimes is taken as a species, and then it is not predicated as a difference. For a difference is of singular animals differing in species. But we said that this rational is considered with animality considered. Similarly also risible is predicated of that risible not considered according as it is man: for it is not a property except of man and individuals. But still risible compared is a predicate as a species. Similarly also

white which is commonly an accident to this white designated in the singular, is a predicate just as a species and not as an accident. For a common accident is not an accident, except to that which is its subject denominated by it so that it is said by it to be white: but it is not an accident to this white if the subject in which it is is not considered, for it is compared to that as a species.

<!-- cap:1.2.2 -->

### CHAPTER II. *How all these five universals are mixed together with each other.*

But it is necessary to know that these five not only all or many coincide into one, but also they are mixed together with each other in a certain mode. And this happens in many ways. For a genus is mixed sometimes with a difference. For "apprehensive" is just as a certain difference of man which is "rational". For every rational

[being] is apprehensive and it is not converted. And similarly "animated" or "having a soul" is the genus of the rational, and it is predicated in [the sense of] "what" of the rational: and then it is the genus of the difference. And it is patent that it happens to it as a difference of a superior genus: for "animated" is the difference of body which is one of the middle genera. Sometimes also a genus is mixed with an accident, just as color which is the genus of those things which happen to man, which are such as whiteness, and blackness, and of this sort. But this composition or mixture differs from the first: for it cannot be thus, that the genus of a constitutive difference be the constitutive genus of a species: but it is necessary that the genus of an accident be the genus of the accident constitutive of the species of the accident itself. Therefore the genus of a difference is sometimes the constitutive difference of a genus or species, and besides this the genus of an accident is sometimes of the genus of an accident, and sometimes of the species, just as this "apprehensive" itself is the constitutive [principle] of an animal having apprehension through spirit or intellect, and color is of the accident of animal and man, since it is the genus of special colors. But the mixture of a genus with a property is just as "admiring in act", which behaves as a genus to "laughing in act": and then "shouting from appetite" behaves as a genus to "capable of neighing", which is the property of a horse.

But a difference sometimes is mixed with a genus, just as "sensible" which is the difference

of things capable of walking is mixed with the rational. It is also mixed sometimes with a property, just as the comparison of three [angles] to two right angles of a triangle, which has three angles equal to two right [angles]. For this is the difference of that which is the property of a rectilinear triangle. But sometimes it is mixed with an accident, just as "disruptive of sight", which is the difference of whiteness, which happens to sight.

A property also sometimes is mixed with a genus: for "capable of walking" is the difference of animal which is the genus of man, and it is a property for man which convenes to all [but] not only [him]. Also sometimes it is mixed with a difference and with a species: because if a property of a species is lacking, and since the species is more common than the property, this happens when the difference was more common. An example of which is "to be divided into two equals", which is of an even number. But sometimes it is mixed with a common accident: for "visible" is the property of the colored, but "colored" is a common accident to the common.

But an accident sometimes is mixed with a genus, nor on account of this does it cease to be an accident of the species: for it is an accident of the species, nor yet is it a common accident to the genus, but it is a property of the genus: and it is something which is a common accident to both, namely to the genus and the species, and with this also similarly an accident of the difference and the property.

<!-- cap:1.2.3 -->
### CHAPTER III. *How these five are certain natures, and how universals, and how intelligibles, and how simples.*

But it must be attended to, that all.

five can be considered triply. For if they are taken in themselves, thus that the thing or nature itself be taken without any respect composite to it, and the simple nature itself be considered, thus these five are certain natures, and principally genera, and species which can be followed with an absolute intellect: nevertheless of the others it is true when that which is a difference is not taken in the reason of a difference, but in the reason of a being or of a certain nature: and this is true of a property when that is taken which is a property not in the reason of a property, but in the simplicity of a certain being: and this also is true of an accident when it is taken as a part of a being, and not in the reason by which it adds to a substance. Thus therefore these pre-taken things are certain natures, as Avicenna and Alfarabi say.

But if they take these predirected things according as to that simple nature is added an aptitude to this that they be in multiple inferior things, then those already are made universals, because a universal from having an aptitude is called a universal, and not from the act by which it is actively made a universal. Whether but this aptitude be in the thing which by its simplicity is apt to exist in multiple things, and through the multiplication of a dividing difference, or through the division of matter in multiple things

is actively made: or it be in the intellect alone, thus that nothing of the nature be in multiple things, but the intellect alone takes the similitude of one nature to the same nature in species in another and assimilates it in itself, was a question. And the first mode indeed those said who were called *realists*. But the second mode these said who were called *nominalists*. And this for the present is not to be dissertated: nevertheless in the preceding things in the common treatise on *universals* this we sustained which the realists said. But in whatever mode, it is patent that a simple nature is not a universal, but a nature taken in such an aptitude.

But this same nature taken in the light of intelligence, of which it itself is a certain splendor and ray, according to what we say, that every simple form or nature

is a splendor, and a ray of intelligence in the soul similar to itself in spiritual being, or intellectual being, on account of the fact that the nature itself through the intellectual nature which is in it as its essential part, operates to spiritual being, just as light in a transparent thing operates color according to spiritual being, which nevertheless in a terminated body it operates according to its material being: on account of the fact that the acts of active things are in well-disposed patient things according to the possibility of those receiving those acts, and not according to the potency of the agent. This mode therefore these five either are simple natures, or universals, or certain intellects existing in the soul.

But it must be known, that these five taken in the light of intelligence are without all multiplicity, but through this that in singular things they are terminated to matter, they are divided according to being, and thus they act multiplicity through this that in whatever they are according to the whole being of themselves and according to the whole essence, and thus indeed according to themselves they are before all multitude. But through this that in sensible things and in matter they are made to the quantity of the act of intelligence operating in nature, through this they are made many according to diverse multiplications of a species or individuals.

If therefore they are taken in themselves, they are simple natures, and neither singulars, or universals. For if in a simple nature they had that they were universals, since a simple nature is not except one, a universal would not be except one, nor could it be in many things, and of many things, which is against the reason of a universal. But if from a simple nature they had that they were singulars, a universal could not be except one singular, and all other things similar to it would not receive the predication of it, which again cannot be. From a simple nature therefore they neither have that they are universals, nor that they are singulars, but they have this from the respect which is added to the simple nature, as was said.

But further according as they are simple and separated natures, neither are they in the intellect, nor outside of it, but according as they are

in the light of the active intelligence, and making all forms by its light, thus they are as moving the potential intellect which is the soul: and through these things by the intellectual soul converting itself to them they are made in the soul, provided that there is not an impediment in the intellectual soul, as it is understood just as an adept one: and thus it takes the universal which is in the intellect: and therefore it is necessary that that nature be separated and abstracted from sensible, and material, and particular things, and taken in the light of intelligence alone, of which light it itself is the splendor and effect. And when the intellect composes with it the aptitude of existing in multiple things, then it takes it as a logical universal, and ratiocinates concerning it just as concerning a universal. And through the opposite of that it takes a particular of it, when it composes with it those things which determine it to this and that matter, and the individuating things, the collection of which in multiple

things cannot be found, and through which this designated something is affected.

And thus that simple nature in a fourfold being is taken, namely in the being of a simple nature, and in the being of an aptitude to many things, and in the being of the light of intelligence of which it itself is the splendor, and in the being of a designated individual through individuating things: and therefore it has the reason of a nature through the first, and it has the reason of a universal through the second, and the reason of a speculative intellect through the third, and the

reason of a particular and an individual through the fourth. And although this to first philosophy pertains, nevertheless we posited it here, so that the doctrine may be more perfect, and because certain principal Arabs posited this in the doctrine concerning universals. Since however the first act of reason is to ordinate the dictable things, as we said in the things previously had, already we have executed the reasons of the ordinable things: but concerning the dictable things to be ordinated in genera, and species, differences, properties, and accidents, successively we will attain to treat thoroughly.

<!-- LIB:2 -->
# BOOK II — ON THE PREDICAMENTS.

*<!-- tract:2.1 -->*
*## TRACT I — ON THE ANTECEDENTS TO THE SCIENCE OF THE BOOK OF PREDICAMENTS.*

<!-- cap:2.1.1 -->
### CHAPTER I — *On the intention of the book, and the order, and the mode and other things which are accustomed to be asked.*

In the things previously had it was said that logic is a science by which it is taught how through a known thing one may arrive at the notion of an unknown thing. And this happens in two modes, according as there are two things which when they are unknown we desire to know, namely a complex thing and an incomplex thing. And an unknown incomplex thing cannot be known except by a definition, or by whatever

notion. But an unknown complex thing cannot be known except by argumentation. It was said also to this, that reason (which is a power complexing one thing with another) cannot arrive at an instrument by which it may elicit the cognition of an unknown thing from a known thing, except by three acts, which are to ordinate one thing to another, to compose one thing with another, and to collect composed things according to a discourse which is made from one thing into another. For thus and not otherwise it will take the cognition of an unknown thing through that which is known.

The first act therefore which is to ordinate one composable thing with another, is perfected in two modes: and the order itself is made in two modes. The first thing which is demanded to the act of ordinating reason is the reason which is taken from the form itself of the ordinable things, and this reason is drawn from a universal and a particular: for through this that a universal is that which is in multiple things, and of multiple things, the reason of the order of a predicate to a subject is taken: and concerning this already as much as pertains to the present intention it has been determined. It follows therefore now to determine concerning those things which according to the premised reason are to be ordinated to each other according to genera, species, differences, properties, and accidents: for this alone is in which the ordination of reason is perfected. And therefore here the ordinable things to be subjected and to be predicated are to be

ordinated and determined according to all their diversity, which consists in the ten genera of predicable things or predicaments.

But since already in the antecedents to logic it was proved, that to the science of an unknown thing through a known thing one does not arrive, except through an ordinated speech to signify-

inquiring, whether a man inquires within himself through interiorly disposed speech, or inquires with another through speech exteriorly brought forth, it follows of necessity, that the order of predicables cannot be determined, except according as a predicable has to be designated under a word. For we cannot use things that are inquisitively unknown, because they are neither finite to us, nor present: and therefore it is necessary to use signs and words. On account of which it is necessary to consider the predicables according as they are signified by words: on account of which Boethius says that this science, namely of the book of the Categories, is concerning the ten first words signifying the first genera of things: for order is not in the things themselves, but it is necessary that reason posit the order, just as it also makes the complexion and collection of composites.

And from these it is plain what the subject of this book is: for the subject is that which is orderable in the notion of a predicable or subjectible, according as it stands under a word signifying such an order. And thus it is patent how this science is one from one subject.

But the parts of this subject are the orderable things according to the diverse mode of predicating in substance, and accident, and in accidents according to all nine genera of accidents. And thus an infinite multitude is restricted into ten genera, as Boethius says: but the ten into two predicables, namely substance and accident: and the two into one predicable, namely ordered to composition according to the notion of a predicable, or determined from universal and particular, or subjectible and predicable. From this also it is patent what the cause of the undertaken work is: for a predicable is not composable with a subjectible, except through the order of one to the other, and therefore it was necessary to determine concerning the orderable things themselves in genus and species.

It is also patent what the ultimate end is and what the proximate end is. For the ultimate is so that from ordered things the notion of composition for an enunciation may be taken, which alone among orations signifies the true: and a further end still is, so that from composites the collection of a consequence of one from another may be elicited, through which the science of the complex which is unknown may be taken. But the proximate end is, which is the term of the work, so that science may be had of orderable things according to every genus, according to which there can be a diverse mode of predicating, or a diverse order of a predicable to the subject of which it is predicated: which science of the book of Categories is the proper end.

But the mode of this science must be taken from the end: for that mode is to be chosen, by which in the proposed matter one can arrive at the end of the intention. It is therefore (since it is concerning incomplexes) definitive indeed according as it proceeds from things prior according to nature: but divisive according as it notifies that which is prior through its posterior things which are in it. And the first indeed, namely the definitive, notifies the substance and being of a thing. But the second, namely the divisive, notifies the power of a thing: because a thing is not perfectly known, unless it be known according to being and according to power. But the third mode, not on account of the scible, but on account of him who seeks to know, will be added by us, and was added by predecessors so that the doctrine may be easier, and that is positive of examples.

But there is a doubt of certain people, whether concerning genera (which as Porphyry says are the first principles of things) science can be had? because science is the habit of a conclusion demonstrated through causes and principles. Since therefore these are the first principles of things, there are not others prior to them through which passions may be demonstrated of them. And thus concerning these it does not seem that science can be given, but in science they ought to be suppositions. But to solve this is not difficult: for these according to the thing, and according as they are certain natures and parts of being are first principles: according as they are something

predicable or orderable in a genus according to this or that mode of predicating or subjecting, thus they are not considered as principles, and they have many.

properties and passions which are demonstrable of them: and in this mode we will deal with them here. But insofar as they are parts of being and principles of the diversity of things, the first Philosopher deals with them thus, as he who posits his intention in studying Metaphysics can know: which does not pertain to the present business which the Logician has to consider.

**[The Author's mode of proceeding.]** Thus therefore treating of the predicable according as it stands under a word designative of the predicable orderable according to a diverse mode of predicating in genus and species, we follow as in others the sect of the Philosophers who are called Peripatetics, and especially Aristotle who is reported to have been the prince and first inventor of this sect, nonetheless adding whatever well-said things we shall be able to find from those [who came] after: for we will proceed both through the mode of science and through the mode of art. In the mode of science indeed in this that we will consider the subject and the principal parts of the subject, showing what passions are in them, and properties from principles proper to this science. But we will hold the way of art in this that we will collect principles tending to one end of the work: which work indeed is the ordering of predicables to the end of composition and the intellection of a syllogism,

through which one can arrive at the notice of the unknown through the science of the known, as we have often said. But now let us approach the proposal, for it suffices to have pre-tasted many things.

<!-- cap:1.1.2 -->

### CHAPTER II. How it is premised concerning equivocals, univocals, and denominatives, and what equivocals are.

**[Why it is necessary to treat of equivocals, univocals and denominatives.]** Since therefore in this [it] must be dealt with concerning the predicable how it is to be ordered in a genus, and the predicable is reduced into a triple common, namely into being and the one, into which it cannot be reduced according to one account: and into a common which is common as a genus which receives the predication of its universal according to name and account, which indeed is univocal: and thirdly into that which is common as a subject of which an accident is predicated, which is not predicated of the subject, except according to denomination: it is necessary for us to premise concerning these three, so that afterwards it can be more easily seen what is contained in what just as in a genus, or what is reduced to another just as to a subject, or what receives the predication of name and thing.

**[Why he deals first with equivocals, secondly with univocals, and thirdly with denominatives.]** But because the first of all things which is predicated is being, which is not predicated univocally of all things, as was said in the

science of universals, therefore first it is necessary to speak of equivocals. And again on account of this so that it may be known what is not predicated of what as genus, or species, or difference, or property, or accident, although the univocal be before the equivocal, as the one before many: nonetheless according to the intention of this doctrine the equivocal is before the univocal, because through the equivocal a predicable is reduced to being and the one which is before every genus. But through the univocal it is reduced to everything which is common as a genus. But through the denominative or through its account all the predicates of an accident regard substance. And through these three commonalities, the universality of all predicables returns to the predication of one common in some mode, and all things which regard one subjectible, it is necessary that they regard it in some of the three modes.

I say therefore, because it is true what was said in the science of universals, that if anyone calls all beings equivocally, and will not name them univocally, it is necessary to premise concerning equivocals. **[What equivocals are, and why they are so called: and the explanation of their definition.]** Equivocals therefore are called [those] of which only the name is common, but according to that name the account of the substance is diverse. They are therefore called equivocals as if having the name (which is according to the word) equally as far as the imposer is concerned. And therefore it is also added, that they are called and are not, because that which

is in the speech is common to them: but in the being which is said through the name, there is no commonality according to.

...an equal participation: for although an equivocal says many things in actual multiplicity, nevertheless nothing of all those is participated in equal participation by those which are signified in the name: for which reason they are called equivocals, because having the name equally, they do not receive the being of the name in equal participation.

For which reason it is also added, *of which only the name is common*: for the name, although it is called as it were a "noting" (*notamen*), because it makes some note of a thing with respect to the act of the one signifying and imposing the name, because the one imposing the name has been affected according to some property of the thing when the name is imposed: because also the signification of the thing which is intended through the name gives form to the name. Nevertheless, these things are not among those intrinsic to the name itself according to what the name is solely, but rather intrinsic to the name are such a lettering or composition of the name out of letter and syllable and accent, which are intrinsic to the name as it is a name. Which things already being perfected with respect to the substance of the name, then first the name refers to that by which he has been affected, or what he who imposed the name conceived: and therefore in equivocals only the name according to what consists in the sound of letters and syllables and

accent is common, and without equal participation of any thing which is imported in the name: and for this reason it is called an equivocal.

And although perhaps primarily one thing is imported in an equivocal, and others not primarily, nevertheless, because the many things said in the name do not participate in that name by equal definition, it is also some species of equivocation: and this is what is added in the definition of equivocals there, *the definition of substance is diverse according to that name*. For every name signifies something for substance, and something for quality, since every name signifies substance with quality: and indeed that upon which the name is imposed is its signified substance: but the property of the same thing or substance which affects the imposer while he imposes the name, is the quality signified through the name.

When therefore the name is the same in respect to those things which belong to the name in letter and accent: and that which is signified in the name is not the same or equally participated by those upon which the name is imposed, nor is even the property from which it is imposed entirely the same, although perhaps it may refer to one thing: then the name is equivocal, because the definition of the substance to which the name is imposed (which is the substantial definition from which the name is imposed) is thus in two ways according to something or simply diverse: for some substance (as we have said) is according to something by the mode that it stands

under the definition, to which the name itself is imposed: and its definition is diverse when it is not thoroughly the same: and still that from which the name is imposed, which is the quality of the name, and the substantial definition which is given concerning the name according to that which the name is. When therefore that also is not thoroughly the same, again the definition of substance, that is, the substantial definition of the name, is diverse: so that nothing of the thing to which the name is imposed equally participate in the things signified through the name.

From which it is clear that there are many modes or species of equivocals. For there are equivocals the same indeed according to the thing, but not equally participating, that is, through the same definition equally given concerning all, but rather having a certain mode of it (of which the definition is given): just as being is said equivocally of all beings existing through themselves and in another, because being through itself is alone the being of nature, while the others are certain modes of that being and not true and principal beings. In this mode healthy in an animal, and urine, and diet, and medicine is said equivocally: because healthy is the nature of the animal: but the others say a certain mode of health, significative and conservative of health, or as perfective of health, or having themselves in some other mode which is in the animal. For if a doctor is said equivocally concerning him who operates perfect medicine (which is in him), and concerning the old woman

imitating a doctor, and concerning the enema which perfectly executes the operation and act of the doctor as an instrument,

...and concerning certain other modes participating in some mode: thus also being and one are said equivocally, because being and one primarily is that which is through itself being and one: while the others are called being and one because they are referred to it as to a subject in some mode of entity, or as a measure of it, or as a disposition, or as a respect, or in some other mode, which are in it as in a subject. And indeed this mode is called manifoldly said according to analogy, or proportion to one which is principally signified in the name.

But another mode of equivocals is those which Boethius (Boetius) calls equivocals by chance and fortune, namely when the same name is imposed on diverse things by chance and fortune, the substance of which to which the name is imposed is not one nor of one thing looking to one, or even of diverse things looking to one: but nevertheless the quality by which that name is imposed on diverse things is one through a similitude of translation, like "dog" (*canis*) which is imposed on the barker, and on marine things, and on the celestial: and the substance of them to which the name is imposed is not one, but diverse in proximate genus and species. And the property or quality from which the name is imposed is not one except through a similitude of translation. For example, to be biting, which is fitting for everything that bites with teeth: but through

translation it is fitting for that which bites by a hurtful quality and respect. Thus therefore it is clear how they are equivocals, of which only the name is common, and the definition of substance according to that name, namely the thing signified, is diverse, that is, it is not thoroughly the same and equally participated, not according to more and less.

Nevertheless there are those who oppose sophistically against what has been said, saying that the signification of a name is a perfection giving species and being to it, as it seems. And therefore a name is called as it were a "noting" (*notamen*), because it makes a note of a thing, and is defined through signifying, when it is said that a name signifies substance with quality. But if it is so, then when the signification is changed it seems that what gives species and form to the name is changed: but when the species and form are changed, that which is specified and formed is changed, and thus when the signification is changed, it seems that the same name cannot remain. And these things especially seem to be in those that are said relatively to each other, just as when a sign and its proper signified are changed, it seems necessary for the sign to be changed, because its signification will be in vain and empty, when it is not referred to the signified. But this especially seems to be the case in vocal expressions and names: because vocal expressions are notes of passions and conceptions which are in the soul: but things are the causes of the passion and conception of the soul: therefore it seems

that the passions and conceptions of the soul are changed when things are changed. But when the concepts and passions of the soul are changed, it seems necessary for the vocal expressions (which are signs of concepts) to be changed. This and very many similar things can be objected, which are all resolved by a very light solution, provided that those things which have been said are well understood.

It must be said therefore that the name has as matter the vocal expression in which it is formed: but it has as form the lettering which the act of the imposer gives for signifying this or that. And this matter and this form always remain in the name as long as it is a vocal expression and a name: and this remains the same always in common in an equivocal according to name and the matter of the name. But what is signified is sometimes called signification, and indeed this remains the same in natural signs: but in those that are according to pleasure (*ad placitum*), it is sometimes diverse, because pleasure is not standing and having causes in one mode: and because of this, although the name remains the same according to its proper matter and proper form, it is not necessary that it have the same signified thing: and therefore it is not necessary that there be the same relation of such a sign to the signified thing, but the relation can be diverse.

Since however anyone instituting a sign refers [it] to the act of signifying, although he does not refer it to this that it signifies the same thing, and a name is a word referred to the act of signifying,

but a word [as such] does not have that relation: therefore it is not said in the definition of equivocals, that equivocals are called those of which only the word is common, but of which only the name is common, so that the act of signifying through institution may be imported through the name, which is said as making a mark: which would not be imported through a word. And because the signified is the second perfection of the name, to which it is referred as a sign, therefore it can be changed with the name not changed: and when the signification is changed, it is necessary for the relation of the sign to be changed to the signified: and thus the name will be equivocal with the name remaining one and the same according to the first and substantial matter, and according to the first and substantial form, and not [the form] definitive of the substance named through the signified of the name. And the substantial account given through the quality (by which the name is in such a signified substance) is another and another according to that name which is referred to signifying these two for signifying such things through one and the same name.

But an example of this convenient to the proposed intention is just as an animal is called a man, and as an image is called which is painted to the image of a man or animal: for although Zeno says in his logic, that there are many modes of equivocation, nonetheless one and the first mode is closer to the univocal, which is of the manifoldly said through analogy or proportion to

one and from one: just as all things are equivocal in being, and just as an animal is a man and that which is painted: for the painted is called an animal, whose similitude may be transformed from one [and] the same, and when the painted is referred to the natural animal according to a certain mode of representation, just as being is truly one, and others are beings said from that, and to that according to some mode of entity of the nature of being related to that.

This is therefore what Aristotle says, that equivocals are called [those] of which only the name is common: nonetheless according to that name the account of the substance is diverse, as animal [is] a man and that which is painted: for of these only the name (which is animal) is common, but according to the name which was imposed for signifying, the definitive account of the signified substance is diverse: for if anyone assigns through a proper definition what according to quiddity and being each of them is separately, by which or by what property they are called animals, he will assign a proper definitive account for each separately and not one common to both: for of man he will say, that he is a rational mortal animal, but of the painted that it is an image representing a man through the similitude of lineaments and color. And through this therefore it is patent that the predicable cannot be reduced to the account of a genus, because it transcends every genus and is the principle of all genera.

But what we say here that equivocals are called [in the plural], and we do not say that an

equivocal is called in the singular, although yet there be one name through its proper form: the reason is because here we intend concerning the predicable or incomplex speakable according as it is orderable into a genus or a common univocal, or predicated of one through denomination: and these are things not absolute from words or dictions, but signified through words: and because the things are many referred to the same name, therefore we speak more and more competently in the plural, than in the singular: for equivocals are things equivocated under one name. And that it is said, "only the name is common," we intend to exclude the account of the substance designated through the name: which substantial account is when it is given through those things which are of the substance, which are genus and differences. From these it can be patent, why equivocation on account of the actual plurality of signifieds operates multiplicity: but concerning this it will be treated in the *Elenchi*.

Still however because in the equivocal there remains the same form which is the act of signifying.

[the act of signifying] at the pleasure of the institutor according to a respect to something of the signified thing, which was the account for instituting that sign, it is easily patent that in every equivocal, as we have said, there is something of the univocal through which the equivocal has to be reduced to a single thing: for when placing one sign for signifying diverse things, it is necessary to look toward something one, which in

some way is in those things which are diverse in substance and in the account of the substance. These things therefore thus said are equivocals, and concerning these what has been said suffices, as far as it pertains to the present intention: but it will be thoroughly treated concerning others in the *Elenchi*. However, it is to be noted that although in the definition of equivocals it was said that the account of the substance is diverse, nonetheless the account of the substance is not called a true definition given through genus and difference, but generally any notification is called an account, which is of greater and better declaration than the name itself placed absolutely. And the account being accepted according to this mode, individuals have an account and equivocation in one name: since nonetheless their account taken from a collection of accidents is not one according to that name in which they communicate. These are therefore the equivocals, through which all things are reduced not to a genus but to the things transcending every genus, which are being and one, as Aristotle says.

### CHAPTER III — *On univocals.*

But univocals are those through whose account the predicable is ordered in one genus, which gives its name and definition to the things subject to it: and without this account of the univocal there would be no reduction of predicables to one genus predicated of all those things which are of that genus: and therefore it is thus defined by Aristotle that univocals are called those of which the name is common, and according to

that name the account of the substance or definition is the same. And they are called univocals through the opposite mode to equivocals, namely things univocated in one name, so that the thing itself may be referred to being said and to speech, because otherwise it would not be logical what is said: because the thing considered in itself, not according as it stands under a diction, pertains not to the logician, but to the Philosopher. And therefore it is added, "they are called," and it is not said, "they are univocals." Still however because speeches are finite as far as we are concerned, but things are infinite, as Aristotle says, it is necessary for several things in one genus and species and number to be signified according to a mode. When therefore several things in one nature (which is the cause of the imposition of the name) agree in one name, those will be univocals. And because there are several things named by one name, therefore they are more conveniently called univocals in the plural than univocal in the singular. But as for what is added, "whose name is common," the name is said as a mark [notamen], which is of the thing which is the cause of the imposition of the name in its several [members]: for this nature is one in all of those, and not participated through prior and posterior: on account of which such a name is simply common to all of them, naming nothing in one which is not named in the other.

But as for what is said, "and the account of the substance is the same," the account of the substance indeed says two things, just as before in

the definition of equivocals: for the account says not only the definition, but also any declaration whatever which is given concerning that which is named through the name, as it also says the form from which the name is placed, which it is necessary to be the same: and so, both the name and the nature and the account of the imposition of the name will be one in such as such: and the account of the substance is the substantial account adding at the same time in those which are univocals: and that that nature in them be participated equally which is not according to more and less, nor according to prior or posterior in them, but in one way just as being is one. Because if it were to admit of more and less, it would not be one altogether, just as in the things previously held [it was].

determined in the book *On Universals*. For although nothing is compared, except through something one which is in them, nonetheless that one which is in them, according to more and less, cannot be of their being. And therefore its account is not the account of their substance. For their substance consists in the participation of a genus and the participation of a difference, which are the act and power constituting the substance, because the terms of substantial being are the being of all those things which are, just as man is called an animal and an ox is called an animal: so that the name animal makes a mark of one nature which is equally in man and ox, which nature indeed is sensible animated substance: and therefore if the nature or substance which

is said through a name just as a common name be explained, the account or definition thus explaining the name will be equally common to both: whence if anyone assigns an account of both, namely of man and of ox, according to this that they are animals, that is, according to the nature of which the common name which is animal makes a mark, he will of necessity assign the same definitive account of man namely and of ox. And similarly it is concerning Socrates and Plato in this name *man*. And this is in all things which are predicated under the same name as genus or species, or as difference, or as property, or as accident, as Avicenna and Algazel say: for if it be said, Socrates is white and Cicero is white, if the account be taken according to the common name, the predicated of Socrates and Plato will be one and the same account. The same [is true] if I say Socrates is capable of laughter, and it will be the same if I say Socrates is rational: and that it may be said generally, everything which is predicated as a universal of many and of the things subject to it, is said univocally.

[but there] are diverse forms, and therefore, as they say, diverse things cannot have one name. To which it is most lightly answered, that of diverse things in that they are diverse, there are diverse forms, and diverse names imposed with those forms. But nothing prohibits diverse things, not in that in which they are diverse, but in that in which they are one, from having one name, just as they have one form: and therefore nothing prohibits diverse individuals in the form

of a species from having one name of the species: and those which are diverse in species, nothing prohibits from having one form of a genus, and therefore from having one name of the genus: and thus it is in other things. And therefore it is necessary, that according to that form of which the name makes a mark, diverse things have one and the same definitive account of that substance. For that definition does not say more explicitly than that name [says] implicitly.

But if against this anyone still objects saying, that it is impossible for there to be one nature or form of a genus in several species, and thus it be impossible for there to be one name of a genus, which is said of several things differing in species, this is proved through this which is said, one and the same does not have contraries at the same time in act. But the nature of a genus is one and the same: and therefore if it is in several things differing in species in act, and [there is] one and the same account, one and the same in act has contraries at the same time: for it has rational in man and irrational in the ox or ass, and since this cannot be, there cannot be one name of a genus in man and ox. But these things seem to be confirmed through this that Aristotle says, that the account of animal according to each animal is another and another: it is false therefore that there is one name and one account.

But it is not difficult to solve these and similar things. For we say that one nature of a genus is in diverse things differing in species and in number. And that it is said, that the same does not have

contraries at the same time, is understood of the same in number and not of the same [in].

genus or species. And this indeed has already been determined in the things previously held in the book *On Predicables*. And that Aristotle says that the account of animal according to each is another, is to be thought thus: the account of animal according to each, that is, according to the being which it has in each singly, is another: for this is true not only in a species, but also in an individual: because thus animal is not accepted as the essence of a genus, but as it has a special or singular being in a species or in an individual: but thus it is not a genus, because it is in that only, and not outside it in another, and therefore thus it is not in universal being, but [in] particular: because although this which is in one, be in another [as] universal, nonetheless not according as it is in one is it in another, as has been determined in the treatise *On Universals*. It remains therefore that those are univocals whose name is common and the account of substance the same.

But it is to be attended to, that although multivocals or synonyms and diversivocals are not of those by which a predicable is ordered in the line of a genus, for the reason that synonyms look to one particular or special thing through diverse properties which are signified in it by many names: but diversivocals, just as the names are diverse, so they are attributed to diverse things; nonetheless because Avicenna and Algazel and John Damascene place these in their Categories, we also shall place them here, not for the neces-

sity of the science but for the perfection of doctrine. There are therefore multivocals or synonyms when many names are attributed to one thing, as *ensis, mucro, spata, gladius* [swords], or Marcus, Tullius, Cicero: for by these names the same thing is signified according to diverse properties which are in it. But diversivocals are when diverse names are attributed to diverse things, as wood, man, stone, and the like. But we do not need these for the necessity of this science, in which (just as Euclid does in geometrical things) we do not premise anything except definitions of those things which are required for the ordering of a predicable to the one which is first predicable or speakable in that order, just as is a transcending principle which is in all principles, and just as is the most general: for on account of the first it is necessary to place the account of equivocals, but on account of the second the account of univocals is necessary.

### CHAPTER IV. — *On denominatives.*

But because, as Aristotle says, all genera of accidents are reduced to substance, as to the one subject of all others through the predicable which among universals is called an accident, and this cannot be done except through a denomination made from a principal: on account of this, in this science in which we intend [to treat] concerning the order of predicables, it is necessary also to premise the definition of denominatives. We say therefore that denominatives are called whatever things, differing by case only from some principal, have an appellation according

to a name inflected to a case, as from grammar (which is the principal name of the science of letters for speaking correctly and for writing correctly) "grammarian" [grammaticus] is said through an inflection which is in the mutation of the end. For when it is called "denominative," on account of the composition of the preposition *de* [from], there is noted the transition or diversity which is between the denominating essence and the denominated essence. And therefore those which are of the same nature do not receive the predication or appellation of denomination, and therefore man is not called "human" from humanity, but is called essentially man and rational animal, and all things which are predicated according to essence. And because also the property is essential, although it be not of the essence, therefore.

...it is not congruously said that a man is "risibilitated" (*risibilitatus*). Also in accidents according as they are ordered in their genera and species, they do not receive the definition of denomination: for whiteness is neither called white, nor is it called colored, but it is called color, and thus of all others. But when an alien nature which is after the being of another, is understood and signified as it were posited around, namely composed by the congregation of one nature to an alien one, then denomination happens, as when it is called a white man, or white, which is a white thing. These therefore, like univocals and equivocals, because a multitude of essences are signified, are more competently defined in

the plural, so that they are called denominatives, rather than in the singular, so that it is called a denominative.

And it is added, *they are called*, because the whole of what we intend here is referred principally to the saying and not to being, just as in the preceding matters. And what is added *whatever*, signifies the indefinite multitude of accidents from which there is denomination. And what is said *from some*, denotes the name of the accident according as it is signified in its purity and principality. For Avicenna says [1], where he treats of the soul, that the intellect of an accident is absolute, although the being of an accident is dependent. And what is subjoined, *differing only in case*, here *case* is called any inflection of a name according to the end of the name or diction: whether it is made by derivation, or it is made by declension, as from justice (*justitia*) is derived just (*justus*), or saying it more truly, from justice is formed just. Although according to grammar justice is derived from just, nevertheless according to the nature and definition of denomination and the denominated, just is formed from justice. For the grammarian attends to the modes and forms of names: and because in declension "just" (*justus, justi*) is thus declined, by adding *tia* it becomes justice: therefore he says justice is formed or derived from just: for in this mode just cannot be formed from justice. But the nature of denomination is on the contrary: because the denominating thing is an alien nature...

...informing: and therefore the name of that nature must be pre-understood, so that by the end being otherwise inflected in the diction a denomination is made, just as just is called falling through the inflection of the end from justice, and white from whiteness, and thus it is from all others. But this inflection is made at the end of the diction, and not at the beginning, because the inflection of the end does not change the principal signified thing, but only the mode of signifying, as is clear in every declension when cases decline from the nominative (straight), and from each other according to the order of cases. But a case at the beginning of the diction would change the whole signified thing and not only the mode of signifying: just as if it were said justice, prudence, and the like, in which there is the same termination but a diverse beginning, and therefore a diverse signified thing. And this is noted by this that is said *differing only in case*: for through this they do not differ in the principal signified thing, but in the mode of signifying only. In denomination therefore these three are necessary, namely an alien nature proportionally fitted and posited around a subject from without, the same thing signified in the principal and the denominative, and diverse modes of signifying.

But as to what is added *according to name*, it is understood according to the mode of the name which is the inflection of the end, which is called case. And as to what is added *they have an appellation*, through this that is said *they have*, a habit applied extrinsically is noted. And what

is called *appellation* (which is called as it were an appulse, and is composed from the preposition *a* and *pello, pellis* "push, strike") notes that an alien strike is upon that which is denominated, just as a proper name is properly called an appellation, because it is pushed to signify it from a collection of accidents. For a common name is called appellative on account of this, because in it many are pushed into one, and therefore it is common of many. But a truer example is, as from grammar (*grammatica*) which is the principal name, a grammarian (*grammaticus*) is formed through the inflection of the end, and from fortitude (*fortitudo*) fort (*fortis*) is formed, and thus it is in all other accidental denominations.

From these things however which have been said it is patent, that in substantials there cannot be denomination: for substantials alone pertain to the same nature [of the subject]. And if it is objected that in substantials some things are signified concretely, but some abstractly, as man and humanity: in which man seems to be derived from humanity through the inflection of a case. It must be said that this inflection has been made to the similitude of an accident and not from the nature of the thing itself: for man is not predicated of the things subject to it as derived from another, but is predicated as the substantial being of that of which it is predicated: and therefore this mode of understanding cannot be placed in the thing, but is imagined and feigned through simulation to an accident, so that the form may be signified,

and the formed in that which is formed through the form; this therefore is the denominative.

### CHAPTER V. — *On the division of orderables and non-orderables in a category.*

But since some things are orderable in a category, but some not in one but in several, but some indeed neither in one nor in several, it behooves us here to place a division, so that we may know which things pertain to the order of predicables, and which to the non-order, but composition, of predicables. For predicables are things accepted through the intellect. This intellect therefore can be simple intelligence, or a simple intuition through the intellect: or a composite intellect, joining and composing one thing with another. And the division is taken according to these two, that of those things which [are]

are said and stand under a diction of the intellect, some indeed are said without complexity, but others indeed are said with complexity. For although all things are incomplex, nonetheless the intellect cannot signify the composition of form with matter or of predicate with subject, except through a marked complexity. But complexity is the designation of one thing with another or in another: as when it is said, "man runs" or "man conquers": for in these voices is noted that running is in the man and victory, as an act is in an agent. And the composing intellect makes this complexity: and it is not in the thing by way of composition, which would be intermediate between the acting man and his act. But those things which are without complexity are exem-

plary, as when we say by itself "man", and by itself "conquers", by itself "runs", as has been sufficiently said in the treatise on the antecedents to logic, where the complex and incomplex were defined. But the incomplex conceived under a voice is orderable in some category. But the complex pertains to the composing intellect according to the nature of composition.

But we shall premise another division according to that account mentioned, according to which one thing is placed in the same or a diverse category. And we shall give this fourfold [division] founded upon two twofold divisions. For of the predicables which are ordered in a category or to one subject, one is substance, another accident, another universal, another particular. And there is universal accident, and particular accident: and there is universal substance, and there is substance which is particular through the conjunction of the dividing members in the two divisions introduced. And therefore there results a fourfold division, that of those things which are in their nature and quiddity, some are said of a certain subject and are not in any subject, as universal substance, as universal man or a species [said] of a subject,

that is, it is said of that which is cast according to its whole line, when man is said of some man, as when it is said through a vague individual, "some man is a man": or through a signified individual, as when it is said, "Socrates is a man." But it is in no subject, just as an accident is in a subject which has the subject as the cause of its being: for

when man is predicated of some man, the predicate is the cause and essence of the subject, and does not receive the cause of its being from the subject. But others through opposition to these are indeed in a subject, but are said of none as of a subject in an ordered predication: but if they are said of any, it is as an individual which is predicated of itself.

And so that it may be better understood, in explaining we say what it is to be in a subject. For those are in a subject whose dependence according to being is on the subject: and these are those which when they are in something, are not in it as a certain essential or integral part: because they contribute nothing to the being of the subject in which they are: and it is impossible for anything of this kind to be in act without that in which it is, because from that in which it is, it receives being which it does not have outside it, just as an accident which rather is being than essence. And an example of this is a particular accident, which is not individuated except through a subject, as a certain "this grammar", which as in a subject is in the soul, or in a certain soul having in itself the science of grammar. But of no subject is it said, because it is not predicated except by a particular predication which is not an ordered predication. And similarly a certain white or this white as in a subject is in a body or a certain body. For every color is in a determinate body: because, as is said in the book *On Sense and the Sensate*, color is the extremity of the perspicuous in a determinate body. But of no subject is it said since it is partic-

ular. But others are said of a certain subject and [are] in a certain subject.

[They] are, as a universal accident, as science in a subject is in the soul, because it is an accident of the soul: but of a subject it is said as of grammar, of which it is predicated as a genus of a species. But others are neither in a subject, nor are said of a subject, as a particular substance, as some man or some horse: for none of these which are particular substances is either in a subject, or is said of a subject: for simply and universally those which are individuals and singulars according to number, that is, which are one in number, are not said of anything as of a subject, since in descending they are the last nor have they under them [anything] of which they might be said. Nothing however prohibits that some of them be in a subject, when they are particular accidents: for a certain grammar, as that of Donatus, is in a subject in the soul of Donatus. By this division, therefore, are known those things which in a genus are universal, and the particular in the same, which are predicated as accidents in both genera, and those which are predicated as particulars.

But if it is asked, what is this division? It can be said that it is similar to that of a genus into species. But when a common [thing] is divided, it is rather said of those things which are than of those which are said, because those things are rather according to being than according to being said: because to be thus or so in another is the cause of that which is to be said or to

be predicated. And those things which are in a predicamental line, as genus and species, and not the individual, are accepted according to this division. And those things which are outside a genus are also accepted, as accidents, and those which are predicated according to accident, just as those things which are in the genera of accidents are predicated of a subject.

But if it is objected that the subject in this division is not accepted in one and the same account, because the subject of an accident and the subject of a universal do not stand under in one way, nor have one and the same account of standing under: We say that one and common account of standing under is in both, but the special [account] is not one: for in this it is one, that the subject founds and sustains the predicate in itself as to true being: which is to be in act in nature. For thus both the second substance is in the first, and the accident in the subject. But it differs in the special as to this, that the second substance is the cause of the essence and being of the first: but the subject is the cause of the accident according to the being which it has: but the division according to the parts which it has, makes known which and in what way they are located in the predicamental line, as has been said.

All these things, therefore, as certain definitions, are premised to those things which will be said of the order of the predicables: because divisions are also made for this, that the definitions of the parts and the dividing [members] may be had, through which it may be known in what way

and in what order they are to be placed in a genus. CHAPTER VI. On the principles or suppositions which ought to be premised to the order of the predicables.

But there are two suppositions which are to be premised as principles to the order of the predicables. One of which indeed is, that when one thing is predicated of another as of its own subject in a straight line, and standing under directly and substantially according to the respect of all five universals to those things which are directly under them, whatever things are said of that which is predicated in a right and substantial order, it is necessary that all be also said of the subject. We have indeed given examples of these in the science of universals according to every mode of predicating the five universals, as man as a species is predicated of a certain man: but animal in the same order is predicated of man as a genus and substance of animal, it is necessary that animal and substance [be predicated] of a certain man as a difference: but sensible and vital and animate of the rational as genera and differences, it is necessary that these also be predicated of a certain man. Similarly, the capable of laughter (*risibile*) is predicated of a certain man as.

...property: but of the capable of laughter (*risibile*) the capable of admiration (*admirativum*) [is predicated] as a genus, and of this the capable of suspension towards apprehended things (*suspensivum ad apprehensa*), and of this according to the nature of desiring (*secundum naturam desiderationis*), it is necessary

that these also be predicated of a certain man. Similarly white is predicated of a certain man as an accident: but of white colored, of colored [what sort] of quality (*quale*): it is necessary therefore that these also be predicated of a certain man. And generally speaking, whatever things according to a straight line in the order of the individual to the species and of the species to the genus can be said of any predicate.

And as Avicenna and Algazel say, it is similar in negation, provided that those things be denied of the predicate which are according to the form of species or genus opposite to the predicate: as if some man is not a stone, but a stone is inanimate, it is necessary that some man not be inanimate. It is similar in the order of differences and properties and accidents: as if man is rational, but rational is not insensible, and so of others: it follows that man is not insensible. And this is easy to see in all things: as if man is capable of laughter (*risibile*), but the capable of laughter cannot be non-admiring (*non admirativum*), it follows that some man cannot be non-admiring. And if man is: but white is not non-colored, it follows that man is not non-colored: and so it is in all things. And we use this principle to set the straight predicamental line, and to know what things are outside the predicamental line.

From these things, moreover, it is easily clear that it does not follow: some man is a man; man is a species; therefore some man is a species. And man is an animal, and animal is a genus; therefore man is a genus. For species is not pred-

icated of man as of a subject according to the right predicamental order, but it is predicated of him as an accident extraneous to this order: and therefore in such an argument there is a fallacy of accident.

And through this principle also the first figure will be found in syllogisms, as will be clear in the doctrine of the *Prior Analytics*.

The other principle moreover is, that of diverse genera, and those not placed subalternately, the species and differences are diverse: for as the genera are diverse, animal and science, according to diverse categories: for one is a genus in the category of substance, and the other is a genus in the category of quality, and they are not placed subalternately in the same line of a category, so that one is directly contained under the other: and therefore they have diverse differences not ordered to each other as lower and higher. For the species of animal are man and horse: but the differences as capable of walking (*gressibile*), quadruped, and volatile. Of science, indeed, none of these species or differences is [found]. These species of science are grammar, logic, and physics: but the differences [are] demonstrative, opinable, probable, and of this sort. For one science does not differ from another in that one is biped, and the other not, but volatile: and it is similar for all genera not placed subalternately, which are not contained in the same predicamental line.

To these things however which have been said, instances are brought, but they are sophis-

tical. The first of which is concerning body, which is placed as a species of substance, and a species of quantity, which are diverse genera, and not placed subalternately. The second is concerning science, which is placed as a species of quality and of relation. The third is concerning the square, which is a difference of figure, as is said in the *second* [book] of Euclid, and is a difference of number, as in the second [book] of arithmetic. The fourth is concerning the rectangle, which is placed as a difference of triangle, as is clear in the *first* [book] of Euclid, and is placed as a difference of quadrangle, as is clear in Euclid's *second* [book].

But all these instances are sophistical: because body according to that which is a species of substance, and according to that which is a species of quantity, is equivocal and is not accepted according to one account. For body which is in the genus of substance is substance measured by three diameters intersecting each other at right angles. But according to that which is in.

...category of quantity, it is the triple dimension itself. Similarly science, related to the knowable, is a species of relation, and according to that which is the quality of the knower, it is in the category of quality. But the square is not said of numbers except metaphorically and not properly. Similarly, moreover, the rectangle is not said in the same way of the triangle and of the quadrangle: for to the quadrangle it belongs per se and always, but to the triangle it happens: for it is sought for the triangle also through accident.

Some also instance the rational, which, as they say, belongs to the mortal and the immortal, as was said in the science of *Universals*. But to this some say that alternate and subaltern are placed subalternately, and in the same predicamental line: for although one of these is not placed under the other, yet both are placed under the same higher genus such as under substance: and it is so understood when it is said of [genera] not placed subalternately, so that the sense is: of diverse genera and not placed subalternately, that is, not placed under the same common [thing] which is above them: and thus it is necessary to say according to the Stoics and Epicureans. In truth, however, rational does not belong to the incorporeal and the corporeal according to one and the same account: but to determine this is in the book *Of Causes*.

Of subaltern genera, indeed, of which either one is placed under the other, or both are placed under one higher common genus, nothing prohibits that the differences be the same. For higher genera are predicated of lower ones: because of which, according to the principle previously introduced, whatever things are predicated of the predicate of difference itself as divisive, are also predicated of the subject as constitutive. But the divisive are predicated of the genus under disjunction, as substance [is] either corporeal or incorporeal: but of the species, one of the differences having been assumed, it is predicated as constitutive, as of body corporeal, and of animal animate and sensible. These, therefore, are the

things which we wish to premise as suppositions to the ordering of the predicables. CHAPTER VII. On the enumeration of the genera into which the predicables are reduced.

These things having been so premised, now we shall find the genera into which the whole of the predicables has to be reduced. We say, therefore, that of those things which are said according to no complexity, so that they have neither the complexity of a perfect speech, nor an imperfect one, nor the complexity of a definition, but are simply incomplex, signifying only one thing, and nothing with itself, each accepted according to itself in the indivisible signifies either substance, or quantity, or quality, or to something (relation), or where (place), or when (time), or to be in a position (site), or habit (state), or to do (action), or to suffer (passion). Of these, moreover, (so that there may be a manifestation figuratively or superficially through the position of examples) substance indeed is as man and whatever thing exists per se. Quantity, moreover, as a two-cubit [measure], and a three-cubit [measure] and anything which continuously or discretely measures magnitude or multitude. Quality indeed is as white, or black and of this sort. To something, moreover, or relative, as double, half, equal, greater, and lesser and of this sort. Where indeed, as in a place, such as in the forum, or in the theater, or above, and below and of this sort. When indeed, as yesterday, or today, and tomorrow, or formerly, and now and of this sort. To be in a position or to be placed, as he sits, he lies, he stands

and of this sort. To have moreover, as shod, tunicked, armed and of this sort. To do indeed, as to cut, or to burn. To suffer indeed, as to be cut, or to be burned, to be heated, to be cooled or of this sort.

To all these the predicables have to be reduced as to the first genera of their coordination, and the first principles of that thing: for although many have labored to give a reason why the number of the principles.

...of all things stands at ten, we, as much as we can, shall strive from the proper modes of predicating of these genera to show the reason for this number. It must be noted, therefore, that this number is only of the predicables which are predicated as universals of subjects. Because of which, if there is something which is predicated of none as a universal, nor can anything be predicated of it as of a subject and particular or species, that is not in any of these genera, but before these, and the cause of all these, as the first cause, namely God exceeding all things, who is neither universal, nor particular, nor species, nor genus, nor difference, nor power, nor the act of anything: and truly is not anything as a substance, or as an accident of anything, but is the efficient [cause] of all, and such a principle through his active science and through the universally acting intellect. These things, moreover, have to be proved in the book *Of Causes*. If there are also any separate forms forming things, and in no way mixable being separate from things, to which the things themselves are formed as to certain seals, and

are not in the things, as Plato said, those are not predicated of things, because they are nothing of the things. And something cannot be predicated of anything which is nothing of it. Those also are not in a genus, nor reducible to any genus. And if they are called substances, the name of substance will be equivocal to those substances. This, moreover, has to be determined in *First Philosophy*. But all those things which are universal, or whatever subjects of universals are in some in some way, and in which they are as in subjects, in whatever way, those are reduced to these ten genera which are numbered, and they issue from them as from their first essential principles.

There are again certain things not reducible to one genus, but they are in all, such as being (*ens*), and one, and thing, and something, which are called not genera, but as certain principles said through prior and posterior of those genera. And these genera are called the first parts of those, and those are not equally predicated of these, but said according to prior and posterior: so that they are in one rightly and truly, and are not in the others except through analogy and proportion of habitude because they relate to one principle.

Some also are in several genera, but in whichever they are they are truly of that genus, as motion which in place is "where flowing" (*ubi fluens*), in quality "quality flowing" (*quale fluens*), in quantity "quantity flowing" (*quantum

fluens*). And change itself in substance is in some way "substance flowing".

These things having been so fore-tasted, we say that the predicable of anything is either substance or accident: and this division is through immediate opposites, which are reduced to affirmation and negation, as being per se and not per se. But being per se, as predicable being per se, is substance, and is the first genus of all, and a certain principle of all others. But being not per se, predicable or subjectible, is of necessity an accident: and this is being in another as in a subject, which has to be divided into two according to Aristotle. An accident indeed is either an accident according to in-being (*secundum inesse*), or according to having itself in some mode towards another.

But if it is an accident or something "falling" (*cadens*) according to absolute in-being, then it either is in according to matter, which is potentially divisible and extensible and numerable for the reception of forms, which insofar as it is potential is first found in matter: or it is in absolutely according to the power of the form, which is perfective of matter for act and operation. If it is in in the first way, it is thus quantity. But if it is in in the second way, then it is quality, which is the disposition of a substance for some operations and for acts.

But if it is not an accident according to absolute being, this falls from substance according to that which is in some way for the substance to have itself towards another: then it cannot

be except in two ways: for either that having itself towards another in some way is caused by the substance compared to another, or by that extrinsic [thing] compared to the sub.

...stance of which it is predicated. If in the first mode, then again it is only in two modes: for either it is in a simple comparison to another, or according to the comparison of parts to the whole considered in itself. And if it is in the second mode, it is position or situation. But if it is in the first: either according to a comparison arising from form, or according to a comparison arising from the whole simultaneously. And if it is predicable according to a comparison arising from form, it is action: whence Averroes says [1], that action is nothing other than the comparison of an agent to a patient. But if that comparison has arisen from matter, then it is to undergo: on account of which the same Averroes says that passion is the comparison of a patient to an agent according as it is an agent. But if it arises from the whole, it cannot arise except through some act of the whole, by which that comparison is born, and then it is to-something or relation. But if the comparison arises from some extrinsic thing compared to the subject, of which the predication is made, that extrinsic thing either is only adjacent, or adjacent and applied. But if it is only adjacent, and compared from a simple adjacency, either it is adjacent to that which is being which is with motion and extended being. If first indeed it has arisen from an extrinsic adjacency, then it is *where*. But if the comparison has arisen

from the adjacency of an extrinsic thing in the second mode, then it is the predicament *when*. But if it arises from an adjacent and applied extrinsic thing, then it is the predicament *having*. Nor can more things be predicated according to extrinsic adjacency.

But it must be noted, that each of the things which have been said, when they are taken as individual and incomplex, are said in no affirmation or negation: because affirmation is only of one predicate concerning something: but negation is only the showing of a division, of a division, I say, of something from something: for from the complexion or composition of these predicables with each other an affirmation or negation comes to be, and without this sort of thing a term cannot be predicated. On account of which affirmation and negation are not formally and actually in things, but in the soul or the intellect composing something with something, or dividing something from something. On account of which every affirmation seems to be true, or false: and similarly every negation. On account of which also in the sixth book of the *First Philosophy* [2] it is said that the true and the false are in the soul and not in things. And this is true concerning that truth which is the adequation of complex things with the intellect composing or dividing. But those things which are of the number of those which are said according to no complexion, but are apprehended by an incomplex and indivisible intuition of the intellect, in this mode of truth or falsity are neither true, nor

false. But incomplex things are, as man, white, runs. They can nevertheless be true or false in another mode, according as we call true that which is pure, not commingled with an alien nature, or existing and not merely appearing, just as we say true gold, not commingled with an alien nature, and we say it to be true and in truth which thus exists according to act as it appears: and we say a phantom to be true, which appears and does not exist, like specters, and dreams, and things seen by melancholics: for truth thus is convertible with being and is repugnant to the impure and the vain. Hence it is, that Aristotle [3] says, that the understanding of indivisibles is in those things in which there is no truth: but in those things in which there is truth and falsity, there is now a certain composition of acts of understanding.

...stance, which is on the part of that substance. In the first mode indeed, if that which is a substance should have itself towards another according to that which it is, that is, according to quiddity and essence, it is thus "to something" (relation). But if the substance has itself towards another not according to itself, but according to something which is outside it, then it is place or time: because place and time are outside the substance of the thing placed and timed. And place indeed is outside the substance as surrounding it: and thus is founded "where" (*ubi*). But time is outside as the measure of its motion and being: and thus is founded "when" (*quando*). But if that which is in some way for the substance to have itself towards another is caused by that

extrinsic [thing] to the substance, then that extrinsic [thing] is either as a habit which is of the category of quality surrounding the substance and not measuring it, or it is as act, or as passion. If it is as a habit, thus is founded the category of "habit" (*habitus*): for habit is said of a surrounding habit, as clothed, or shod, and of this sort. But if it is as an act caused in the substance by an agent, then it is "passion" (*pati*). But if it is as an act caused by the substance itself in another, then it is the category of "to do" (*facere*). And in these ten is closed the whole ambit of the predicables. And all ten are reduced to two first ones, which are substance and accident. And all accidents to three first ones, which are quantity, quality, and "to something" (relation). For the remaining six are reduced to "to something" through the mode of habitude, which is in them, towards something extrinsic to the substance, as was clear from their descriptions which we introduced. And these are not reduced to "to something" which is a genus, except as to that which is saved in other categories, just as both "one" and "being" are saved in them. This, therefore, is the reason for the number of the genera to which the predicables are reduced, according to what we were able to elicit from the words of Aristotle. And let these things be sufficient said concerning the ante-predicaments.

[the] whole being according to the first notion of substance, in which the account of substance can be understood.

But if it is asked, what are the things composing it, since it has nothing before itself from which it could be composed? It must be said that it has nothing extrinsic before itself: yet within itself it has the understanding of the things composing it. For it is being, and it is through itself, which adds an intellectual composition over being: because it is from being, and from that which is through itself, it is this. And, as Boethius says, it has one thing by which it is something, and another thing by which it is this: and this is the form of its composition, because it has nothing of matter, although it has that which it is and being. And this is the first notion of substance which is predicated of all things which are in the straight predicamental line in the category of substance. However, there are some things which are called substances, not because they receive or participate in this account of substance, but because they are principles essentially constituting substance, just as form is called substance, and matter is called substance, as Aristotle says. But these are not in substance according to the straight order of the category, but are reduced to substance as principles of substance through this dignity, that nothing which through its essence makes a substance, is not a substance. In this way, therefore, substance is considered by the logician and is of the present intention.

But in a third way, substance is said from the act of substanding, and then it is called substance which substands through itself, and to all other things which substand, it gives that they

substand: and in this way individual substance is substance alone, from which however no predication [comes], as will appear below: but all subjectibility of all things which are subjected to whatever things is from it. And because in this book we intend concerning the reduction of the predicables according to their coordinations to one, therefore it is necessary to posit this first substance: which however is last according to the order of substance said in the first and second way.

According to the first intention, therefore, substance is essence, which is neither genus, nor species, nor individual, but is simple. But in the second way, substance is said [to be] composite, and is the first genus, formable and determinable by all following differences to the being of species and individuals. But in the third way, substance is said [to be] determined matter and surface and place to this singular [thing] or that. And in the first way indeed, substance is neither of what sort somewhat (quale quid), nor this somewhat (hoc aliquid), but simple essence. But in the second way, substance is of what sort somewhat, having from that which is formed the "what" (quid), and from that which forms having the "of what sort" (quale). But in the third way, it is this somewhat. But the proper principles of substance are that which is the "what" and formable, which is indeed not matter, but having the proportion of matter in that it sustains itself forming and in that it is formable, and according to the principle which is giving being, having proportion to the

act of form, which is to determine to being, and to limit, and to distinguish, as Avicenna and Alfarabi say. But these things which have been said are very much to be noted, because through them many questions are solved. Here, therefore, we shall treat of substance in the third and second way, leaving the first mode to the First Philosopher.

### CHAPTER II. ### *Concerning what first substance is, and the declaration of its definition.*

Beginning therefore from the first subject, we say that substance which is called substance properly and principally and maximally and in the third way, is that which is predicated neither of any subject directed to itself in which it is through nature and understanding, nor is it in any subject. And through this that it is said *properly* substance, there is excluded substance which is not properly substance, but the first substantial [thing] in any genus, just as color is substantial to whiteness, and measure is substantial to a foot, or a cubit, or of any other species of measure. But it is said *principally* for the exclusion of second substance, which is called substance from the act of substanding through first substance. And it is said *maximally* for the reason that it substands to more things than any other: because it commonly substands to accidents which are not except accidents of the individual. But through this that *it is not said of a subject*, it has that it is truly individual in nature, existing according to act, and it does

not have existence by an act of the intellect as a universal. But through this that *it is not in a subject*, it has that it is being through itself, and not having existence in another nor from another. This, therefore, is first substance, whose example is as some man, or some horse.

But that it is defined through negation, when it is said that it is neither said of a subject nor is in a subject, the cause is because just as it is first in substanding, so it is last in being. And therefore in substanding it could not be defined through an affirmation affirming something which would be the cause for its substanding. Nor could it even be defined through something which would be the cause for its being predicated of something, because it is predicated of nothing: for the last in the order of being cannot have something under it in which it may essentially be. But to be in essentially is the cause that something is essentially predicated of something as a genus or species: but to be perfect in the last act according to nature and sustaining all other things, is the cause that it is in nothing as an accident. For these causes, therefore, it was necessary for it to be thus defined through two negations: which negations however are not infinite because they are limited by those things which are placed in the same definition.

Note, however, that it is not the same *not to be said of a subject* and *to be said not of a subject*: for not to be said of a subject is that which indeed can be said and predicated, but it does not have under itself that in which it essentially

is according to the order of the predicamental line of which it is predicated. To be said not of a subject, this is that from first substance there is no ordered predication: therefore it is said that it is neither of a subject. But because to be in in no way belongs to it, since all other things are in it, and are saved in the being of nature through this that they are in it in some way, therefore it was impossible for first substance itself to be in anything. And as we have said, this belongs to substance properly and not appropriately: for that which is not properly but appropriately substance, and is not substance according to nature and according to its essentiality, but has a certain proportionality to that which is a substance, just as color has itself to whiteness when whiteness is defined: and therefore Aristotle says, that if someone, whiteness being posited, should say through the definition that what was posited is color, he says what it is, but signifies of what sort. For it is not substance but has a proportion to substance, which is the cause of substance through this that it is essentially in the definition of the species just as a genus in a species, and this is through the similitude of proportion and not through the truth of nature.

When, however, it is called principally substance, that is called principal which is the first and through itself—not through another nor through accident—principle of substanding and founding: for it does not have this from another as second substance has from another that it substands, not indeed that it is in it except in

potency, because first substance is not in second [substance], neither according to act, nor according to understanding: but it has from first substance according as that which is called second substance is a certain notion of the whole first substance, saying its whole being in potency not in act: for in act its whole being is not said except by the name of the individual, but potency is from some first act in the order of all things and genera. And, as we have said, it is called maximally: because to all things which are in, it substands in whatever way something may be in something and saves all things in being according to nature, which being alone is perfect and true: and second substance does not have such being, insofar as it is second substance: and therefore in such being it cannot found anything.

But that in the definition there is placed *it is said* and there is not placed *it is*, the cause is because the definition is given concerning substance according as it becomes known through the name of substance, and it is not given according to the principles which constitute substance in the being of substance: but according as it becomes known in the name, it more properly belongs to it to be said than to be.

Examples, moreover, have not been posited of a marked individual but of a vague individual: for this reason, because this individual has something of the nature of the species, as we say in the science of universals, and therefore it touches the nature of incorruption and eternity, and thus it more properly belongs to science: for Plato

commands [one] to rest when thus descending from the most general down to the most specific, for the reason that concerning such things on account of their infinity there cannot be a discipline. This vague individual also [has] something of the predication of the species; on account of which in the doctrine of the predicables it is more convenient to give an example through a vague individual than through a marked individual. This, therefore, is the substance to which there is the reduction of all other predicables: and it is not second substance to which all things can be reduced, and therefore it is said to be first: and in the order of the reduction of all things to one, it is necessary for it to be first. Let these things, therefore, be said concerning first substance.

### CHAPTER III. ### *Concerning second substances, what they are, and how they alone are predicated of first [substances] by name and account.*

Second substances, moreover, are called the species in which those which are called substances principally are in, just as a contained [thing] is in a common container, which contains its suppositions as subjective parts, just as a species contains the individuals which are under the species itself. Therefore species are second substances, and their genera, which contain the species themselves, are second substances: as some man in a species indeed is a contained [thing] in "man": but since "animal" is the genus of that species, he will also be in "animal" just as in a genus, and therefore "animal" is a

second substance. Second substances are called, therefore, as "man" the species, and "animal" the genus, and thus it is concerning all other species and genera.

It must be noted, however, that according to truth there are three formal substances. For there are forms which are only forming: and those are the first forms proceeding from the light of the agent intellect to the constitution of the thing, just as the light which is the formal and substantial cause of color proceeding to a body terminated in the diaphanous. And there are substantial forms which are entering with it into the being of the thing and constituting [it], which are just as light is the cause of color, which is already diffused on the surface of the diaphanous: and those are the conjoined formal substances of the thing itself which is substantially constituted. And similarly formal substances which are constituting the thing, which are just as color is disruptive of sight or motive according to the act of the lucid or diaphanous, which being abstracted from a determined colored body according to spiritual being is in the diaphanous, and according to the being of the species and the animal or intentional [being] is in the eye perceiving the color.

The first, therefore, are more "making," having a causative or formative power from the light of the agent intellect, and these are not predicated of the constituted thing. But the second forms are perfecting the matter and the composite, resting in the composite: and therefore they are not

predicated of the thing in which they are, just as neither are the first. The third are abstracted from things, and are the intentions and notions of the constituted things, and.

therefore they are predicated of them by name and account: for which reason they are also called second substances, not because they are substances simply just as the first are, but because they are second, that is, in this second place substances, just as first substances are called first, which in the first place or order are called substances, participating in the perfect account of substance.

Moreover, for perfect substance and the account of perfect substance three things are required: one and the first of which is, that they have the most perfect being in nature and in act, and not intentional or intellectual being only: and species and genera, insofar as they are such, do not have this being. The second is, that it substands according to itself, and in itself founds to being whatever things of reality there are. Second substances do not have this, because they are founded in the first and do not found them in being. The third is, that they bestow the power of founding and substanding to others: just as that second substances consequently substand to accidents, they consequently have from the first. And I say "consequently": because just as in generation "this [one] generates this [one]" according to nature, but because this generator is a man and this generated is a man, therefore it consequently follows that "man generates man":

so "this man is white," and because this is a man, and this white is white, therefore it follows that "man is white," although nevertheless whiteness is among the accidents of the individual, and not among the accidents of the species, nor does it happen to the species except by the difference of the individual. And it is not thus concerning the proper [attribute]: because according to the nature of the proper, it first happens to the species, and through the species comes to the individual. Thus, therefore, it is called second substance, because it stands secondly, so that common substance is not equally predicated of first substance and of second: so that when it is said, "of substances one is first, another second," it is a division of a multiple-said thing according to this that substance is said from the act and cause of substanding: and in this intention it is here called substance, or it would follow that what will be proved in the following things is not true, namely that first substances being destroyed, it is impossible for anything else to remain.

However, a sophistic objection is made against those things which have been said, because those things which are causes and defining are prior to the caused and defined: but second substances are the causes why first substances are substances, for they are the genera defining the species, and the species are the whole formal being and formally the substances of individuals: it seems therefore that those which are called second substances are first, and those which are called first are second. And to this some say

sophistically, that according to the order and account of being, without doubt those which are called second are first, as the objection proves, and those which are called first are second: but according to the act of substanding and subsisting, the individual substances are the first substances, and the species and genera are second. But it must be said otherwise, that here common substance can be the intention of that substance which is in the thing and the formal cause and notion of the thing, and thus second substance will be first and first will be second: or it can be a universal abstracted from the thing, and thus it is a consequent of the being of the thing and a universal, and is not a subject, but an accident, as Aristotle says. Thus, therefore, the universal which is a genus and the universal which is a species, taken as essential notions of the form of the whole being of the thing in potency or in act, are second substances, that is, second substanding, and second subsisting in the being of nature and in act: and in this way Aristotle understands. But substance which is common to the first and the second Aristotle does not define because it is said in multiple ways of them.

From these things which have been determined in the pre-established things, it is manifest that of those things which are said of a subject, it is necessary for both one name and one account to be predicated of the subject:.

as concerning some particular man, both the definitive account and the name of "man" are predicated: which is proved by an example, be-

cause some man is a man and thus the name is predicated: and he is a mortal rational animal and thus the account is predicated. For otherwise it would not be true what was determined in the pre-established things through that principle: while one thing is predicated of another as of a subject, whatever things are said of the predicate, all are said of the subject: for such a predicate is in the definition of the subject, and therefore it gives to the subject both name and account, just as has been shown in the *Physics*.

But of those things which are in a subject directly in the straight predicamental line of the supposition, in most cases neither the name nor the account is predicated of those subjects in which they are: for in abstract things neither the name is predicated nor the account, because a body is not whiteness, nor is a soul grammar. In some things indeed, as in concrete things, nothing prohibits the name from being predicated accidentally at times of the subjects in which they are, but for their definitive account to be predicated of them is impossible. An example of this is as "white," which although it is in the body as a subject, is predicated by name of the subject: for it is said by a true accidental predication, "the body is white": but the definitive account of "white" is never predicated of the body.

The cause of this for certain is, that "subject" here and there is not said according to one and the same account: for when that which is "of a subject" is said to give name and account to the subject, the subject is said [to be] a supposi-

tion in the straight line according to the order of essential predicables: but when it is said that those things which are "in a subject" do not give their account to the subject, although at times they give the name, the subject is not said [to be] a being perfect in itself and an occasion and in some way a cause for something other than substance existing in it, as Avicenna says. And because "subject" is not said in the same way, it is not marvelous if it is predicated in a different way.

It seems however inconvenient what is said, [that] if in place of the name the definition is put, which it is permitted to do, as Aristotle teaches, then it will be seen that by necessity such a predicate gives name and account to its subject. For if it is said, "the body is white," and "white is colored disruptive of sight," it seems to follow that "the body is colored disruptive of sight." To this, however, some strive to respond, that an accident does not have an account, and that it cannot give a definitive account to a substance. But that it does not have an account, they strive to prove through Aristotle, who seems to say and prove this same thing: because in the definition of an accident the subject falls in chiefly through the denomination of the predicate: for "white" is a body colored by whiteness, and here such an accident is defined, because it is necessary that it be defined through an accident essential to itself just as "white" through "colored." If therefore in the understanding of "white" there is "body" because the being of an accident is to

be in, it is also necessary that in "colored" there be understood "body" through the same reason: and yet thirdly it is understood in that which is called "disruptive of sight," because this also is an accident, and thus "white body" will be "colored body" and "body disruptive of sight": but such a definition in which the same thing is said many times is nothing, therefore there is no definition of an accident. But this solution is against Aristotle, because Aristotle says, [that it is] sometimes [predicated] by name, but never predicated by account of the subject in which it is: and thus he supposes the accident to have an account. Therefore, saying that an accident for that reason is not predicated by account of the subject in which it is, because it does not have an account, is against Aristotle. Moreover, in the *first [book] of the Topics* he says, that whiteness being posited if someone should say that what was posited is color, he says what it is: and he who should say that what was posited is color.

diffused in a clear surface, he says what the [nature] of whiteness is through the definition: or if he should say that "white" is "colored disruptive of sight," he says the definition of "white" through the given cause: and these are definitive accounts.

It must be said, therefore, according to the doctrine of Aristotle, that an accident has an account, although it does not have an account according to the perfect account of a definition just as a substance [does]: but the definition of an accident is taken from the principles of the

subject which are the cause of the accident: and just as the accident both is in the subject and is demonstrated of the subject through the cause which the definition of the accident expresses. But when Aristotle says that an accident is predicated sometimes by name, but never by account, he understands that nothing is predicated by account except that which gives its account to the subject just as it gives the name: that namely, just as the name says that which is essential to the subject, so also the account of that name says all things which are essential in the subject, so that nothing is placed in the account which is not of the essence of the subject, either as potency or as act. But an accident, even if it gives the name, never gives the account, because the things which are essential to the accident are accidental to the subject, and outside its nature: but there is no such account. Moreover, the predication of the name in an accidental [predication] is not repugnant: but the predication of the account as an account is utterly repugnant to accidental predication. For if a definition is predicated as a definition, it is not predicated except of its own defined [thing]. But it is not predicated of this, except as its substance and quiddity. This, therefore, is the understanding: that it indeed gives the name, to which accidental predication is not repugnant, because the name insofar as it is a notion can be predicated substantially and accidentally: this never gives the account as an account, because the account is repugnant to accidental predication.

### CHAPTER IV. ### *That first substances being destroyed, it is impossible for anything else to remain.*

It is manifest, moreover, from these things which have been said, that all other predicables —whether substances, or differences, or proper or common accidents—either are said of the principal and first substances as of subjects directed to themselves in the predicamental line, just as second substances, or they are in them just as in subjects denominated from the accidents which are in. There follows, therefore, this consequence: if second substances are "of" first [substances] and accidents are "in" first [substances], then from the destruction of the consequent, if first substances are not, it is impossible for there to be any of them, whether it be of the number of second substances, or of the number of accidents. But this will easily become manifest from these things which are now to be said. Let each of the other things which are other than first substances be proposed. And first let them be proposed concerning second substances which are predicated of the first. I say that "animal" is predicated of "man" as a genus of a species: therefore both of these, namely "animal" and "man," which are genus and species and second substances, will be predicated also of a certain man as of a particular. For if it were said that it is not predicated of any [one] (which is the contradictory opposite of that which is to be predicated of some [one], since "not of any" and "of none" are equivalent), it would follow that "animal" is

predicated of no man, and thus "animal" would not be predicated of "man": but it had been given that it was predicated of "man," therefore it will be predicated also of a certain man: but nothing will be predicated of anything, except through this that it is in it according to the doctrine which has already preceded concerning *Universals*: therefore "animal" and "man" are in a certain man. Similarly it is proved concerning an accident that.

is in a first substance: for color is in a body, therefore [it is] in some [particular] body. But if it is not in any one of the individual bodies, it follows that it is in no body, and thus it is not in a body at all: but it had been given that it was in a body, therefore it follows that it is in some [particular] body. Moreover, whatever things are in something do not have being outside of it. But substances which are second substances and accidents are in first substance according to being. Therefore they have no being outside of its being: therefore all other things are either said of principal substances, or they are in them as in subjects: therefore, if first substances do not exist, so that none of the first substances is, it is impossible for any of the others to be or to remain in being. But all other things are either said of first substances as subjects, or they are in them as subjects: and whatever things relate to first substance in either of these two ways do not have being except in first substance, and do not have being outside of it: but if there is no first substance, then they do not have being in first substance; there-

fore, first substance being destroyed according to being, nothing remains of second substances or accidents.

And this indeed seems contrary to what was said in the doctrine of the *five universals*, namely that if any man and any other species of animal and any individual were destroyed, "animal" would still remain: for animated sensible substance remains.

Furthermore, second substances are prior, because they are of the constitution of the ultimate things which are called first substances. But the destruction of those things which are prior does not follow when posterior things are destroyed.

Furthermore, from inferiors to a superior the process of argumentation is not valid except by affirming and not by denying. But if the things which are said here are true, then the place from the inferior to the superior is valid by destroying or denying, which is inconvenient: for it is argued thus: the inferior is not, therefore the superior is not, which does not follow; but conversely: the superior is not, therefore the inferior is not.

To these things, however, it must be said, as we remember having said in the doctrine of *Universals*, that superiors do not have actual being according to nature, nor perfect being with the ultimate perfection, except in individuals, which alone attain perfect being in nature, and that all things which are in genus and species have being in potency and [as] indeterminate and confused and fluid until they attain that [individual being]: and therefore, if those [individuals] do not exist,

nothing of the others has actual and determinate being in nature.

To those things which they object against this, it must be said that things prior according to nature are not destroyed as prior when the following posterior things are destroyed, according to the being of the prior things: and thus, individuals being destroyed, the being of those things which are prior by nature to individuals remains, and species being destroyed, the being of those things which are prior to species remains according to that being by which they are prior to them: but this is the intellectual being by which they are genera and species, and it is not actual perfect being in nature: for as to this, they are destroyed when the first are destroyed, because they do not have such being except in the first.

As to what is objected concerning the place from the inferior to the superior, which is not valid except by affirming, we say that this is true: but it is not a place from the inferior, but it is a place from parts sufficiently enumerated as here: this does not have being except in A, and B, and C; if therefore it is neither A, nor B, nor C, it follows necessarily that it itself is not, and this indeed is true. Thus, therefore, it is true as to actual perfect being in nature, that first and principal substances being destroyed, it is impossible for anything of the others to remain according to such being.

If anyone, however, should oppose and say that it does not follow that if it does not remain

according to such being, it does not remain according to being simply. It must be said that

such being is being simply, and every other being is being in a certain respect: hence if it did not remain according to such being, it would indeed not remain simply, but it would remain in a certain respect: and so Aristotle speaks.

### CHAPTER V. ### *That species are more substances than genera, but not thus a most specific species with respect to another most specific [species].*

Of second substances, indeed, species are more [truly] substances than genera for the same reason which has been said; for a species is closer to first substance than a genus according to the descent in the predicamental line: and because it is closer, it more [precisely] determines its being. And this is proved by the fact that if someone, having been asked concerning a first substance "what is it?", as "what is a certain man?", the respondent, assigning [the answer] to the question "what is the first substance?", will assign what the first substance is more evidently and manifestly by proffering the species in the response than by proffering the genus: for the species is the whole formal being of a certain man: but the being of man in the genus is not the whole but according to a part, and it is confused by the community of the genus: hence, just as the being of a certain man is more determinate in a certain man than in "man," so the being of a certain man is more determinate in the species than in the genus: therefore, by assigning "man," you will as-

sign what a certain man is more manifestly than by assigning that "animal" is in the species: just as to be a man is more proper to some man than to be in a genus as to be an animal: for to be an animal is to be more common and more confused and indeterminate than to be a man, as is evident by inducing in similar cases. For when you have been asked "what is some tree?", and you have said that some tree is according to its species, you will assign what a certain tree is more manifestly and certainly than if you had said it is a plant.

Therefore, similarly, also in assigning a certain man by saying he is a man, you will indeed assign what he is more manifestly than if you had said the same [man] is an animal.

Moreover, this indeed is proved by another reason: for principal substances are called principal for this reason, that they stand under and are subjects for all other things, and all other things are either predicated of these or are in them, as has been said: for they were called substances most of all in the *Physics*. But just as first substances relate to all other things in standing under and founding them in actual being, so also do species relate to genera: for the species is subject to the genus as determining its confusion toward the ultimate formal being: and this is proved from the fact that genera are predicated of species as the more common of the less common, and as a whole of the part of which it is the whole. But species are predicated of genera least of all, because it is not converted, so that just as a genus is universally predicated of a species, so a species

would be predicated of a genus. It follows, therefore, from these things that a species more [truly] expresses the substance and "whatness" of a first substance than a genus.

It seems, however, to be objected against this, because in the question "what is it?", he more [truly] states the cause who assigns that cause which is a cause *per se*, than if he assigns a cause which has its being a cause through that prior one: but the most general, which is the principle of all, is a cause *per se* in the question "what is it?", and all other inferior things are causes through it, and thus it seems more [truly] to say "what it is" by assigning the genus than by assigning the species: which if it be granted, it is contrary to what has been said.

Furthermore, since the superior is in the inferior in act and in intellect, he who assigns that which is inferior also assigns that which is superior: but he who assigns that which is superior assigns that which is inferior neither in act nor in intellect, because it is not in it except according to potency: therefore, he assigns more the cause of "that which it is" who.

...assigns species than he who assigns genus: and this must be conceded. And to what is objected that he who assigns what is inferior, assigns what is a cause through another: It must be said that the inferior is not a cause through another which is outside of it, and therefore it is not a cause entirely through another, but through itself. But if it were through something outside of itself, then it would be a cause entirely through

another: and therefore in the question of what something is, he better assigns the cause who says the species than he who says the genus. It is manifest therefore that among the second substances the species is more a substance than the genus.

But of the species themselves whatever are most special species, so that in no way can they be genera, one is no more a substance than another: because each of them equally is the whole being of its individuals determined in the ultimate form, to which in the being of the individual nothing is added except matter and the individuating accident. This is proven by induction: because if you are asked what some man is and what some horse is, you will assign nothing more familiar pertaining to or determining the being of this man responding concerning some man that he is a man than concerning some horse that it is a horse: for equally determinate and certain is the being of a certain man in man, and the being of a certain horse in horse. Therefore equally man and horse, which are most special species, are substances as regards the act of underlying. Similarly also of the principal substances of one species than of another species, which both are most special and are not subalternate placed in subalternation, the principal substance of one species is no more substance than the principal substance of another species, and one principal substance more or less than another: for some man is no more a principal substance than some

ox or some horse, but all individuals of species are equally principal substances.

But it is not so in genera: for although a genus is genus of a genus superiorly all the way to the most general, it does not however follow that the genus of a genus is a third substance and the genus of that genus is a fourth substance, and thus ascending there would be a fifth, and sixth, so that the last would be the most general: because in common forms which are predicated, there is nothing but the confused and the determined through the ultimate act: and therefore there are only two substances in the genus according to more and less, the determinate indeed which is the species and the indeterminate which is the genus: but this is true, that in the confused there is the confused, the more confused, and the most confused: but these do not make a grade according to a differing species, because for more of them it is confused and indeterminate: therefore rightly those things which ascending after the principal substances are the species and genera of the inferiors are called substances, and only those are second substances: for only these indicate according to the question asked through what something is, that the principal substance is in a confused and indeterminate being among those things which are predicated of the principal substance: for all predicables are predicated in the category of quality: for assigning some man what he is, he will demonstrate something more familiar and more certain if he says it is a species and is a man than a genus, saying that it is an

animal. But of the other predicables which are predicated according to accident, because they are in a subject, whatever he assigns responding to the question asked through what something is, anyone will assign extrinsically: nor will it be of the essence of primary substance, namely of its quiddity. Therefore from the opposite for this reason species and genera alone are called second substances.

Furthermore this same thing is also proven in this mode: because the principal substances are called substances from the act of underlying, therefore they are called principal substances because they underlie all other predicates whether essential or accidental. But just as primary substances are related to all other predicates in underlying, so species and genera of the principal substances are related to the remaining other accidents, namely predicates:

because all the remaining accidental predicates are predicated of species and genera in the manner which was determined above: for you will say that some [particular] man is a grammarian, therefore you also say that "man" and "animal" are grammarian, as was proved just before: similarly it is also in other accidental predicates. Therefore species and genera have the second place in standing under: for this reason they are called second substances, and all are called substances, and none [are called] third or fourth.

### CHAPTER VI — *Concerning this common [property] of substance which is not to be in a subject.*

These things having been determined concerning principal and second substances, it remains now to determine the properties or passions following the genus of substance. We shall touch upon first, therefore, whatever properties belong to substance insofar as it is in the predicables, because those are more proper to our present intention. Since, however, a property is what belongs to all and always, therefore those things which are properly said to belong to the whole genus and to the whole coordination of substance are common to species and genera.

Let us say, therefore, that it is common to every substance not to be in a subject in that way in which an accident is in a subject. For we have already distinguished before that "subject" is said according to the name [to be] the same as that which is "cast under" or the "supposit," and thus a common nature is in its inferior just as in a subject, as a genus in a species, and a species in an individual, and universally a second substance in an inferior and particular. But "subject" is said [to be] a being complete in itself, which is the cause of an accident or of something else existing in it: and in this way nothing except an accident is in a subject: and thus it is common to every substance, both second and first, not to be in a subject.

But this is clear by induction. A principal substance, which is a particular of substance, is

neither said of a subject, because nothing stands under it as a supposit, nor is it in a subject just as the being of an accident is to be in a subject, because it is existing through itself.

Similarly, of second substances it is manifest that none is in a subject [when] "subject" is so called as a complete being, which gives being to another in itself, which being it does not have unless it be in it: for "man," which is a second substance, is indeed said of a subject, insofar as the supposit is called a subject when it is predicated of some [particular] man, as when it is said, "some man is a man." But it is not in some man as in a subject, insofar as "subject" is called a complete being, giving being to another through this that it is in it and would not have being unless it were in it. The proof of which is: because just as "man" which is a second substance is not in some man so that it receives being from some man, which it would not have unless it were in him: for "man" insofar as it is a second substance and a species is the being of individuals and the being of some man, giving being to particulars, and therefore it is impossible that it receive being on account of this that it is in them. Similarly also "animal," which is a second substance as a genus, is indeed said of a subject [as] of some man or some animal, but it is not in some animal or man as an accident in a subject.

Moreover, as has been held before, of those things which are in a subject as an accident is in a subject, the name indeed is not prohibited from sometimes being predicated of the subject

in which they are, but it is impossible for their account to be predicated of the subject, so that it would be predicated as the account of the subject, as has been shown before. But of second substances, both the name and the definitive account are predicated of the subject which is the supposit: which is evident, because the name of "man," which is a second substance, is predicated of some man, for "some [particular] man is a man": and similarly the account [is predicated], because "some man is a rational and mortal animal": therefore second substance is not of the number of those things which are in a subject just as an accident is in a subject.

But this [fact], which is not to be in a subject, is indeed a property which belongs to every substance and always, but it does not belong to it alone: for it belongs also to the difference, which is not in the predicament of substance according to the direct line of predicables in standing over and standing under: for the difference is not in a subject: for "biped" and "capable of walking," which are divisive differences of "mobile animal," and constitutive differences of the species "man," are said and predicated of the subject in which they are, which is the subject as a supposit, [namely] of man: but they are in no subject, insofar as a subject complete in itself gives being to an accident which is in potency: for a difference in a species gives being in act to the species: because, as has been determined in the science of *Universals*, a difference is that which leads to being and which is a part of that which is the

being of the thing: therefore neither "biped" nor "capable of walking" is in man so that it receives what it is through being in [him]: for the difference confers being upon the species, and does not receive it from it: for if it received being from the species subjected to it, it would be necessary that the species be received in the definition of the difference, just as the subject is received in the definition of an accident: but this does not happen: but rather the difference is received in the definition of the species: it is clear, therefore, that it is not in the species as an accident. Furthermore, of whatever the difference is predicated as of a subject by name, of the same is predicated the account or definition of the difference, as is clear by an example: because if "capable of walking" is said or predicated of man, then also the definitive account of "capable of walking" is predicated of man, which is "to be mobile by feet by will or appetite according to progressive motion": for man is capable of walking, [that is], man is mobile by will with progressive motion.

A doubt can arise here, however: whether the difference is a substance? For it seems not to be a substance because it is said that "this [fact], which is not to be in a subject, does not belong to substance alone but also to the difference": for by this it seems the difference is not a substance. But this has already been sufficiently determined in the science of *Universals*. For that difference which is more properly a difference is, according to what it is and according to its nature, a substance, which is a substantial form, which gives

being in act to the whole substance, and in this way is of the being of the whole: but that which is a notion designating the whole being in act is a difference, and therefore it is predicated of the whole. If, however, the difference is considered insofar as it is related to the genus, whose quality it is consisting in its [the genus's] power, it relates to the genus as following the perfect being of the genus, and therefore in this comparison it is compared to the genus as an inseparable quality of an accident: which quality, nevertheless, according to the nature of a quality, is not a quality, but is an essential quality because the power of the genus is the power of the imperfect, whose imperfection is perfected toward act by the determinate power of the genus through the difference conjoined to it: and in this way the substantial form has the mode of a quality. But compared to the species which it constitutes in its being, it is also an essential quality and a substance, because nothing constitutes in being except a substance: and because it thus has the mode of a quality and the effect of a substance, therefore it is not a substance according to its whole account. And because it is simple and not composite, therefore it cannot fall in the direct line of coordination of the predicables of substance according to the order of standing over and standing under: because it does not look to the genus of substance as to the principle of its being, therefore it cannot be a genus through itself: for the first genera are the first principles of things. But looking to another as to its principle in which it is, it cannot be a first

principle, and thus it cannot be a genus. Since, therefore, it looks to the genus.

not as a supposit for the genus, but as toward that in which it is as in a natural power, it remains necessarily that it be in a lateral line, and therefore it is neither in the genus [directly], nor is it entirely extraneous and separate from the genus. And we have handed down the doctrine of this indeed in the science of *Universals* in the treatise on *Difference*: but we say here only as much as is necessary for the present intention. Because, therefore, it is not in the genus of substance, for this reason it is said that "not to be in a subject" belongs not only to substance, but also to the difference.

But there is something which could cause disturbance according to this doctrine: so that someone could be moved concerning the parts of principal substances, as is a hand, a foot, and the like, or even like matter and form, from which a composite substance is made: for those parts seem to be in the composite substance as in a subject: for they do not have the being of parts except in the composite, for a hand cut off is not a hand: and so perhaps someone would think that according to this doctrine we are forced to say in many ways that they are not substances and conversely, by this reason that they are not like substances. For those things which are in something as essential or integral parts, by the fact that they are thus in the whole, do not have being in a subject: for there is one mode of something's being in something as a part in a whole, and an-

other mode of being in something as an accident in a subject, as is determined in the fourth book of the *Physics*.

It must be known, however, that a part is not in act except when it is in the whole: but it is a part in potency and not according to act when it is not in the whole, and thus it receives act and account from the whole: but its act and form is its operation which it has according to the form, as of the eye [it is] to see, and of the root to draw nourishment, and of the leaf to defend the fruit from the heat, and of the hand to perform the work commanded by the intellect, and the like: and the powers still have parts in the whole, and they do not have them when they are not in the whole:

and therefore cut-off parts receive those names equivocally which they have in the whole: but that they in the whole receive the name and account in some way is from the whole: but an accident does not do this when it is in the whole as in a subject. And therefore there is an equivocation when it is said "part in a whole," and when it is said that an "accident is in a whole": for an accident is not the form of a part but of the whole, because the subject of an accident is a being complete in itself: but the complete [being] is the composite whole. There is also still a dissimilarity, because parts in a whole, whether they be essential or integral, constitute the whole according to being, and therefore they are substances of the whole: for an accident is not in the whole as constituting it according to sub-

stance, but is as constitutive in being in whatever way through the substance, and therefore in the definition of an accident the subject is received as the cause of the accident: but in the definition of the composite the parts are received as principles of knowing the whole: because the principles of knowing and of being are the same, as is said in the beginning of the *Physics*: for Aristotle says that we know the composite and the whole when we know from what things, and how many, and from what sort of things it is.

From these things, however, some, being in error, object, as Gregory of Nyssa says: Whatever things are in something as an entelechy are in it either as an accident or as a material form which has [no] being outside of it: but the soul as an entelechy has being in the body: therefore it is either in it as an accident in a subject, or as a material form: and whichever of these is given, it follows that it does not have being except in the body, and does not have being outside of it. To this, however, some strive to respond, saying that the soul has being in the body as a mover in the moved, like a king in a kingdom, and a sailor in a ship, and therefore it is separable from the body, and when separated it has being in itself.

But, with all due respect to them, these do not sol-

solve the objection, because the objection proceeds thus, saying that whatever things are in a body as an entelechy, etc., and a mover in the moved is as an entelechy: but the soul in the second book of *On the Soul* is said to be

the entelechy of an organic body, having life in potency. And this was said concerning the soul, not insofar as it is the soul, but insofar as it is the form of an animated body: and therefore Aristotle says that the soul thus defined is in a habit, and like sleep, and like an elemental figure: and it is a definition relating to a demonstration as a conclusion: and therefore in the following things Aristotle corrects it, saying that the soul according to substance, insofar as the soul is a substance, is defined thus: "The soul is the principle and cause of life," supply, such as the soul itself is: for the vegetative [soul] is the cause and principle of vegetative life, and the sensible [soul] is the principle and cause of sensible life: which lives are not without a body: and therefore those souls are not principles and causes of such life except in a body: but the intellectual soul is the principle and cause of such life without a body: for intelligence is perfected without any body, and is separated from every corporeal subject: if therefore it is the principle and cause of such life, it will also be according to itself the principle and cause of such life: separated therefore from the body it is the cause and principle of such life.

As to the objection, however, it must be said that the intellectual soul is not the entelechy of the body except through its act, which is the infusion of sense and motion into the body, and these are its acts according to that which is its part and potency, just like the vegetative and sensible [parts]: but its act and operation according to that which it is in substance is according

to that which is intellectual: and this act and this operation is without a body. These things, although they are not to the purpose [of the present treatise], have nevertheless been set down for the sake of removing the objection, so that the doctrine may be more perfect.

### CHAPTER VII. ### *Concerning the property of substance and difference which is to be predicated univocally.*

Furthermore, there is a property which belongs [to something] always, but not to it alone, nor to all [of it]: it indeed does not belong to it alone, because it belongs to substance and difference: but it does not belong to all, because it does not belong to principal substance. This property (which is present indeed as a property in substances which are called substances from standing under and standing over, and is present in differences which are not said to be in a genus directly from standing under) is that all predicates which are from them and are of their number are predicated univocally of those of which they are predicated: for all predicates which are from these, that is, taken from substance and differences, are predicated either of individuals or of species, "species" being said generally of subalternate and most specific [species]. This property, however, does not belong to every substance, because it does not belong to principal substance which is individual substance. For from a principal substance there is no predication, because an individual is predicated of nothing: and if there is no predication taken from

a principal substance, then it is not predicated univocally of anything, for the reason that it is predicated of nothing as of a subject for itself: for it is the most recent subject of all, and therefore it cannot have anything which would be a subject for it, insofar as "subject" is said according to nature [to be] a standing-under supposit, nor can it be said of a subject: but everything which is predicated univocally of anything is said of it as of a subject: therefore first substance is predicated univocally of nothing. And thus two conditions are held, namely that it is not predicated, and that it is not predicated univocally.

To this, however, it seems to be contrary what Porphyry says in the book on the *five universals*, namely that an individual.

is predicated of only one, that is, of itself. But this was solved in the science which we wrote concerning *Universals*. For in that place we said that it does not happen that something is predicated of itself by a natural predication, or by an essential predication. Because in such a predication the predicate ought to be of the account of the subject and a principle of constituting and knowing it. But this cannot be when the same is predicated of itself. In the same way, when the subject is of the account of the predicate, then the subject is a principle of knowing the predicate: and this again cannot be when the same is predicated of itself: for there cannot be [anything] except a predication by accident if there is predication: for a proper effect is not there predicated of a cause. But it is not a predication by accident,

because neither is the predicate an accident of the subject, nor is the subject an accident of the predicate. And thus it is neither a predication *per se*, nor by accident: therefore none. And this indeed is true, because when an individual is predicated of itself, it is signified that the same is in itself: which can in no way be understood: because nothing is in itself, as Aristotle says. But what Porphyry says is to be understood concerning inordinate predication, which is not a universal predication of something: and then that predication is reduced to art, so that the same is understood to be predicated according to that which it is, and this is when it is said, "this man is this man," or "Socrates is Socrates," so that the sense is, that "this man insofar as he is a thing of nature is this man by which he has the being of man," or "Socrates insofar as he is this Socrates is the Socrates by which he has the being of Socrates," that is, according as he is under the individuating [traits] signifying that he is Socrates. Concerning such predications we do not speak here.

But speaking in this way, as Boethius says, no propositions are truer than those in which the same is predicated of itself: because in such things the same is predicated according to that which it is of that which it is, for being

whereby it is that which it is, is inseparable through the intellect from that which it is: and therefore it is always true, and as some say, such a proposition has its truth from none but itself: for this is always true, "man is man," "house is house," because being in that which it is, is

always accepted through the intellect, and therefore the truth of such propositions is eternal, as some say.

It is clear therefore how there is and how there is not predication from a first and principal substance. But that it is not predicated univocally is easily proved by the fact that it does not have anything subjected under it as a supposit, in which it would be as a genus or difference, which is the cause of univocal predication. Since, however, it is predicated of itself in some way, nevertheless it is not predicated as a being of the account of itself, and thus it cannot be predicated univocally of itself.

But that every predication which is taken from second substances and differences is univocal is proved by induction: because whatever things are of the number of second substances are species or genera: and a species indeed is essentially predicated of many differing in number alone, and these are individuals: but genera are predicated both of species and of individuals by a substantial predication, because a genus is predicated of many differing in species. Similarly also differences are predicated of the species and individuals of the species which they constitute, as formal essences which are in species and individuals: and when species are predicated of first substances, then first substances receive the account of the species, because the species gives its name and account to the individual: and similarly when genera are predicated of species and individuals, the species receive the accounts of

the genera for the same reason, because through the fact that the genus is essentially in the species both in act and in intellect, the genus gives its name and its account to the species through that dignity which was premised, namely that when one.

other is predicated of another as of a subject, whatever things are substantially predicated of the predicate are all said of the subject in the same manner and order of predication. Similarly, moreover, when a difference is predicated of species and individuals, through the fact that it is essentially in them as act, then both species and individuals receive the definitive account of the difference, because the difference itself is essentially in them as act and as form. But it has already been held that those things are univocal whose name is common and one, and the definitive account given according to that name is the same. But by one name and one account are second substances and differences predicated: therefore all predicates which are taken from second substances and differences in an ordered predication are said or predicated univocally.

Attend, however, to the fact that although a difference is not taken as a genus, and does not have a subject in a direct line of standing above and below, but is from the side looking to such a line, nevertheless the difference has a subject in which it is, of which it is [predicated] as a predicable and as a certain universal, and thus it is predicated of it univocally.

Furthermore, it must be noted that although a difference does not have a genus which would be in it through the intellect, and thus does not have a true definition by which it would be predicated, nevertheless it has its name assigned through its essential formatives through an essential cause, such as what is said: "that which leads to being," and "that which is a part of that which is the being of the thing." For this assignment was given through a cause, according as the difference itself is a cause of being, and through this it has to be predicated univocally: and in whatever the predication of its name belongs, the difference is in it through this same complete account, namely that the difference leads that [thing] to being, and that the difference itself is an essential part of the being of that thing. For thus it is understood what it is to be predicated by name and account, namely so that the subject of which the predication is made, just as it participates in the predicate by name, so it participates in it by account.

### CHAPTER VIII — *Concerning the property of substance which is to signify "this somewhat" (hoc aliquid).*

All the properties having now been held which follow substance insofar as it is one of the predicables, it remains now to see concerning its properties insofar as it is substance without being considered as a predicable or as one of the predicables or predicaments. I say, therefore, that every substance seems to signify "this somewhat": but to signify "this somewhat" belongs

indeed to substance alone, but it does not belong to all [substance], because just as to be predicated univocally belongs to second substance and not to the first, so to signify "this somewhat" belongs to first substance and not to the second, although it seems to belong also to second substance itself. And in first [substances] indeed it is indubitable and universally true, since first substances signify "this somewhat": because they have matter terminated and marked by accidents and individuating [traits], through which they are here and now, and through which each of them is one in number, and [is] here and now, in which, as Boethius says, diversity is not found in numbering: which does not belong to that which is one in species or genus, which has neither determinate nor marked matter, and therefore by division of matter it acts toward a plurality of individuals, and by division of the differences dividing the genus [it acts] toward a plurality of species, so that the unity of number is not preserved in them. Therefore first substance has its being "this" from the individuation and termination of individuating [traits], but its being "somewhat" in form it has from the species which is in it and is its being, and thus it is properly called "this somewhat": hence Boethius says in the book *On the Hebdome*: Everything that is, has from another that it is, and from another that it is "this": for what is "this," is through the designation of this, because it is "this": but what.

tem is, it cannot be except through this, that it is for itself the cause of being.

In second substances, however, it seems indeed under a figure of appellation that the name similarly signifies "this somewhat," when someone has spoken naming "man" or "animal": nevertheless it is not true that the name of a second substance signifies "this somewhat," but the name of a second substance signifies rather a "certain quality" (*quale aliquid*) and not "this somewhat." For that which is signified as a subject in the name is not one in number, in the manner that that which is signified as a subject by the name of a first substance is one in number: for the subject of the name of a species is predicated of many in number in which being in act and simultaneously is signified, and "animal," which is the subject of the name of a genus, is both said of many differing in species and in number in which it is in act and simultaneously.

I say, however, "figure of appellation," not as some say the institution of the name, which they say was first made in individuals, for the reason that they say names were first instituted for the signification of individuals. But I call "figure of appellation" a similar formation of the name for signifying the species and for signifying the individual. For nature, as Damascene says, is considered in two ways: namely, in itself, and in the atom or individual, and in both considerations the nature is designated by a similar name. For the common nature considered in itself is called "man," and considered in the atom it is called "this man": and because it is one, not differing except by the common and the determinate, for

this reason it was necessary that it be designated by one name: and this is called a "figure of appellation." And this figure of appellation is also for us a cause of deception in the fallacy of the "figure of speech," because we often interpret a "certain quality" (*quale quid*) as "this somewhat" (*hoc aliquid*).

Moreover, the cause of this figure of appellation is: because genus and difference and species and individual seem to signify the same thing and the same nature. For genus expresses form in indeterminate matter dif-.

...fused, and such a being of the composite is the genus itself as a certain notion: and therefore it is predicated of the whole, because it expresses the whole in the manner which has been said. The difference, however, expresses the form and act in relation to matter indeterminately related and inclined, and as if reflected toward such matter: for which reason this also expresses the whole being of the entire composite, and therefore it too is predicated of the whole. But the species expresses the form in matter which stands as perfected toward the ultimate act, but is not limited by terms and determined by place and time: and therefore this too expresses the whole being, and is a notion of the whole and not of a part, and therefore it is predicated of the whole. The individual, however, expresses the form in determinate matter, designated by limiting places and the difference of time and the seven individuating [traits], which have been determined in the science of *Universals*. And

because thus the one is in all second and first substances and differences, it was necessary that there be a similar figure of appellation.

Although, however, that which is designated by the name under a figure of appellation is one in all, nevertheless the mode by which it is in all others is not one: for the mode of the confused and of that which stands at the ultimate act is not the same, nor is the mode of the common indeterminate [the same as that of] the substance limited by number and terms. And therefore it is not always true that this is designated under a figure of appellation. Therefore second substance, although it may seem to signify "this somewhat," nevertheless does not signify "this somewhat" but a "certain quality" (*quale quid*), namely a "what" through that which is first subjected as formable in it, which is indeterminate and confused: and that it is "of what sort" (*quale*), it has through an essential quality, either according to power, or according to the act of the difference determining it to act, but not determining it by temporal or corporeal limits, such as line, and surface, and place, and time, and homeland, and parentage, and name and the like, by which something defined and determined is made "this somewhat," and circumscribed here and now or defined by the limits of its existence, beyond which there is nothing of its substance. But in a slightly different way the difference signifies a "certain quality," which Avicenna says, for this says "of what sort" (*quale*) by its name, but it does not say "what" (*quid*),

which is the formable subject, except through the effect, because namely it makes it in act.

But here there still arises a question concerning the most general [genus]: for this does not have a difference in itself, and thus seems to say "what" and not "certain quality." But to this it is replied, that it has in itself the difference by which it is formable through power, and thus in some way it has it: and insofar as it has it, to that extent it signifies a "certain quality."

When, however, we say that second substance and difference signify a "certain quality" under a figure of appellation, we do not understand that it signifies "certain quality" in the same way as "white" which under a figure of appellation seems to signify a quality about a substance: because "white," through the quality which it signifies about a substance, signifies nothing but a quality which truly and according to itself is a quality, and an accident of that subject about which that quality is placed is signified in a figure of appellation through denomination: but the "of what sort" which "animal" or "man" or "rational" signifies, is an essential quality which signifies a certain substance perfected by that quality. But through that quality in the genus marked according to a figure of appellation, a further determination occurs in this, because the genus is determined to signify more things as regards the ambit of commonality than in the species: for both the species and the genus are determined by the quality of the difference, but the genus is determined through its quality to signify more

than the species, because the genus by its quality determines for itself subjects differing in species and number, while the quality which determines the commonality of the species does not determine the species except to the end that it contains things differing in number alone. And therefore he who says "animal" encompasses more in the quality of the animal than he who says "man" encompasses in the essential quality of the man: although the quality of both is common to many.

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### CHAPTER IX.

### *Concerning the property of substance which is that nothing is contrary to substance.*

Now it seems necessary to speak concerning the properties of substance according as it substands accidents, and is the subject of other genera: for because, as Aristotle says, the subject is not any contrary and for that reason is the subject of contraries: so it is in substance and its property that nothing is contrary to it. This, however, is proved by induction, because nothing can be contrary to first substance for the reason that it most of all substands, and to that which substands each contrary, nothing can be contrary, it follows that something could not even be imagined (if imagining were permitted) to be contrary to first and principal substance, as to any man nothing is or can be contrary. But indeed neither to man, who is a second substance, and generally to second substances can anything be contrary, nor is anything contrary to animal, which is some genus.

Certain people, however, object that nothing is corrupted except a contrary by a contrary: but substance is corrupted: therefore it has a contrary by which it is corrupted. Furthermore, as is held in the second book of *On Generation*, fire is contrary to water, and air to earth: these however are substances: moreover many such sophistic things can be objected, all of which Aristotle solves. For to a common subject nothing can be contrary according to itself, but it has contrariety in the dispositions of its qualities, and thus one thing is corrupt-

...upted by another, and a contrary acts upon a contrary, as the thick upon the subtle, and the heavy upon the light, and the hot upon the cold, and so with the others. This contrariety, however, is not of the substance which is the subject, because if it were contrary to anything, it could not be the subject of both contraries.

And note, that contrariety is spoken of in many ways: first, the perfect distance of opposite differences in the same genus, whose subject is the first genus, to which those contraries are reduced as to one genus, and as to one subject, in which those contraries exist in power and not in act, as Aristotle seems to say, that in every first genus there is one first contrariety. And according to this contrariety, it is a property of substance (according as it substands and is a subject) not to have a contrary. According, however, to that by which substance is called an essential form which is a difference, in that way it has a contrary: because one difference is contrary to another. But

we do not speak of substance in this way here, because we do not posit the difference to be in the genus of substance, according as we speak of substances as concerning substanding and concerning the subject.

The Philosopher, moreover, considers the first contrariety spoken of in this way, who reduces to one genus those things which are of the same account of substance in some way. Contrariety is also called habit and privation, or contrary forms about the same matter which substands both: and it is substance called from substanding, and to it again it belongs to be contrary to neither, as is proved at the end of the first book of the *Physics*. Contrariety is also called the complete distance of passions and qualities about the same subject, which remaining one and the same, is receptive of both contraries, as of white and black, and hot and cold, and the like: and again to that which substands each of the contraries, it belongs to be contrary to none: and this is the true understanding of Aristotle, who says all these things and proves them by the reasons which have been brought forward.

Although, however, this is a property of substance and belongs to every substanding substance, it is not nevertheless appropriate to substance alone, but is a property of many others: for quantity has nothing contrary, nor line, nor surface, nor body, and so with the others. By a similar induction it is proved in discrete [quantities]. Nothing is contrary to the number ten, nor to five, and so with the others.

All these things, however, have or seem to have sophistic instances: because someone perhaps in discrete things would say many are contrary to few, or great to small, or short to long: how these are opposed is to be determined in the tenth book of the *First Philosophy* (Metaphysics). But here it must be said that these do not express opposite quantity, but qualities spoken of about quantity. But that quantity has nothing contrary is proved by a similar [reasoning] as was proved concerning substance: for quantity is subjected to these, or substance by reason of its quantity according as it is a quantum: thus to none of these is it a contrary.

Whence it is concluded generally that of things determined to the nature and species of quantity, none at all is or can be contrary to any other determined to the nature and species of quantity: but it might be a contrary in this way, just as in that way alone it is granted to substance to have a contrary: but insofar as substance is a subject and substanding, it can have a contrary: which cannot be, as has been proved here. In this way therefore, and not otherwise, are the words of Aristotle to be understood.

<!-- cap:1.1.10 -->
### CHAPTER X — *Concerning the property of substance which is not to receive more and less.*

There is again something proper to substance, which indeed to all, but not only...

...belongs: for it seems that substance receives neither more nor less through intension and remission. This, however, I do not say because one

substance, called so from substanding, may not be more a substance than another: for this has already been said in the preceding parts, because first substance is more a substance than second substance. But for this reason we say that that property belongs to every substance, because each and every substance, whether it be second or first, is not said to be more now and less then or at another time in respect of that very thing which it is, by the fact that it is intended and remitted according to substantial being: for a man is called neither more nor less a man than himself, nor is one man called more or less a man than another through intension and remission, in the way that "good" and "white" [are]: and the same thing is called more or less white than itself at different times, and one thing is called more or less white than another, and "good" is called more or less good through intension and remission. But substance, whether first or second, is not called more or less substance in this way through intension: for this thing is called now not at all more or less a man through intension and remission than it was previously a man: for which reason it is generally concluded that substance, in that it is substance, does not admit of more and less.

The cause of this is what has been previously stated, that it does not belong to substance to have a contrary: for that which is "less" according to intension is that which has more of the contrary, and "more" is that which has less of the contrary: such that "contrary" is taken

broadly. For in some things there is opposition as privation and habit, as between good and evil: in some things, however, two opposite motions toward the same thing and from the same thing are contraries, and thus it admits of more and less, according as those adverbs "good" and "evil" are, and in this way intended and remitted things intercept [something] of the contrary: in some things there are contraries through contrary forms, and in those there is intension and remission by the fact that they intercept motion in every medium from the contrary extremes by casting off one and receiving the other, according to what Aristotle says, that the whiter is the less mixed with black.

And in this way substance cannot admit of more and less: the cause of which has been given in the science of universals by Porphyry: because every substantial being is always the same and simultaneous, and therefore it cannot admit of more and less: because, as Avicenna proves, if it did admit of "more," it would follow that the substantial being itself would approach closer to the substantial form through the acquisition of that form, which is false, since it has no medium; for between being and non-being there is no medium, just as between white and black there are many media: and therefore according to substantial being there can be neither intension nor remission in anything.

Furthermore, when it is opposed that generation and corruption are changes in substance: and every motion is successive like time, which is

its measurement: and in such a succession there is a recession from one limit and an approach to another continuously: this however seems to be "more" and "less" according to intension and remission: therefore in substantial being there seems to be intension and remission.

Furthermore, one substance is miscible with another, as Aristotle says and also proves. But mixed things are necessarily intended and remitted, as is held from his words in the same place. Substance therefore seems to receive more and less, and intension and remission.

All these and similar things are objected sophistically, because that proof which proves that substance does not receive more and less by the fact that it has no contrary is necessarily concluding. To that therefore which is said concerning change, it must be said that change and generation and corruption are spoken of in one way as each is a simple change, which (as Averroes says on the book *On Sense and the Sensible*)

...sible) is the limit of motion and not motion. But the limit of motion is that in which motion has [attained] to having been moved and not to being moved: and this change is simple between being and non-being, between which nothing can be a medium, and therefore in this there is neither intension nor remission. And therefore Aristotle says that generation and corruption are not motions but changes. There is however change spoken of in this way, or generation and corruption, mixed with motion, which is alteration, as when from altered seed gradually an

animal or a man is made: and then intension and remission are not referred to the being and non-being of the substance, but rather to the active or passive qualities by which such generation is completed. And this is when active and passive qualities alter and move the matter insofar as they are instruments of the substantial form, which exists in the seed as the forming and craftsmanlike principle. And then the substantial form is said [to be] also in succession not for its own sake, but for the sake of its instruments which are the active or passive qualities acting or suffering in the matter of the seed. And in this way Aristotle says that something is not living and animal at the same time, and that something is not animal and man at the same time: not that something is a medium between living and non-living, or between being an animal and not being an animal, and between being a man and not being a man: but because by the action of the first qualities insofar as they are instruments of heaven, or of the formative power which is in the seed, the matter first approaches toward the power and toward the act of the one which is living, and afterward toward the power and toward the act of the other which is animal: and this is not to be intended and remitted, but rather, in the same form according to power and act, to approach more and less toward the true imposition of the name.

As for what is objected concerning the mixture of the substances of an animal, it does nothing at all for the purpose, because in a mixture there

is no intension and remission according to the substances of the mixed things, but according to the qualities of those substances. And therefore intension is referred to the qualities and not to the substances. It is clear therefore that it belongs to substance to receive neither more nor less.

<!-- cap:2.2.11 -->

### CHAPTER XI.

### *Concerning the property of substance which is, that substance remaining the same in number through its own change, is susceptive of contraries.*

Most of all, however, it seems to be proper to substance, which is also a "proper property," and belongs to every [substance] and only [to substance] and always, that while it is one and the same in number, it is susceptive of contraries, or [is capable] of being susceptive. I say, however, that while it is one, there is a contrary power of receiving. This, however, substance has from the fact that it is a subject being complete in itself: and this it has from the species insofar as it is substance, and this exists insofar as it is substance: because first substance is from the fact that it already substands individuating accidents. And therefore I say "in number" on account of first substance in which second substance is, and in which it receives and has the truth of substanding.

From this it is clear that second substance, insofar as it is in first substance, is a perfect universal being, and consists of a formed genus and a difference forming [it] toward a perfect being.

From this, however, it receives the power of substanding accidents, which it would not have if it were not in itself a perfect being, because what is not perfect in itself cannot give being to another by the fact that it exists in it. Thus therefore, a being perfect in itself and the same in number exists through the division of individuating matter: such that insofar as second substance is in first, it is one perfect [being]: insofar as it is individuated through undivided and one matter, it is the same in number. Thus to be one and the same in number subjectible to its own contraries is a proper property of substance according as it is called...

...substance from the act of substanding, as has been said in the preceding parts. And in other things of other categories, one will not have nor find anything to bring forward to which this property belongs. Whatever things of other genera are not substances called so from the act of substanding, [it is] not in such a way namely that a thing of another genus is susceptive of contraries, while remaining in itself one and the same in number. As if we should seek in things which are in the genus of quality, and say that a color while remaining one and the same in number, will not be white and black through succession, as namely to be actually white, and afterward actually black.

But perhaps if it is a medium color, it will have in itself white and black mixed: but this is to have contraries mixed and in power, and not to have both in act through succession while the same subject remains. Similarly if someone

should bring forward something from the genus of action, which seems to be susceptive of contraries, and say that the same action is depraved and virtuous, such as an action of the deliberative will, we say that the same action remaining numerically one, cannot be through succession depraved now, and afterward virtuous: because depravity and virtue are accidents inseparable from the action: and therefore a depraved action while remaining the same will never be virtuous, but another [action] of likeness to it in cause (in that it is voluntary) can be virtuous. Similarly one and the same numerical line will not be straight and curved through succession: and similarly it is in all other things of other genera which are not substance. Only substance, however, since it remains one and the same in number in a subject which is substance, is capable of contraries, such that it is now under one and afterward the same numerical [substance] is under another, as is clear by induction, as a certain man who is a first substance, since he is one and the same in number, is sometimes indeed white, and sometimes however black; and sometimes hot, and sometimes cold. Similarly according to contraries of morals, sometimes indeed depraved and afterward virtuous, and not depraved and virtuous at the same time.

In other categories, however, no such being is found.

But perhaps someone, insisting against what has been said, will say that a proposition which is in the genus of discrete quantity, or a vision

or an opinion which is in the genus of quality, is such a thing according to which the same proposition remaining numerically the same, seems to be true and afterward false through succession, and thus to receive contraries. Nor should stress be laid now on whether truth and falsehood are opposed contrarily or privatively: as if we should say in an example, that this proposition "someone is sitting" while he sits is true, and the same proposition remaining the same in number through syllables and the operation of words will be false with him not sitting. Similarly however it is concerning the vision of someone opining. For if someone should opine that someone is sitting, while he sits, he will opine truly: which opinion remaining the same in the soul of the one opining, will be false with him rising, if he retains the vision of the same opinion concerning the same one rising, which he previously had while he was sitting.

But to this it must be said that even if someone receiving this should grant that it is the same proposition, or the same opinion, which thus receives contraries, which is nevertheless false, as will appear below, because truth and falsehood are in such things as in a sign, and not in a subject. We say nevertheless that, this being granted, there is a difference in the mode of receiving contraries. For those things which are in substances, being themselves changed and altered according to themselves, are susceptive of contraries: for when that which is now cold has been made from that which was previously hot,

the subject itself is changed according to itself, for it has been altered: and that which from white becomes black, has been made other and altered. Similarly it is when from depraved through alteration it becomes virtuous, and similarly it is in all other things which are changed from a contrary into a contrary. Whence that which is receiving change according to itself, becomes susceptive of contraries: but a proposition indeed and an opinion, in which truth and falsehood are as in a sign from the account of another toward them

...they indeed remain immobile, and changed in nothing. But when the thing is moved and changed, from whose relation toward them they are made true or false, a contrary occurs concerning the proposition and opinion; for the proposition which is "that someone is sitting," or the opinion, while the same proposition and opinion remains, but the thing being changed, has become false, which was previously true. Similarly however it is if the thing be moved toward that which previously it was not, then the proposition or opinion which was previously false, becomes true, with no change of itself having occurred. In substances, however, it is not so, but they themselves being changed according to themselves, are susceptive of contraries.

And in this way Aristotle accepts this property, that [substance] remaining one and the same in number is susceptive of contraries through its own change. And in this way it belongs to every and only and always to substance. I say however "to every," insofar as it is substance under the

category, since it belongs to it to be changed according to itself. And I say "to only," because although a proposition and an opinion seem to receive contraries, yet not according to their own change, but according to that of another. And I say "always," because this belongs to substance while it is substance.

But against this there seem to be three [objections]. One is concerning intelligences, which some place in the category of substance, and yet they do not seem to be susceptive of contraries according to their own change. The second is concerning celestial bodies, which although they are in the category of substance, yet do not seem susceptive of contraries according to their own change: for nothing is contrary to heaven, as is proved in the first book of *On the Heavens and the World*. The third is, that a certain proposition or opinion seems to be changed according to itself, so that namely while remaining the same in number it is susceptive of contraries through its own change.

Let us say therefore to the first, that intelligences are in no way in the category of substance, as Avicenna proves, and as we have proved in the first philosophy. For a being in a category, by the fact that it is in a category, has something of potentiality, since the nature of the genus is material toward the difference: and therefore a being in a category is not simple: but an intelligence is entirely simple, as will be shown below: and therefore it is not in a category.

Furthermore, even if it were granted that they are in a category, it must be said that substance is spoken of in three ways: in one way, a being through itself not in a subject, and in this way it is said of God and of all substances: in another way it is spoken of according as it is something composite, a being perfect in itself like "this somewhat": and in this way it is not said of intelligences: in a third way it is spoken of concerning that which is changeable according to itself, and in this way Aristotle here accepts substance, and says that this is susceptive of contraries according to its own change.

Similarly celestial bodies, which fall directly into the category as composite substance, and yet according to their own change they are not susceptive of contraries, as it seems: because a celestial

...body, as Averroes says, is not susceptive of contraries.

Furthermore, also what is said that nothing is contrary to substance, seems to have an instance, because the difference is substance and yet it has a contrary. For that the difference is substance, has been proved above: that however it has a contrary is clear, since rational and irrational are contrary differences in the genus of animal.

To the second let us say, as Averroes says, that the celestial body is not in the category of substance except equivocally: since it does not have matter of the same account with the matter of things generable and corruptible: and therefore it is not composite of matter and form like

this [terrestrial] substance: and therefore it is not susceptive of contraries.

To the third we shall say below, that a proposition and an opinion are in no way susceptive of contraries according to their own change.

As for what is objected concerning differences, it must be said that differences are substances insofar as they are parts and principles of substance, and not insofar as they are the subject and substanding [thing]: and therefore although differences have a contrary, they do not nevertheless have a contrary insofar as they are substanding.

As for what some say concerning intelligences, that they are susceptive of contraries according to their own change, saying that an intelligence can be depraved and virtuous, just as they say concerning the Angels who through will were made evil, we say that this can in no way be proved from the principles of any philosophy: since an intelligence, according as it is an intelligence, is a being in act, and does not have anything of potency: and therefore it is not susceptive of contraries.

Certain Arabs and certain Jews, however, speak of intelligences according to the account of their own law, which they can in no way prove from the principles of any philosophy, saying that the intelligences are Angels, who are locally moved and sent to men, which [opinion] had its origin and was assumed secondarily from the Stoics and primarily from the Epicureans, and from those who established laws. And according to these, the intelligence possessing [it] is a genus

and species and individual. And the genus indeed is in the intelligence everything which is potential in it, just as is that which is in it of the nature of the universal agent light: the species however is that which is in it of the nature of the determining form itself: while the individual is that which is in it of the nature of its own singular and occult being which it has in itself. And according to these, the intelligence is susceptive of contraries according to its own change, because they say it can be changed from good into evil, and from true into false. But all this is outside the limits of philosophy, as will appear below.

Let us return therefore to the purpose and say, that although a proposition and an opinion seem to be susceptive of contraries, yet not according to their own change. For the proposition which is "that someone is sitting," while remaining numerically the same, is not susceptive of contraries according to its own change: since the proposition itself has been changed in nothing in itself, but the thing being changed, a contrary habituation of the proposition toward the thing has been made: and therefore the proposition is not susceptive of contraries according to its own change. Similarly it is concerning opinion.

In substances however it is not so, but [substance] itself remaining numerically the same is susceptive of contraries according to its own change: as the numerically same man through his own change sometimes becomes white, and sometimes black. And in this way it is proper to substance, that remaining one and the same in

number it is susceptive of contraries through its own change.

This, however, does not belong to differences: for opposite differences are by nature made to occur about the same genus, and cannot be in act in it at the same time, for the genus is proportioned to matter, as has already been said very often.

From these things therefore it is manifest, that the proper property of substance is according

...its own change being susceptive of contraries, and that this belongs to every and only and always to that substance which falls under the genus of substance, insofar as it is a constituted being and not absolved from the predicamental account.

Concerning what has been said, that a proposition is susceptive of truth and falsehood, remaining one and the same through the change of the signified thing, there are many doubts — namely, what the signified thing is, and in what manner the signified is in the proposition. For the proposition which signifies truth and falsehood is solely the proposition which is called an enunciation or interpretation.

For it seems that a proposition in signifying is not changed by the fact that the signified thing is changed: for this proposition, "I am sitting," signifies that I am sitting while I sit; nor does it signify any less that I am sitting while I am not sitting, but equally and always signifies that I am sitting. Therefore in signifying what it signifies, it is never changed, for it always does what it

received from the first institution to signify — namely, that I am sitting — and this it always and immovably does. Therefore it is disposed in one way toward signifying this, whether I sit or do not sit. But what is disposed in one way in signifying is not now true and now false according to the change of the thing. It seems therefore that a proposition is not susceptive of truth and falsehood according to a change of the thing.

Furthermore, every sign is true when it signifies in the way it was instituted to signify. But this proposition, "I am sitting," was instituted to signify that I am sitting, whether I sit or do not sit. Therefore whether I sit or not, it does what it began to do from the first institution: but it is significative of truth when it signifies as it began to signify; therefore whether I sit or not, this proposition, "I am sitting," is always true in signifying.

Furthermore, just as a proposition is significative of a thing, so it is significative of the concept or thought or opinion of the one who utters that proposition, since words are marks of the affections which are in the soul. Therefore just as it is susceptive of truth and falsehood according to the change of the thing, so it is susceptive of truth and falsehood according to the change of concept or thought or opinion of the one who utters the proposition. For just as truth is the adequation of words and things signified by the words, so truth is the adequation of words and the concept expressed by the words. It seems therefore that this proposition, "I am sitting," changes from true to false and conversely when the one who

utters it changes according to the opinion that I am sitting or that I am not sitting. And Pythagoras already said this about this proposition, who posited truth and falsehood in speech by opining or not opining that which is said in the signifying word.

But in the same manner Anselm seems to prove: because truth in a sign is immobile and one in every sign that signifies: for a sign is true when it signifies that which it received to signify in the truth of the first wisdom. But a sign always signifies that which it received in the first truth to signify; therefore when it signifies this, whether the thing exists or does not exist, it is always true in signifying. Therefore whether the thing exists or does not exist, the proposition which is a sign is always true in signifying. Therefore a proposition is not susceptive of truth or falsehood according to a change of the thing, as it seems.

Furthermore, according to this it seems that one truth is signified and exists in all true things: for every sign signifies what it received to signify in the first truth; but what is in the first truth is one and the same, not diverse; the same

therefore and one is signified in all true things, as it seems.

**Sixth.** Furthermore, the same and one is that which is immobile at the change of all things: but to signify this which it receives to signify in the first truth, is immobile at the change of all things: therefore the same and one is that which is signified in every signifying sign: but this can only be the first truth, as it seems: it

seems therefore, that the first truth is signified in every signifying speech, and thus the whole seems to be false which was said, namely that speech signifies true and false in that the thing signified is, or is not. These and many such sophisms can be brought in against those things which have been determined, if the reasons of Heraclitus and Pythagoras and Anselm in the book *On Truth* are considered.

**Solution.** To these things therefore and the like it seems it must be said, that the truth of a sign, which is an enunciation or the saying of an enunciation, is the adequation of the signifying voice and the thing signified through the voice, and therefore truth and falsehood is in the voice as in a sign related to the signified thing: on account of which also the signification changes at the change of the signified thing, as was said above: and now the speech remaining one and the same at the change of the thing, it changes from true into false, and conversely from false into true.

**To the first.** But to that which is objected that it always signifies the same, whether it be the thing or be not, it must be said that this is true: but the signification is not true or false in that it signifies the same, but the signification is true or false in this, that the signification is equated or not equated to the thing, and therefore the thing having become unequal to which the sign is not equated, the speech is false.

**To the second.** But to this which is objected, that it signifies what it receives from the

first institution, it must be said that from the first institution it received that it should signify the thing through its adequation to the thing: and when it is not equated to the thing, then it does not make that sign which it receives to make from the first institution: for no one instituted a sign to signify such that it has a vague signification and one not equated to the signified thing: whence when it is not equated to the thing, then it fails from this which it received from the first institution: for it was not instituted only to signify, but it was instituted so that through the adequation of the signification it might signify the thing as it is, neither more nor less. For to this end speech was invented, that while we cannot use the things themselves in communicating with each other on account of the infinity of things, and on account of this that we do not always have many things, we might use words for things, when we wish to open and communicate to each other the concepts and affections which we have about things.

But that which is objected about this that speech always signifies this which it received in the first truth to signify, it must be said that in the ordination of the first truth it did not receive to signify only by a vague signification, but to signify the thing as it is by the account of the thing, with the signification equated to the thing: and this I say saving the faith of Anselm. And therefore it is made susceptive of false and true through the change of the thing. But if it had not received except the adequation of the institutor

and the sign instituted for signifying, then in some way it would be true what is said, but this in my judgment is not true.

But to this which is said that the true is in the adequation of the intellect or concept to the sign which signifies the concept, it must be said that the concept or intellect or opinion or in whatever way that which is in the soul may be called (whose uttered voices are signs) is not absolved from the things which are the cause of the concepts: and therefore the thing is equated to them insofar as they are conceived: for speech was not invented for signifying a feigned concept, which is not except in the conceiver, because the speech would be useless, because through speech

the hearer would conceive no truth or signification concerning the thing. And therefore the saying of Pythagoras and Heraclitus does not hold truth: for they said that truth is in apprehending or opining insofar as the opinion is a passion of the one opining. But this is true — that truth is in opining or conceiving insofar as the concept or opinion is a passion or conception adequated to the signified thing. And therefore speech adequated to such a concept is also adequated to the thing. And therefore Aristotle says that truth is the adequation of the thing to the intellect.

But to what is said — that all things are true with the first truth, because they are signs of the first truth insofar as they signify what they received to signify in the first truth — it must be said, as before, that in the first truth they

received to signify things, and to signify truth with an adequated signification, and to signify falsehood with a non-adequated signification. And therefore when the signification of the sign is changed, the adequation is changed. And what they say about the immobility of truth, it must be said that that immobility is only about signifying as related to signifying, and not about the sign adequated or not adequated to the signified thing. And therefore while that sign remains, truth is immobile; but that first truth can exist because it is corrupted and changed when the sign is changed.

But to what is said — that every sign signifies that to which it was ordained to signify in the first truth — it must be said that although this be conceded, it does not follow that all things are true with the first truth, because in the first truth it is ordained that a proposition signifies things through equality to them insofar as they are or are not. And thus in the first truth words are referred to signifying things. But if truth were nothing except the adequation of the word to the first truth in signifying only, then what is said could be true in some way.

Let these things said about the category of substance suffice.

Among the predicables which are of the nature of accidents of substance, the first predicable that occurs is quantity, because it immediately follows, as Rabbi Moses says. For since substance is potentially divisible according to that which is on the part of the subject and matter which

underlies both the second substances and the accidents — but what is potentially divisible is not reduced to act so as to become or be made actually divisible except through quantity — it is necessary that the first thing which happens to substance be quantity.

Furthermore, since matter, as Avicenna says, in its sufficiency is subject to generation and generally to change insofar as it is potentially of three dimensions and not actually formed to any being, through generation it will actually become of three dimensions. It is necessary that what first happens to matter, so that it may be receptive of the motions of forms and of motion itself, be quantity, because otherwise the mobile would not exist unless it were quantified. Since Aristotle proves in the sixth book of the Physics that nothing is mobile unless it is quantified. For these reasons, therefore, quantity is to be ordered immediately after substance.

Furthermore, because the forms of alteration are not receptible except through quantity, since existing in substance itself, they are made quantified through the quantity which already inheres in the subject, such as whiteness and heat and things of this kind. For these reasons, quantity is reasonably posited immediately after substance: for among the genera of accidents none is entirely absolute except quantity and quality. But substance is not receptive of quality — especially with respect to two of its species which are passion or passible quality, and form or figure consisting around something — except through

the mediation of quantity; and therefore quantity adheres more immediately to substance than any other genus of accident.

But because quantity has many divisions, we must first make quantity known through its division, because if we were to make it known through a definition, we could say nothing except that it is a measure of substance. And since the account of measuring is not through one mode in the continuous and the discrete, and in what has position in its parts and in what does not have position, we do not have one account that would be definitive of quantity as taken in its genus. For since, as Aristotle says, each thing is measured by the smallest of its genus, it is necessary that as the things measured differ, so also the measures differ, and in the same way the account of measuring differs in them. Therefore, not having a definition of quantity taken in its genus, in order that it may be clarified in some way, it is necessary that it be made known from posterior things through division.

Therefore, compelled by this necessity, we say that quantity, divided by its first differences in the genus, is such that some quantity is continuous, and some is discrete. But we do not

say, by dividing, that quantity is divided by continuity and discretion: because continuity and discretion are not predicables of quantity, since they are forms signified in the mode of abstraction, which are not in the genus of quantity, but are named qualities which are said to be around quantities.

Thus therefore, touching upon what is in the genus of quantity, we say that some quantity is continuous and some is discrete. But before we assign what these parts are through definitions, we must introduce another division, whose parts are shared by each of these dividing members: and this is, that some quantity is from among those which have position in their parts, and some has parts not having position, as will be clear below.

But in introducing these divisions, we shall make no mention of unity and the point, because these are not in the genus of quantity except through reduction to the genus, as principles of a genus are reduced to the genus. For the continuous having position flows from the point as from a corporeal indivisible principle. But the discrete having order in its parts in place of position — such as number — is caused by unity as by the essential principle of its discretion. And all these things will be manifest below.

And because having position in parts happens to continuous things or to continuous quantity, and not having position in parts happens to the same, therefore the members of the first division could not be explained unless the second were also given first. But with these things thus premised through two divisions, it follows that we should explain or declare the members of these divisions. And because the account of the discrete (as Boethius said in the prologue of the Arithmetic, and before him Pythagoras had said in the Consistentia) consists in the proportions

of numbers, therefore discrete quantity is to be declared first, especially because the principle of this — which is unity — is simpler than the essential principle of continuous quantity — which is the point. For unity is a simple indivisible, not having position, but the point is an indivisible posited or having position.

But when we said in dividing that some quantity is continuous and some is discrete, we placed the continuous before the discrete with respect to us: for with respect to us we know number through the division of the continuous, as Aristotle says; although unity — whose iteration essentially causes the whole number — is with respect to the nature of the thing simpler than the point whose flow essentially causes the continuous. Therefore in this consideration we say, first describing the discrete by example, that discrete quantity is such as number, which has order, and speech, which has words and order and account. But continuous quantity, to be declared by way of example, is such as line, surface, and body.

Furthermore, in addition to these, there are also time and place: for these, beyond the aforesaid, have another cause of their continuity. For the former have the cause of their continuity among themselves and essentially contained within their continuity — as the line has the point, the surface the line, and the body the surface. But place in its continuity has the boundary of the located body, which is not place; and time is continued through the continuity of motion, and motion is continued through the continuity

of the mobile and the continuity of the magnitude existing between the two termini of motion. For this reason therefore it is said that besides these there are time and place. But all these things will be more clearly evident below, when we speak about the continuities of each of these individually.

But that number is a discrete quantity is proved thus: first indeed that

is quantity, because that by whose measuring the quantity of discrete things is rendered, that in itself is quantity: but by number the quantity of sheep, dogs, men, and of other things which are discrete and are not contained under one form of continuity, is rendered: therefore number is quantity. And that it is a discrete quantity, is proved by this, that continuous and discrete are opposite differences, first around the first genus of quantity: but these are quantities, and not continuous: therefore discrete: because we do not know discretion except by the privation of the continuous, it is necessary that this be proved by the privation of continuity. I say therefore that of the parts of number no one is a continuous indivisible terminus, to which as to one they might be coupled, so that it might be the terminus of one part and the end at which its continuation is finished, and be the terminus of the other so that from which its continuation begins. But this is proved inductively and by example, just as if five and five are placed as particles of the number ten or a denarius, those particles have no common terminus which is the end of one part

and the beginning of the other as continuing: for the first five in order do not have the unity at which they are finished as the same from which the following five begin according to substance, but they have it dividedly and discrete from the unity from which the following five-fold begins: and thus it is concerning all parts of the denarius. For always the parts of the denarius in whatever way they are taken, are always discrete, just as if seven and three are taken, or two and eight, or six and four, or ten unities, they are always taken not coupled and not continued: so that each in their discretions are in no way continued by being coupled in some way. Therefore number is a discrete quantity, and that number is formal, which is one, two, three, etc., by which we render the quantity of discretion of those things which are numbered. Concerning this however it will be more fully manifest below.

But similarly speech is also a discrete quantity, and is of the number of discrete things, so that all its particles are separated from each other. But why or for what reason speech is in the genus of quantity is manifest: for everything whose quantity is measured by something measuring and certifying, is quantity and in the genus of quantity. But the sound of a letter and a syllable, whether it be short or long, is measured by the duration of pronunciation. Therefore speech consisting of these, is quantity and in the genus of quantity. But I say speech uttered with a voice, or, what is the same, by the uttering of a voice or by vocal pronunciation: for thus it is not one

sound or a voice continuously sounding or calling, but it is an aggregated and discrete calling of sounds, which sound of discrete elements in letters and syllables by its multitude and order makes up this whole which is a word or speech. For thus the division of a letter with the division of a letter is not a continuum, but discrete from it, and composed with it makes up syllables, and a syllable composed with another syllable makes up a word, and in that way a word with another word makes up speech: for in all these — syllable, word, and speech — the constitution of the whole occurs by the congregation and order of discrete things. Which is manifest from this, that the sounds of elements and syllables and words and speeches are coupled at no common terminus. For if I say, *baculus* [staff] or *virga* [rod], all the letter elements sound discretely, and there is nothing continuing between them, by whose continuing one sound might be coupled to another. And similarly it is concerning the sound of letters in a syllable, and the sound of syllables in a word, and the sound of words in a speech: for there is no terminus at which syllables are coupled in pronunciation, but always each one remains divided according to itself discrete.

But here it must be noted that although all the particles of speech and number remain discrete, nevertheless they are bound under one specific form of discretion, for the number of unity is constituted by aggregation and order, and whatever unity is the terminus of an ordered congregation, in...

which the aggregation stays as in that completing unity, so that the end and complement is the form of that number — such as the fifth in the group of five, and the tenth in the group of ten, and so on for others. And therefore Aristotle says that ten is not three and seven, or twice five, or eight and two: but it is necessary to take the form in the last unity insofar as it is the end of an aggregation ordered to that unity which is the complement of such an aggregation.

Similarly also in speech insofar as it is in literate pronunciation: for that is an aggregation of sounds, elements, syllables, and words, toward one whole completing the ordered aggregation — just as in the case of letters in a syllable there is one completing, and of syllables in a word there is one completing, from which it is called one word in the whole aggregation of syllables. Similarly also of words in speech there is one completing, from which that whole aggregation of distinct and ordered sounds is called one speech, although the sound of any element or syllable remains distinct in itself and neither continuous nor mixed, so that one is short, and another long, and one is shorter than the short, but another is longer than the long: and in such things nothing makes one except order to the one: and therefore that extended aggregation in itself is a discrete quantity like number: on account of which speech is quantity, whose indivisible is not one, the iteration of which makes that aggregation, but the indivisibles are many, which are the sounds of elements in letters, and

the sounds of syllables in words, and the sounds of words in speech, but among these the only indivisible is the letter or the element of the letter, from which, ordered with another, a syllable is made, and from a syllable ordered with another a word is made, and from a word ordered with another a speech is made. But among the elements of letters there is not one indivisible, which being iterated through substance, might complete that whole aggregation, as is unity in number. Unless someone says that some one element of a letter is the first, which is syllabically iterated in all elements of other letters, and that the elements of other letters consist of the iteration of that one. But this, although some have said it, is nevertheless false and cannot be proved. Therefore we say thus: that speech is composed by the order of many indivisibles according to the sound of elements, and in this speech differs from number, and is diverse from number itself according to the species of quantity. But if it is objected, that every quantity proceeds from an indivisible, it must be said that this is true, that just as number from unity, and the continuous from the point, and time from the instant, so speech proceeds from the indivisible of literate sound: but this indivisible is not the element of some letter, whose element iterated makes such a quantity of speech, but the indivisible whose account is preserved in any sound of any letter aggregated with another in such a pronunciation. For from this Democritus and Leucippus, and certain others positing atoms, did not call one certain atom a

principle, but many atoms differing in figure and order and thus constituting all things. And they gave an example of their reason in letters: for in literate sound or pronunciation there is not some one indivisible cause of aggregation, but many things differing in figure, sound, and order. For thus speech is a quantity measured by a syllable, or a long or short letter of pronunciation, and distinct in the whole heap of such an aggregation, and it is quantity in itself, so that its substance and quiddity is quantity, differing in the aforesaid way from number. These are therefore the two first species of discrete quantity.

**CHAPTER III.** *In what way line, surface and body are continuous quantities.* Now it remains to say in what way continuous

quantities are line, surface, and body. For it was fitting to speak first about the discrete, because the indivisible from which number is perfected and the indivisible from which speech is perfected are simpler than the indivisible from which the continuous is perfected. For unity is an indivisible, neither having position in the continuous nor continuing those things of which it is the terminus. The literate sound is also indivisible, neither an indivisible posited in the continuous having position, nor continuing those things of which it is the terminus or principle: because if it is a principle, it is not one from which there is continuation; and if it is a middle, it is not one and the same end of one and beginning of another, as the point is that continues; and if it is an end, it is not a terminus to which a continuous is contin-

uously joined in the form of continuation. And therefore the indivisible of literate sound is also simpler than the point. On account of which the natural order demands that first about number, then about speech, and third about the species of continuous quantity should be said.

But what some say — that it was necessary to speak first about number because number is found in body and in incorporeal things, and the continuous is not, and that things from the institution of the world were made by the proportions of numbers — these reasons are not true, nor relevant to the matter, and are founded upon something false. But about those things let those who assert such reasons see.

Therefore, by the necessity we state, after number and speech we say that the line is among the number of continuous things: for a continuous terminus can be taken from any point, to which all the parts of the line which are under one form of continuity are joined. This common terminus is the point, whose flow or drawing into the continuous makes the line. And therefore the line, although it is not divided at a point, nevertheless cannot be divided except at a point, because the line everywhere is substantially a point — substantially, I say, from the substance which is like matter: for a point extended or protracted into the continuous is a line, whose protraction itself is the quantity and whose protracted substance is the point. And thus the line is from one substantial quasi-subject which is the point, and from one formal thing which is the

protraction extended into the continuous which is the continuation. And this indeed is the line. And therefore, because everywhere the material substance of the line is the point, wherever a point is taken that is not absolved from extension into the continuous, there the point is in the account of end and beginning: of end indeed with respect to what is anterior, and of beginning with respect to what is posterior. Therefore the common terminus of this joining of the anterior part with the following through the whole continuous is the point. And because the point is an indivisible having position, therefore its whole intellectual and real extension throughout the whole length of its substance preserves indivisibility. On account of which the line according to breadth and depth is indivisible, divisible solely in length — which is caused not by the point, but by the extension and flow of the point into the continuous, because this extension gives the form of continuity, which according to itself is always divisible.

Similarly, a surface is a continuous quantity: for it is generated by the expansion of a line to the side into the continuous, or from the flow or drawing of a line, as Euclid says. And so it will be a breadth without depth, everywhere measured by two lines cutting each other at a right angle. Because it flows from an indivisible according to depth, therefore it does not have depth; but because it flows from a divisible according to length, therefore according to length it has divisibility. And because the flow of that line is to the

side and not to the point which is the terminus of the line, and the flow is continuous, therefore the surface has continuity in breadth, and from this the surface exists. For the continuity which is in length in a surface is from the line; and therefore the substance of the surface is the line, just as the point is the substance of the line. On account of which, wherever a surface is divided, a line will be the thing dividing it, just as a point divides a line; and wherever two parts are taken in a surface, a line will be the join-

connecting those parts, and is the common terminus of their coupling: for it is the principle of one from which its continuity is, and is the end of the other at which its continuation is finished: for it is plain that the particles of a surface are coupled in the aforesaid way at some common terminus. A surface is called a plane, for the reason that it is understood to be spread out like a plane by the flow of a line, with none of its parts protruding above another. Such therefore is the understanding of a surface according to what is a species of the continuous.

Similarly also in a body it is possible to take a common terminus coupling the particles of the body: for a body is the triple dimension itself, which is generated by three diameters in every part of the body touching and intersecting each other at right angles — one in length, another in breadth protracted from the point of the preceding, and a third in depth protracted from the angle of the aforesaid — for it is generated from the flow or extension of a surface, moved

or extended not in length or breadth, but in depth. And therefore Plato used to say that the substance of a body according to that which it is, is a surface, just as a point is the substance of a line and a line the substance of a surface: and therefore a body insofar as it is a body is divided by a surface, just as a surface by a line, and a line by a point; and wherever you take two parts of a body, those have a surface at which there is the continuity of the preceding, and from which the continuity of the following begins. That surface is therefore a common terminus in the body, which is the end of one and the beginning of the other: and therefore it is something of the one, and something of the other: on account of which it is called the common terminus of continuous things. If however you wish to take a common terminus in the body according to breadth, then, as was already said before, you will take a line as the terminus of coupling. But if you wish to take a common terminus of coupling in length, it is necessary that you take a common point, which couples the parts in length.

Therefore although the point is no part of a line, nevertheless it is something of a line, because it is the terminus of the line, and coupling its parts: and according to that which the point has position in the continuous, so it is the substance of the line, but the formal being is continuity in length, and that is from the intellectual flow of a point into the continuous. And in all the same way the line relates to the surface, so that it is not some part of the surface, and yet it is

something of it, both because it is the terminus of its coupling, and also in this that it is the substance of the surface; and the form of continuity which it places around the substance is from the intellectual flow of the line to the side of the line, and not to the point. According to the same mode also the surface relates to the body, both in that which is the common terminus of coupling, and in that which is the material substance of the body, around which the form of continuity of the body is placed from the intellectual flow of the surface into depth.

From this it is clear that the continuous is divided into infinity insofar as it is continuous: for in whatever terminus an indivisible is taken, it is the terminus of coupling: it will therefore consequently be the cause of continuity, for the reason that it is understood in the account of end and principle, which cannot be understood except through this that it flows from one into the other: therefore the account of division does not take away the form of continuity: while the form of continuity remains, the divisible is posited: whatever things therefore are understood to be divided, an indivisible is always posited for this.

But let it move no one, that we say this happens according to the intellect, since in this book we speak about the ten genera of principles of things, to which all predicables are reduced: for all abstracted and mathematical things are received according to the intellect: for according to being in nature this or that is not found except in light alone, as some say, although their saying

does not agree with the Philosophers. Therefore although these things are received according to the intellect, nevertheless that intellect is caused by specific things and is referred to being: because it says the nature and being of the thing as it is this which it is, as it is signified

...by the name which is the notion of the predicable. And therefore Aristotle says thus: there is no falsehood in those who abstract. Indeed it is most certainly true, although according to being these things are not found distinct in nature: for they are present in this way, as determined in the very substance of quantified things.

It must also be noted that there cannot be a fourth species of continuous quantity having position in its parts and having from itself continuity and substance around which it places the form of commonality and continuity: because it is not possible to understand the motion of anything indivisible in any way except in length, or in breadth, or in depth. For "high" differs from "deep" only in termini. And therefore there are only three species of this quantity, from which predicables can be taken.

It should also be known that a line is a quantity of one divisibility, a surface is a quantity of two divisions, and a body is a quantity of three divisions, for the causes which have been determined in the preceding.

But time and place are also among the number of such continuous quantities: for the present time is joined both to the past and to the future through the intermediate instant which is the

terminus of such a joining. But we take here the present as the divisible time which is adjacent to the present motion and action. And we call the past that which is terminated at the present through the instant which is the end of the past and the beginning of the present. And the present is also joined to the future through the instant which is the end of the present and the beginning of the future. And thus the whole time is continuous. For just as in other continuous things the flow of the continuous is from some one thing indivisible in some manner, so also it is in time.

It must therefore be understood that if there were no motion, there would be no time; and the extension of motion is the cause of the extension of time, just as motion also is the cause of time. But motion is in that which is moved as in a subject. And that which is carried or moved is the same according to substance throughout the whole motion; but according to its being insofar as motion is in it, it is protracted and proceeding from the anterior in space to the posterior, or from the anterior part of space to the posterior without interruption. But protraction, as we have often said, is the cause of quantity. What is protracted is partly here and partly there, by a continuous and uninterrupted protraction. But what is thus divisible is continuous. Therefore motion (which according to protracted being inheres in that which is moved) is continuous — not from itself, but from the space of distance which is between the two extremes of motion. But since it is continuous and quantified in some way, it

follows that there is some measure of it. And because every quantified thing has its own proper measure according to its proper division — just as according to continuous space in the manner of a line or surface or body, it has the ell or the palm or the foot, or the ten-foot measure and something of this kind — on account of which in every diameter a certain render-

its quantity is rendered, nor can it be certified except according to this that it is divided. It is necessary therefore, that by this mode the thing measuring motion, according to the being which it has in that which is moved, be certifying its quantity.

However, in that which is moved according to which motion is its act, there are three things, namely: the indivisible substance of the very thing which is moved, which remains the same in the whole motion; and being protracted in continuous space; and the division of the prior which it receives in the space which it leaves behind continuously, from the posterior which it has already received in protracting it. If therefore it ought to be measured thus, there are three things in the measure rendering its quantity: because otherwise the measure of the measured thing would not be equated: but the thing measuring it thus cannot be intrinsic to it, for the reason that the intrinsic is of another genus: for in local motion the intrinsic to the motion is a flowing "where," and this is not according to its own nature in the genus of quantity, but in the genus of "where": and therefore motion in "where" is

not in the genus of quantity, but is in the genus of "where." But in alteration it is a flowing quality which through the flow does not lose the nature of its proper genus: and therefore just as the quality is in quality, so also motion is in quality. Similarly even the motion of augmentation, although it is in quantity, is not however so in quantity that motion makes it to be in quantity as in a genus, but rather it is in the genus because it is a flowing continuous quantum having position in its parts, just as a body which through the flow does not lose the nature of a body. And therefore motion is not in the genus or species of quantity through a part of motion or through substance, but through this that it is a flowing quantum which by the flow does not lose the nature of a flowing thing. It is similar in generation and corruption, which are changes in substance: on account of which Aristotle says that the way into nature is called nature, since motion and change cannot have a measuring thing around which the substance of motion might be, and around which motion might place its continuity. It remains therefore that it have an adjacent extrinsic measuring thing, and this is called time, and time in its substance and its being is diverse from a line and a surface and a body.

That which therefore through the intellect is adjacent to that which is carried and is the same through substance in the whole motion, since this is always objectified to the presence of the one receiving it, is a present which is called an instant, as if not standing (*non stans*), just

as also that which is moved does not stand as long as motion is its act. But that which is adjacent to its protraction, which according as it is moved, is continuously protracted from the rear to the front, that is and is called time. And that which is adjacent to that which is in the space received in the rear, is called in time "prior" or "past." And that which is adjacent to that which in motion is in the space received in the front, is and is called "future." And that which is adjacent to that which is objectified to the presence of the receiver in the protraction of motion and space, is called "present time." Since however these three — past, present, and future — are not diverse and separate, they are not discrete but are coupled together. But of coupled things there is always a common terminus, which is the end of one and the beginning of the other, and is something of both and of neither in itself; that which couples the particles of time is called the indivisible instant, which indeed according to itself is the substance of time, just as a point is the substance of a line, which by its flow is the cause of continuity, which is the form of continuous succession which is placed around the substance of the instant, as was said in other continuous things. But just as an iterated ell is a number rendering the quantity of a continuum, so the instant distinguishing prior and posterior in motion protracted over the parts of motion, is iterated and certifies the quantity of motion. And therefore Aristotle says that time is the number of motion on account of the prior and posterior.

And therefore it is not inconvenient that time be continuous, and yet be a number: because it is a number just as an ell of cloth, or of another thing measured by an ell. And when it is said that time is continuous, and...

time is a number, it is not understood that it is continuous and a number according to one and the same: for according as it is adjacent to the protraction of that which is moved it is continuous, but according as that which is before is distinguished from that which is after by the joining instant, and this is iterated in the whole motion, thus it is a number. And when it is said that it is a number, it is neither said nor understood that it is simply a number, but that it is the number of motion through the being of motion: but motion through before and after, which is iterated in motion just as that which is moved in the whole space of motion. On account of which it does not follow that time is simply a continuous quantity. And therefore it is manifest that it is not in the two first genera of quantity equally — namely, in the genus of the continuous and in the genus of the discrete — but simply it is in the genus of the continuous and according to something takes the form of the discrete. It is also clear how time flows from this indivisible which is the instant.

But the question remains: why is motion not posited to be in the genus of quantity just as time? especially since Aristotle proves with many reasons that motion is divisible to infinity, and since he expressly says that motion is a species of quantity in the fifth book of the First Philosophy.

But to this, through the things said before, the response is easy: for if that which gives motion its species and name — and consequently gives it its genus, because species and genus pertain to one nature — is considered, then the cause of what is asked will be seen: for a "what-kind" gives to alteration its name and species, on account of which it is called alteration in genus, and heating or whitening according to species. And thus it is similarly "where" that gives local motion its name and species and genus. And similarly in augmentation. And it is easy to see in all others, just as accidental motion which is in all genera. However, the continuity of motion is not from that nature which flows, but rather is caused by the procession of that in which motion is as in a subject: but the subject is not something of the essence of that which is in it, and therefore motion does not have a proper and determined genus for itself. As for other things that were to be said about time, they either pertain to the physicist or to the metaphysician, and therefore let them be deferred to there: for in the fourth book of the Physics the nature of time will be determined. And in that part of the First Philosophy which is about causes it will be determined how time relates to eternity, and how the "now" of time relates to the "now" of eternity. But insofar as it pertains to the logical intention about time, what has just been said seems to suffice.

But now we must see how place is a continuous quantity.

Place is indeed the "where" the parts of a local body are contained, which place is the distance in which the whole quantity of the body is distended, so that nothing of the body or of the parts of the body is outside that distance according to the length, breadth, and depth of the body: for that distance is as great as the body is, and neither less nor greater, but in the whole it is commensurate to the body. Just as the distance of the diameters of the bodies which is protracted between the space of the diameters of the place and of the body, according to being indeed is one and the same, as is proved, with the local distance. And this distance of the place and of the body according to being is indeed one and the same, as Aristotle proves speaking against the Philosopher who is called Xuthus. Although however it is the same according to being, nevertheless it differs by the containing surfaces, and differs by the act of measuring and by the account of measuring. By the surface indeed: because the surface of the place is outside the located thing, and contains and touches the located thing from all sides. But the surface

however of the located thing is within the located thing, and is something of it, and is contained not containing. But in the act of measuring: because all diameters of distance which is called place, are measures measuring in length, breadth and depth, and no one is measured. But all diameters of that which is located, are diameters measured and contained, and thus the measured thing does not measure the distance of the

place, but the quantity of the body not as located but according to that which it itself is quantum.

But taking place thus, place is a mathematical quantity, coupled to the points all the way to the center of its located thing; because the diameters according to being are the same with the diameters coupled to the same center: because the center of place and the center of the located thing are the same according to being, but they differ according to act and account: and because the distance of the located thing is a continuous quantity, it is necessary that place be a continuous quantity, differing in this from others that not from itself, but from the distance of the diameters of the body all the way to the center it has its coupling. But other distances of lines and surfaces and bodies have their coupling and their couplings from themselves and among themselves. For there are diameters differing according to something which have diverse principles of their protraction: for the diameter of the distance of place has the principle of its production the surface containing outside: but the diameter of the distance which is the distance of the located thing, has the principle of its protraction the surface of the located thing existing within the located thing: but the center of both is one according to being and not according to act, as was said. And thus place will be a diverse quantity according to this mode from all other species of continuous quantity: for thus by mathematical abstraction the quantity of place is separated from the quantity of the located thing.

And thus it is true what is said, that the individual particles of place contain the individual particles of the located body. And therefore the particles of both the place and the located body are coupled to one terminus. And thus speaking about place, place must be given to mathematical things, as Aristotle says in the *First Philosophy*.

But place is considered otherwise when it is from the consideration of the natural Philosopher, according to which namely place is that toward which and from which there is motion: for thus it is the surface of the containing body having in itself the virtues of all containers, both of the heavens and of the surrounding elements, through which virtues it generates and saves that which is located in it: and Aristotle does not speak about this place here, because through those properties it is not in the genus of quantity, although in itself it is quantum. In the first mode therefore, considering place, place will be a continuous quantity, for the reason that any of its particles are coupled to one common terminus, and it is a special genus of quantity on account of the cause assigned in the things held before.

**CHAPTER VI.** *In what way certain quantities have position in their parts, and certain ones not.*

Furthermore, some from the number of species of continuous quantity from the particles which are in them, consist of such things having position in the continuous of which they are particles. Others however which are of the genus and of the number of quantities, consist also of

particles not having position in the continuous or discrete, of which they are particles.

But to have position concerns three things, namely that it be assigned where in the continuous the particle is situated, and that one part remain standing in the same continuous with the other, and that it be held with the other by a coupling. And whichever of these three is lacking, it will not have position in its parts. For position says order, and on account of this it is necessary that it be assigned where in the continuous it may be placed. But position in the continuous says permanence, because what is placed is fixed immobile according to being, and therefore it is necessary that it say permanence. But position in the continuous says the coupling of one with...

another, and therefore it is necessary that it say the connection of the coupled things through a common terminus, which is something of both of the coupled things. From these it is clear that the particles of a line indeed have position in the continuous which is a line, and they are having position in relation to each other. For each marked individual in the particles of a line is situated somewhere, either before in the line, or after: and with the parts remaining thus placed, thus you have whence you may take a permanent part, and assign in the continuous each thing which is from the number of particles, where or in which part by the order of parts in place the subject is situated: and this is very plain and easy to understand. And you have whence you may assign to which particle, and through which

common terminus any other particles that have been taken are coupled: which is very plain from the aforesaid. Similarly also the particles of a plane or surface have a certain position according to breadth. For similarly just as in a line it is easily shown where they lie placed in the surface, and which are those which are coupled to each other, and by what coupling as a common terminus. For in a line a point couples: but in a surface a line and a common terminus couples. The particles of solidity or body in the same way and for the same reason have position and permanence and coupling. And the particles of place according to which place is taken mathematically, have such position and permanence and coupling in their parts.

But in number no one can perceive by the intellect position and permanence and coupling in its parts: the cause of which is, that the nature of the parts of number is repugnant to the three things which have been said: and therefore it is not found that the particles of number have position in relation to each other. For first it lacks a site somewhere in the continuous, because unity (whose iteration makes number) is not an indivisible having position in the continuous, but rather is entirely separated from the nature of position: and therefore it cannot be said that unity or a part of number is situated somewhere in the continuous. Nor can it be said that any particles of number have connection or coupling to each other in something (which might be something of both), just as was proved in the chapter on the

discretion of number: but all particles remaining discrete and separated from each other, have an order toward one last thing, by whose addition the species of number is perfected. But neither do those things which are particles of time have position in their parts, because although they have connection and a common terminus in which they are connected and continued, nevertheless they have no permanence in being: but of that which does not remain in being, it cannot be said where it is situated. For that which according to being is not, is situated nowhere. But according to this it seems, that it does not have coupling or connection, because that which according to being is not, can be coupled to nothing. But to this it must be said, that it is in succession that what is coupled exists, and to be in succession is to be according to something. There is also of the past in this that it couples all the way to something as to an end (which it has within itself as something of itself) the succession itself, and similarly the future to which they are coupled is according to the principle of succession: which again the succession of the future has within itself as something of itself, because it is the principle of succession: and thus in the instant (which is the middle, namely the end of the past and the beginning of the future) the past and the future are coupled. And in some way the succession of the past is in the present as in a terminus, and the succession of the future is in the same as in a principle. Thus therefore the parts of time have coupling, and yet they have no permanence nor possession. But in

this they agree with the parts of number, that you say a certain order...

to have in the fact that certain ones are prior and certain ones are posterior both in the past and in the future; but the prior ones in the past are farther from the present, while the prior ones in the future are those which are prior toward the present. And thus something of the parts of time is prior, and something of its parts is posterior. Thus also concerning number it is similar: namely, that in the parts of number there is no position, but rather an order of enumeration: because one is enumerated before two, and two before three, and so on for the other parts of number. And thus it is in number that it is closer to the unity which is iterated in the number. And thus the parts of numbers will have a certain order, but they will not have position in any way, nor even joining or connection, nor a common terminus which is something of both parts (namely, of the prior and the posterior); and therefore the parts remain divided and discrete. This is also shown by the rationale of the name "number." For "number" (numerus) is said as if "true coin" (numus verus), that is, of division: because whatever unities are found in the parts of a number are divided and segregated. Therefore it is clear that they do not perfect any position of this kind.

Similarly also speech has itself in its parts: for this agrees with number in the discretion of parts, but it agrees with time in succession, by which the pronunciation of speech is pronounced, and therefore its parts are discrete and

not permanent. Speech, therefore, is of the number of those things which have been mentioned, namely those which do not have position in their parts. For none of the parts of speech remain, and they can stand even less than the parts of time: because at least in time it is possible to take the "now" or present instant, in which in some way the past is, and in some way the future is. But in speech there is nothing to take in any way: since all the indivisibles of its elements are discrete and connected in nothing, but whatever of them is spoken also passes, and therefore it cannot be taken further so as to be denominated permanent: on account of which there will be no position of the parts of speech; on account of which nothing of its parts remains in reality. And thus it has been proved by inducing what we intended, namely that some [species] of the genus of quantity consist of parts which in them essentially have position with respect to one another, but others of the same genus consist of parts not having position with respect to one another.

But because the quantities about which it was spoken are measures of substance, before we speak about properties, they have in themselves doubts which are determined concerning them. And first concerning the line: for this seems to be an infinite extension according to length, since Euclid says that it is permissible to protract a line to infinity continuously and directly. Furthermore, the course of the point, which makes the mathematical line, does not stop in the continuous. Therefore it seems that it proceeds to

infinity. But against this seems to be the fact that nature and intellect abhor the infinite. Therefore it seems that the line is among those things which the intellect abhors.

But there is no question at all, because the line is not infinite in act, but according to potency, through this alone: that in the continuous insofar as it is continuous, there cannot be assigned a terminus to which its protraction stands. And therefore Euclid says that it is permissible to produce a line to infinity continuously and directly; but such an infinite is something in potency, and neither nature nor the intellect abhors it.

Furthermore, certain ones doubt whether the line is the measure of corporeal substance? For if it is not a measure, since through no other disposition can it be reduced to the subject which is substance, it will seem that it is not an accident; but it is established that it is not a substance; therefore it is nothing, which cannot stand. But if it is a meas-

... if then it seems to be imperfect: because a body is measured by length, width, and depth: but a line is length only. To this, however, it must be said that the line is the first and perfect measure of substance. For it is the line measuring in length, and measuring in width, and measuring in depth. Avicenna says in the *Sufficientia* that a body is measured by three diameters. But diameters are lines. Therefore a body is measured by lines, and the growth of every natural body is according to the extension of three diameters, and the terminus of all things constant by nature

is both the account of magnitude and of augmentation. But that a surface is measured, this is according to the whole extension of the body between the diameters measuring in height, in width, in depth; and that corporeal quantity measures corporeal substance, this is according to the quantitative repletion which according to the intellect is between all surfaces: and thus it must be said of these measures of substance. Nor should it be said, as some wrongly say, that the line is a measure not separated from the surface in act or from corporeal quantity, and therefore joined with others it becomes the measure of a perfect body, although in being it is not separated from the surface and the body, yet in the act of measuring according to nature and intellect it is separated in that way which we have said: and therefore it is a special species of continuous quantity.

Some also doubt what the line has for matter and for form, saying that in the line there are only two parts, namely the lines which are coupled and the common terminus of coupling; therefore either its parts will be for matter or the coupling terminus. But they say that the coupling terminus cannot be for matter to the line, because the coupling terminus is a point: but a line is not out of points, as Aristotle proves. But if the coupled parts will be for matter, a greater abuse follows: for the parts of a line are lines: therefore the line is the matter of the line: and that line again has matter: therefore of that line the matter will be lines, and it will go to infinity, or it will be

the matter of itself, which is absurd: therefore it seems that in no way can they be lines. Furthermore, if a point is said to be the form of a line, it seems to be inconvenient: because those things which are out of matter and form cannot be understood as what they are without the form: but a line can be understood without a point if an infinite length is understood on both sides.

Furthermore, it is asked whether a line can be out of points, and it seems through Aristotle that it cannot, because there is no continuation of those things which do not touch each other, but a point does not touch a point. For it would either touch according to a part or according to the whole. If according to a part, it follows that a point has a part, which is false: because Euclid says that a point is that whose part is not. If, however, it is touched according to the whole, this is again impossible, because contact is of those whose extremes are together, and thus points touching each other would have extremes: but whatever has an extreme, the thing itself is one thing, and its extreme is another: therefore the point is other than its extreme: and thus again it follows that a point according to quantity has parts: namely the extreme and that which has the extreme: therefore a line is not composed of points.

If this, however, is granted, then it is asked why number is composed of indivisibles, and the continuous cannot be composed of indivisibles?

This, however, is easy to solve if those things which were said about the nature of continuous

quantity are recalled to memory. For it must be said for certain, that the line is a form and does not have matter out of which it is made: and therefore the question is null. But if the question were formed thus, what does the line have for substance according to what it is, and what for a formal principle? then the question is valid: and that it be said, that the parts of the line are in-

... them as material substance, is entirely impossible and foolish to say: because, as it was objected, the parts of a line are lines and it is necessary to ask the same about them: hence this is foolish. But it must be said that just as in time the substance of time is the *now*, so in a line mathematically generated and constituted by the intellect, the substance of the line is the point flowing into a continuum: and just as the being of time is a flowing succession, so in a line the formal being of the line is the continuity placed around the coupling points through the intellectual flux of the point. The proof of which is, because that is the formal principle in anything, through which it is placed in the species of its genus: but the line is placed in the species of quantity through the continuum of length: therefore the continuum of length is its form. But a continuum is not made except by coupling to one common terminus: and coupling is not made except by an extended flux; therefore the intellectual flux of the point makes continuity in the line, and the point is its substance, and this is true. And to say that the point is form, and the parts matter, is a delusion: nor is the point except as flowing placed in the defin-

ition of a line according to which a line is length, whose middle does not exit from the extremes, whose extremes are two points.

Furthermore, as to what is asked whether a line is out of points, it must be said that this is impossible, just as it is proved that a line consists of points as integrally composing the line; because out of indivisibles a divisible continuum is not made: but in this way which has been said, it is not impossible, because according to this points are substances placed in the line, around which continuation is placed, just as around a terminus in which coupling is made: and in this way every continuum is made out of an indivisible placed in itself, around which (as a terminus in which coupling is made) the form of the continuum is placed.

As to this, however, which is asked why number is made out of indivisibles and not a line, or another continuum, it must be said that just as was said in what was held before, this is therefore because number is discrete, and indivisibles in number remain discrete and do not make one except by aggregation to a one completing the ordered sum for it, as was said above.

### CHAPTER VIII. *On the doubts which are about what was said of the surface and body.*

In the same way it is asked, whether a surface has a line for matter, and it be a material principle to the body, as Plato and certain others of the philosophers seem to say? For this seems from the mode of speaking: because a surface is length and width without depth: and it is clear that

width gives the species to the surface: but what is before the species is entirely material: length therefore is material to width, and by the same it is concluded that the surface is material to the quantity of the body. Furthermore, it is asked mathematically speaking, whether a surface is produced from a line and a body from a surface? For if one be produced from another, it seems that one is material to the other.

Furthermore, it is asked whether these can be together and according to act in the same thing: because if a line is in it, then length is in it without width and thus since a surface is width, it seems that a surface cannot be in it. And similarly by the same reason if a surface is in it, it seems that depth cannot be in it.

Furthermore, it is asked why depth is not without length, just as length without width, and width without depth?

Some also ask, why there are only three dimensions?

It is also asked in what a body which is substance differs from a body which is quantity?

Furthermore, they ask further, whether quantity is in substance from the part of matter, or from the part of form, or from the part-

of the composite? For it does not seem to supervene from the part of matter: for it is not possible for something to be a substance in potency and a quantified thing in act. But matter is a substance in potency: therefore it will not be quantified in act. Furthermore, to be receptive of something is diminished and privately distant

from the form to be received: but matter is receptive of quantity: therefore in itself it is deprived of all quantity. These and things of this kind are what are asked by certain ones.

But solving these and things of this kind, it must be said that a line for certain is material to a surface, in the way in which a surface which is a formal essence can have a material principle, from which it is generated mathematically: for a surface is made from the motion of a line to the side. And note that a surface according as it is a surface is not made from a line drawn into itself: for from a line drawn into itself, or from the drawing of a line into itself, is made this surface determinate according to species which is a square, and from such a drawing a surface is not made according as it is a surface taken in genus: nor again from the drawing of a finite line in a continuum to the side of a line that has been made is a surface made according as surface is in genus, but rather from the drawing or motion of such a line a finite surface is made, of as much measure in breadth as the line is of measure in length: it remains therefore that a surface according as it is a surface is made from the motion of a line according to the side in a continuous [manner].

But if it is objected, that the common terminus in which the parts of a surface are joined is a line, and that terminus has the act of a form, because to join is the act of a form, it must be said that, just as we said concerning the point, that a surface does not have matter from which it is made, but

the point itself and the line itself are considered in two ways, namely insofar as they are substances posited in a continuum, and thus the line takes from the point, and the surface from the line the substance which is

that which it is. And these can be considered insofar as they are joining termini, and thus there is taken from them the formal being of that quantity which is a line, or of that which is a surface, and thus it has the act of a form which is to join: and it is not incongruous that one and the same thing perfects both of these in a diverse consideration.

But if it is objected that matter does not coincide in one thing with form, it is absurd: because it is not the matter from which the thing is made, but only is this substance according to that which it is, and according as it is that which it is: and these can be in one thing according to the diverse things which are in it, just as there is expressly the example of the "now" of time, which according as it is adjacent to that which is carried is the substance of time, and according as it flows causes the being of time: and through the same mode we say that the surface has itself to the body.

But to this which is asked, whether these dimensions are found simultaneously in one thing, it must be said yes. And when it is inferred that something is long and not broad, it must be said that it is invalid: because the affirmations which are posited in the definitions of these dimensions and the negations are not opposed, because they are not related to the same thing and according

to the same thing. And when it is said that a line is length without breadth, only the breadth of the line is denied, and not of the surface: and therefore the dimensions are simultaneously in the same thing.

But to this which is asked, why beyond three dimensions there is no fourth dimension, it must be said that this is therefore because there are not, nor can there be more than six differences of position, which are up and down, right and left, before and behind, between which there cannot be except three dimensions: and this Aristotle has already proved. But speaking mathematically concerning the proper things of quantity, it must be said that at one right angle there cannot meet or concur except three straight lines protracted in diverse ways,

each of which is directly protracted in a continuous [manner] placed toward diverse things: one, namely, according to length, and one according to breadth, and a third according to height and depth. For a fourth position of a continuous thing into which a diameter measuring a substance might be protracted cannot be understood: and therefore Aristotle says that perfection is in these according to the three motions of the heaven, namely from the South to the North (which is the motion of depth, because the front is for us in the North and the South is behind: and this is the motion from tropic to tropic through the equinoctial); and the motion from right to left, which is the motion of the breadth of the heaven and of the planets; but the planets have

their right in the West and their left in the East of the first heaven. And the motion up and down, which is the motion of the whole sphere according to the whole of the light and celestial virtue to the center: on account of which perfection is in three dimensions. And because it is perfect, as Aristotle says, to which nothing can be added, therefore a fourth dimension cannot be added.

But to this which was asked, why breadth is not without length, just as the inverse, it must be said that this is the same as asking why the second is not without the first, just as the first is without the second? Because the broad and the second is generated from the long and the first: and that from which it is generated remains in the generated thing, and not the inverse: for the broad toward which it is necessary that the side be moved, always makes the broad by motion in the surface, and will never perfect length without breadth: but moved outside the surface, it will be moved to another position, either up outside the surface, or into the depth below the surface, and then because it is moved to another position, it will make another species of quantity: and thus a line not moved to the position of length, but to another position will make a surface.

But to this which is asked, in what a substance-body differs from a quantity-body, it has already been said above: because matter according as it is the subject of generation, is having in potency and not in act three dimensions: but the body of quantity is the trine dimension itself.

But to this which is asked, whether quantity of substance supervenes from the part of matter, or of form, or of the composite, it must be said just as in the things had before, that the potency of receiving is from matter, which potency is divisible: but the act of disposing any of the parts in site and proper dimension lest the parts flow out from the termination of the whole, is from the form terminating the parts of matter ordered to a proper site: but the disposition itself of the parts in site and order, is of the whole and of both, namely of the form as well as of the matter according as they are a whole. And thus the solution of all is clear.

Against this also that time is said to be a quantity, certain ones oppose saying that what does not have parts, does not exist: but the parts of time do not exist: for the past is not, because it has passed and gone away into non-being: but the future is not yet, but is expected: but the present is the indivisible "now", which cannot be a part of a continuum if any part of a continuum is divisible just as the continuum itself: therefore there is no part of time: and thus time itself does not exist: and thus further it is not a continuous quantity.

If perhaps someone says that the present is a part of time, in which time has being in some way... Against this it seems to be, that in other continua that in which the parts of the continuum are joined is indivisible and not a part of the continuum, just as a point in a line: but the present is [that] in which the parts of time, the past

and the future, are joined: therefore the present is indivisible time and not a part of it.

Third. Furthermore a composite from some things as parts is divisible into those things from which it is composed as parts: but time is not divisible into "nows": therefore it is not composed from "nows" as from parts or a part.

Fourth. Furthermore any part of a continuum is other than the part of the same continuum to which it is continued: but a "now", as Aristotle proves, is not continued with a "now": therefore the present "now" is not a part of a continuum.

Fifth. Furthermore a "now" cannot be continuous to a "now", or with a "now": for continuous things are those whose ultimates are one: but a "now", since it is indivisible, has no ultimate: therefore it will not have the same ultimate with another, and thus a "now" cannot be a part of time.

Sixth. Furthermore, even having granted that a "now" is a part of time, and that it is what can be taken of time, it still does not follow that time is in act: because, as Aristotle says, a "now" in time is not in act, but in potency.

If on account of this it is said that time does not exist, and therefore is not a species of continuous quantity, against this it is objected because it is established that motion is a divisible continuum, just as is established from the sixth [book] of the Physics. Therefore either it is a measure, or some measured thing. If it is a measure, it cannot be a measure except either of that which is moved, or of the magnitude over which the

motion is. And it is established that in neither way can it be a measure: for a measure and the measured thing are of the same genus: but that which is moved is a permanent thing. Similarly also magnitude is of permanent things. But motion is of the number of successive things. If now it is said that motion is a certain measured thing, then there will be some measure measuring it: but it is established that [it is] neither that which is moved, nor the magnitude over which the motion is, on account of the causes which were said: therefore since one cannot find a measure of the same genus with motion except time, time will be its succes- -sive measure just as motion [is successive]. From which it follows that time exists, because to be a measure is not a determination diminishing toward being, but constituting in being.

Therefore we say, consenting to these things, that time exists, but it exists according to successive being, just as also motion whose measure it is.

But to that which is objected concerning the parts of time which do not exist, it must be said that a whole according as it is taken as a whole in a genus, does not depend on the being of its parts in act: for nothing has this except a whole permanent in its parts. And a successive whole does not have this, which does not depend on the constitution of its parts except according as they are in order. And time has such parts. For a successive whole is while it is being made, and has being mixed with potency, and therefore it is not

necessary that it have its parts simultaneously in act.

But to this which is asked, whether a "now" is a part of time, it must be said that the present is taken as a divisible time, concerning which Priscian says that the present is [that] of which a part is past, and a part is in the instant, and a part in the future: and these are joined to the past and the future. There is also the present indivisible "now", and this is not joined but joins: and this indeed is something of time, but is not any part of time: and according to this it is easy to solve the objections.

But if someone objects saying that time is the number of motion, and thus a discrete and not a continuous quantity: it is sufficiently answered through the aforementioned. For time is the number of a continuum, first numbered, and afterward numbering: numbered indeed a priori and a posteriori in magnitude and motion: but numbering and certifying the quantity of motion. But a number thus numbered is not a discrete quantity but a continuous one. Thus therefore time is a continuous quantity, and not a discrete one. But many things concerning time which seem necessary to say pertain to the natural Philosopher.

Certain things were recently said in the things had before. Let these therefore suffice for that intention.

It is also doubted concerning these things which were said about place, and concerning those things which were said about quantities

having position in their parts. Indeed concerning place it is doubted, because since place is the surface of the containing body, it seems that it is impossible for the parts of place to be joined to the same terminus to which the parts of the located thing are joined: for according to being there is not one common end of the containing and the content. And if it is said, as certain ones say, that the ultimate surface of the containing body is the terminus to which, as to an intrinsic terminus, the parts of place are joined, and the same surface is the terminus outside to which the parts of the located thing are joined: this seems to be absurd, because those things which are joined in one common terminus, or to one common terminus, are continued in it and are continuous to one another: but place and the located thing taken in this way are not continued in a common terminus: therefore the interior surface of the containing body is not a common terminus to which the parts of place and of the located thing are joined, unless 'terminus' is taken equivocally in place and in other continua.

But in the same way it is doubted concerning those things which are said to have position, and concerning those things which are said not to have position: for number seems to have position, since it has permanence and order of parts.

Furthermore position is only of those things having place: but a line and a surface do not have place, because place is only of bodies: therefore it seems that a line and a surface do not have position in their parts.

Further it is also asked, since in the fifth [book] of the First Philosophy motion is called a quantity, it seems that there are more species of continuous quantity than those assigned above.

Furthermore time has continuity from motion: but motion from the space in which it is, which is a continuous distance between the two termini of motion: therefore it seems that both motion and time are not continuous quantities, except through another and by accident: therefore they ought not to be posited as species of continuous quantity, because a species receives the predication of the genus per se and not according to accident, but these are quantities by accident.

Furthermore just as motion and time are quantities through another and by accident, thus also whiteness is a quantified thing, because as great as the surface is, so great you will say the whiteness to be.

But to these and similar things it must be said, that without doubt, just as was shown above, there are two considerations of place. Indeed one mathematical, according to which place is a quantity having length and breadth and depth according to the dimensions of the located body. There is another physical consideration of place, according to which place is sought on account of motion, as Aristotle says, and if there were no motion, place would not be sought. And concerning place according to the intention of both of these considerations it has been said in the things had before. But that the interior surface of

the locating thing and the exterior of the located thing is said to be the common terminus to which the parts of place and the parts of the located thing are joined, this can be in the physical consideration of place: but this does not suffice in the logical and mathematical consideration: because without doubt whatever things are joined in a common terminus are made one by continuity: but physical place with the physical located thing is not made one through continuation. And

... therefore it is necessary to say, as was said above, namely that there is a common terminus up to which all the particles of place are continued as the center of the place, in which also alone the virtues of the physical place, as the Astronomer says, are gathered through lines produced from the circumference of the place. To which terminus also the particles of the thing located are continued: for which reason Aristotle proved the distance of the place and the thing located to be one in number: which those who posited a vacuum used to deny. However, the lines or diameter of that distance are said to be of the place in one way and of the thing located in another. For they are of the place as of the container, and flowing the power continuously through those diameters to all the particles of the thing located. But they are said to be of the body located as of the thing contained, and receiving power continuously, lest the particles flow away from their sites and powers.

As to this, however, which is asked about those having position and those not having it, it

must be said for certain, that what has position requires three things, namely site, order, and permanence: and because the parts of number do not have site, for the reason that a unit is an indivisible not having position or site, therefore although they have permanence and order, yet they are not said to have position: and because the parts of speech and time and motion do not have site nor permanence, although they have order, they are not said to have position.

As to what is objected that site is of those having place, this is true. But to have place is said in two ways according to which place is quantity. For that is said to have place which is contained by the place according to itself according to all the differences of place, and thus only the located body has place. That is also said to have place, to which is assigned a principle, middle, and last according to some dimensions or distances of place, and thus a line and a surface have site and position in place: and in this way it is understood when it is said that the particles of a line have position in place, and similarly the particles of a surface.

As to that, however, which is asked about motion, it must be said that motion is a quantity by accident, having continuity from the space which is between the two terms of motion: and although it has it thus by accident, yet it has it within its essence, so that it is essential to it, and therefore in truth the being of motion as motion is quantity. As to that which flows in motion, it is another thing which is the "where," or of what

sort, or how much, and in change it is substance. Therefore motion as to that which is in motion (as flowing substance) is not quantity: and therefore with the logician who considers according to its substance to which genus motion should be reduced, it is not quantity, and therefore it is not placed among the species of continuous quantity.

Regarding those which are said to be quanta by accident, either because they are distended by quantity because of the distension of the subject, it must be noted here that according to their being and according to what they are, there is not in them an intrinsic and essential quantity, just as in time and motion: although they differ in this, that in time it is intrinsic, both according to what it is and according to its being: for the *now* which is the substance of time, is not absolute from the distension of flux. But in motion distension is intrinsic according to the being of motion, and not according to what it is. In others, however, it is not so, because those are forms arriving to matter not according to that which is simply substance, but according to that which is matter and subject already actualized as quantum, and therefore they receive their denomination from the quantity of the subject: because such a form is greater in a greater thing and smaller in a smaller thing. But those which arrive to matter according to what is matter, and not according to what is quantum, such as humanity, are not greater in a greater thing and-

... smaller in a smaller thing. But in substantial things this is found only in matter, which is

greater in a greater thing and smaller in a smaller thing: and this is not in the substantial form.

And by this it is also clear that quantity arrives to substance from the part of matter and not from the part of form: rather, substantial form arrives to matter according to the order of nature before quantity, and therefore it distributes the parts of matter according to diameters determined and measured by nature. This therefore is what Aristotle said about those things which are quantities by accident, saying that properly quantities are only these which we said above.

But all other things which are said to be quanta, are said to be quanta and quantities according to accident. A sign of this is, that we do not say other things are quanta, except by looking through the intellect at those things which properly are and are called quantities, denominating other things which are quanta by accident, as something white is said to be "much" and a "much whiteness," because the surface in which the whiteness is, is "much." So also an action is said to be long, because the time measuring it is both long and much, and in this way motion is also said to be much: although it is otherwise with motion than with others, as is clear from what was said above. For not every single one of these is said to be a quantity by itself, which is a quantity according to what it is and according to its essential being, but because they are said to be quanta as being measured in some way by these: as if someone were asked how much an action is, he would assign its quantity by the quantity of

time, saying it is of a year or of a day. And asked how much something white is, he will designate how much the white is by defining the quantity of the surface: for however much the surface was, so much in dimension will he say the white is. Therefore only these themselves which were said in the previous holdings are properly and by themselves called quantities. Of others, however, nothing is called a quantity by itself: but if by chance any of the others is called a quantity, this will be by accident or by accidental denomination.

### CHAPTER XI. *On the property of quantity which is to not have a contrary.*

After the species of quantity have been dispatched, as far as concerns the intention of the logician, according to the mode which we held in the declaration of substance, it follows to declare this predicable which is quantity through the properties following it. Although, however, it follows it from this that it is an accident in a subject, just as it followed substance to not be in a subject, yet we do not assign this property, because it does not belong to quantity through this that it is quantity, but it belongs to it through this that it is an accident, and therefore it cannot be a consequence of quantity according to what it is quantity: but to not be in a subject is proper to substance, because it follows substance itself according to what it is substance.

Furthermore, to be predicated univocally of the things subject to it, follows substance through this that it is substance. But this is not

assigned to quantity nor to the other genera of accidents for two reasons: one of which is common, because from the fact that to be predicated univocally follows substance, insofar as it is the genus of the predicables of its coordination, as some say, and because it follows other genera insofar as they are principles of the predicables of their coordination: and since this is easily known, it was not necessary to study to place this proper consequence in the other genera. The second reason is better, that an accident properly does not have a perfect account (*ratio*), but only substance: therefore since to be predicated univocally is to be predicated in name and account, this does not belong to the genera of accidents which have neither properly nor perfectly an account.

But it belongs to quantity according to what quantity is, that according to the essence of quantity it has no contrary, so that there be in the genus of quantity-

contrary forms, of which each may be a quantity, just as in the genus of quality there are contrary forms, of which each is a quality. And the cause of this is, that matter through this that it is a simple substance, is not susceptible of contrariety, but through this that it is quantified: and unless it be quantified, it does not receive contraries, because contraries are acting and suffering things, which do not agree except with that which is moved: but nothing is moved except a divisible thing, as is proved in the sixth [book] of the Physics: but a divisible thing is quantified in act: therefore it does not receive except what

is quantified in act, and therefore it is necessary that quantity be in matter before every properly taken contrariety. And what is before every contrary, that cannot have a contrary. Therefore quantity according as it is quantity cannot have a contrary.

But this is proved not only by reason, but by induction. For in defined things, that is, in things determined by a species of quantity, this which we have said is manifest. For nothing is contrary to determined things, as to a two-cubit thing, and a three-cubit thing, or a line, or a surface, or a body. For to these and to all things which are similar to any of such in this that they are determined species of quantities, nothing is contrary, as is clear, to which neither can a contrary in quantity be found.

Unless perhaps someone may say that 'many' is contrary to 'few' in the genus of discrete quantity, or may say that 'great' is contrary to 'small' in the genus of continuous quantity. This nevertheless cannot be, because those things which are contrary, have maximally distant forms. But 'many' dictates a multitude, and 'few' similarly dictates a multitude, although not as great: whence if it is asked in what as in a genus 'few' is, it would be said that [it is] in the genus of multitude, for 'few' is a multitude reduced or restricted to not many: since both as well 'much' as 'few' dictate one thing, although not in the same way.

Similarly it is concerning 'great' and 'small', of which each dictates a magnitude: but 'great' dictates a perfect magnitude, but 'small' dictates

an imperfect magnitude. But contraries which are truly contraries, do not dictate concerning one form in a species 'perfect' and 'imperfect': but each of the contraries is absolute from the other, and equally perfect by the act of contrariety. And this is the true reason why 'much' and 'few', and 'great' and 'small' cannot be contraries.

But since we say this, that of these names which were said according to the form signified in the name, none is a quantity: for these names do not designate forms of quantity, but rather forms surrounding quantified things, by which they are toward something [relatives] according to truth, although in the mode of signifying they may not dictate a mode of dependence according to the mode by which those things which are called toward something have a dependence to other things, just as by the name itself 'master' - 'servant', 'father' - 'son', dictate a dependence: for 'much' signifies that which is toward another, although in the name it does not import the mode by which it is toward another. And similarly it is in 'few', and in the same way it is in 'small' and in 'great'.

But that those things which are called great and small are toward something [relatives], is proved by induction: for in all great and small things nothing is found which through itself absolutely is always called great and great toward all things: for what is simply something, that is toward all things, just as what is simply hot is hot toward all things, and thus concerning all other things. But great is not great toward all

things, but compared to something it is called not great. It follows therefore that great is not called great simply and according to an absolute form. But the proof of this is through induction in that a mountain, which seems simply great, is not called something great simply and without comparison:

... it was said: but a mountain is called small compared to a greater one: and a grain of millet which simply seems small, is called great compared to a grain of poppy or of rue. But the millet is called great, not because it is simply great, but because compared to things of its own genus, it is called great: and a mountain is called small, not because it is simply and absolutely small, but because compared to things of its own genus, that is, to other mountains, like Caucasus or Olympus, it is small in respect to those. It is clear therefore that great and small are such things whose relation is to another according to truth, although they do not import the mode of dependency on another in the name: for if great and small were said by themselves and absolutely, never would a certain mountain be called small compared to some other thing, nor would millet compared to another grain be called great, just as white compared to nothing is called black, and hot compared to nothing is called cold.

And similarly it is of much and few: because the same ones according to the quantity of number, that is, men are called many and few. For if in a village there are, for example, twenty men, they are called many men, and if they are in a

city, they are called few: because a city requires many more inhabitants than a village, as Aristotle says in the *Politics*, and therefore those who are many in a village, are few in a city, although perhaps those who are in the city are manifold to those who are in the village: for being triple or quadruple to those who are in the village, they are still few in the city. In the same way also of those who are in a house and in a theater, which is a place for watching games and the deeds of the tirones: and that multitude of men which is many in a house beyond the number which is required in a householder and wife and children and servants for the management of the house, and this same multitude is said to be few in a theater: because for watching in a theater many more from different houses and villages have to convene and because of this if from only three houses they convene to the theater, they are called few, although nevertheless they are many more compared to those who are in one house pertaining to the management of the house. It is clear therefore that much and few, and great and small, are compared to another, and do not say absolute forms of the species of quantity, as do continuous and discrete, and line and surface, and time and place, or as do two-cubit, or three-cubit, or one, two, three, or anything of this sort.

Furthermore two-cubit and three-cubit and each one of those which we have numbered, signify quantities under forms which are essentially quantities. But much and few, and great and small, according to their names do not signify

quantities principally, but signify something said about quantity in relation to something else. Much therefore and few, and great and small, do not signify contrary quantities.

Furthermore this is also shown by deducing to the impossible. For let it be granted by someone that those things which were said are quantities, then it follows that they are not contraries: for that which it does not happen to take by itself and absolutely, but it is always necessary to take in relation to another, how can it be understood that to something thus dependent there is a contrary, since those things which are truly contraries, are maximally distant of those which are under the same genus, and one of them does not depend on the other, and contrariety is another genus of opposition than is the opposition of relatives? For which reason even if it be granted that those which were said are quantities, still it does not follow that quantity has a contrary: because those are not contraries, but opposites according to relation. And it is held by the virtue of this argumentation not what some say, that those things which are to something, do not have a contrary, or that those things which are to something, do not admit a contrary: yet this is also true, that-

whatever things are relatives according to both mode and truth simultaneously, do not admit a contrary, but those things which are relatives according to mode, and are in another genus according to truth, can have a contrary.

Furthermore, the same is proved by a deduction to the impossible, because if it be granted that great and small are contraries, it will happen or follow that the same thing simultaneously in act receives contraries, and it will follow that those same things are contraries to themselves. For it happens that the same thing is simultaneously great and small: because something compared to this indeed is small, but compared to another is great: and if it is a contrary, as was said before, it is always a contrary: because comparison does not give it the form of contrariety, unless it has it. It follows therefore that simply the same thing will be great and small if great and small are contraries.

But it seems perhaps to someone that this argumentation is not valid, but proceeds according to the sophistic mode which is called ignorance of the refutation (ignorantia elenchi), as this is light to this, and is not light to that: therefore it is light and not light, or light and heavy. But this has already been excluded by what we said, that a contrary towards this follows simply to be a contrary, just as hot towards this follows to be simply hot. Moreover, that the aforesaid inconveniences follow is proved from this, that it happens that something compared to this indeed is great, and compared to another is small: and if these are contraries, it follows that the same thing simply is great and small simultaneously, and thus simultaneously contraries are in the same thing. But against this is, that there is nothing that seems to be able to simultaneously admit

contraries at the same time, since contraries are those which mutually expel each other from the same susceptible subject: for although the susceptible substance is of contraries according to its change, it does not however admit contraries in one and the same time and according to the same respect, but in different times: for it is changed from one into another through the successions of times: for no one is simultaneously healthy and sick, nor white and black. And thus it is clear by inducing in all others, that nothing simultaneously in the same time admits contraries.

It also happens, as we said, that the same things are contraries to themselves: for if great is contrary to small, this has already been proved, that it itself is simultaneously great and small: it follows that it itself is contrary to itself. And this follows from this: because if compared to someone it receives the form of a contrary, that thing simply has that form, and as compared to another it has the form of another contrary, it follows that simply also it has that one, because contrary forms in which they are inhere simply, because they are not forms of comparison, as Avicenna says, but are absolute qualities. Moreover, it is impossible for the same thing to be contrary to itself: for great is not contrary to small, and by the same reason much will not be contrary to few or small. Because of which although anyone may say these are not opposites, still what was said will stand, that to quantity nothing is contrary: for an inconvenience follows, and it is shown that

those things which he said were contraries in the genus of quantity are not contraries.

### CHAPTER XII.

*On the doubts which are around the aforesaid.*

Against these, however, some object saying that motion is in the genus of quantity, which is said to be increase or decrease. But motion is from a contrary into a contrary, as Aristotle proves in the fifth book of the *Physics*: it seems therefore that quantity is contrary to quantity.

Furthermore, because quantity is corrupted, it is argued that there is a contrary to quantity: but nothing is corrupted per se except a contrary by a contrary: therefore quantity has a contrary.

But to this it must be said, that quantity -

quantity is not contrary to quantity per se, but concerning quantum the account of the perfect and the account of the imperfect are contraries. Whence also it is held from the book on the *Soul*, that the terms between which there is motion of increase and decrease, are rather relations than quantities, where Aristotle says, that of all things standing by nature there is a term and an account of magnitude and increase. Nor does motion require that it be between contrary terms according to being, but it suffices that they be contraries according to account. Whence great is not contrary to small, except in so far as small is in the account of the imperfect, and great in the account of the perfect.

To the other, however, it must be said that quantity does not corrupt quantity except through contrary active and passive qualities which are in the quantum, and not through the fact that each is a quantum.

But it most seems to some that concerning place, which we said to be a quantity, there is such a contrariety which is of quantity, so that place is contrary to place: for up, as it is a place and a difference of place, the ancient philosophers posit to be contrary to the place which is in the middle, which they call down. The reason why these two places are said to be contraries, is because there is much and maximal distance to the terms of the world: because around the circumference it is everywhere up, and around the center similarly everywhere down: and therefore the ancient philosophers seem also to bring forth the definition of other contraries through this, that contraries are maximally distant, by transferring distance to the definition of other contraries from those things which are distant in place to those which are not in place, but are distant by an essential repugnance and are of the number of those which are under the same genus. And Aristotle indeed poses this objection against his own words, but he does not determine it: but it is necessary for us to investigate whether the objection be true or not, and what is the cause that Aristotle touches upon it, and does not resolve nor determine it.

To this, however, some say that the objection is not valid in multiple ways. And because they

say this is clear to all, therefore they say that Aristotle does not determine the same. Moreover, they say that the first cause why it is not valid, is because it supposes a falsehood in this, that there is much or maximal distance of the circumference to the middle; for this distance is nothing but the semi-diameter: but the maximal distance is according to the whole diameter which is produced from the top of the circumference, as to much of the same, as from the distance of heaven even unto heaven. They say also that the second cause why it is not valid, is because distance in place and distance of essential repugnance in contraries is not taken univocally. Whence those thus transferring err according to equivocation, which truth they say is manifest even to the little skilled: because of which they say that Aristotle passes over this objection as one which is manifestly null.

But this saying proceeds from a great error. For if we were silent about the ancients, Averroes in two places, namely upon the *Physics* and upon the *First Philosophy*, says that for the definition of contraries distance was transferred from those things which are contraries in place. And if perhaps this is not cared for nor attended to, what will be said about the true definition of all contraries, when they are said to be contraries which are maximally distant of those which are under the same genus? We know that distance properly is in place first. If therefore it be transferred to other things, it is established that it is transferred from place to them: for the first is transferred

to the second because of some similarity and not the second to the first: because thus of the translation there would be a translation, which is inconvenient. Furthermore, that the middle and the circumference are maximally distant, Aristotle says in many places, and that everywhere around the circumference is the place up. Therefore around the hemisphere to be up, and around the hemisphere to be sub-

earth, do not distance [themselves] by means of 'up' and 'down', because both are 'up': nor does the whole diameter distinguish 'up' and 'down', but the semidiameter. But we know that in place 'up' and 'down' maximally distance [themselves], just as 'right' and 'left', and just as 'before' and 'behind': and therefore those sayings are very erroneous. For we know that in the book On the Heaven and the World it is proved, that to the middle a motion is contrary to that which is from the middle to the circumference: and there are contrary motions which are to contraries: therefore the place around the middle is contrary to that which is around the circumference, and thus still the saying of the Ancients stands. Furthermore the first contraries are proved to be those which are contraries in place (which are the cause of all others) in the metaphysic [books] and in the physic [books]. It seems therefore that this instance stands and is perfect, and by Aristotle through this that he says nothing against it, it seems to be approved.

Furthermore what in truth was said concerning the property of quantity, stands with immo-

bile truth, and the first instance is very good and subtle: and it is true that distance from contraries in place to the definition of other contraries is transumed, just as the Ancients said: but that the place 'up' is contrary to the place 'down', is not from the nature by which a place is a place, but from this nature by which a place distances from a place: for a place does not distance from a place through this that it is a place, but through this that distance from a principle makes a contrary nature and form in it, just as the nature of dense and heavy and cold and others, which as Avicenna says, if they be cut off, they stand motion and make immobility in those which are there: but 'up' since it is around the principle of motion on account of being near to the principle, in those which [are] up, they induce opposite natures and forms. Therefore it does not follow from the said instance, that quantity according as it is quantity receives a contrary, but around the differences of position of the same quantity which is place, there are ratios and contrary forms, on account of which between such differences of place there is motion. And this indeed Aristotle does not solve; because it was solved before in the similar [case] of great and small, insofar as great and small are ratios of perfect and imperfect around the motion of augment and diminution.

For that 'up' and 'down' do not maximally distance [themselves] according to the properties of place and motion, is an intolerable error and destroying the whole philosophy which is about the straight mobile [thing], which in the third

and fourth [books] of the Heaven and the World is determined.

But to this that they say, that distance is taken equivocally in place and other contraries, it must be said that it is not taken altogether equivocally, but distance is per se in place, but in others which distance [themselves] by essential repugnance there is distance by comparison to that: and thus it is concerning many things, as Aristotle proves. Thus therefore the said instance must be understood.

But still quantity does not seem to receive more and less, or intension and remission, just as neither [does] substance, as is clear by induction and exemplary declaration, as a two-cubit thing: for neither is one more or less a two-cubit thing than another: nor in number is there more or less, for one ternary is not more one ternary than another, nor are three called more or less three than five are called five: nor is whatever one time called more or less time than another, as a day is not called more time or day than a year is called time or year: nor in all these things which were said above, as speech, line, surface, and place, is there altogether anything which according to more and less is said or according to intension and remission:

on account of which quantity cannot receive more and less.

And of this one cause is, that everything which admits more and less, or intension and remission, it is necessary that there be in it intension and remission from one of two causes, namely either

from the action of contraries upon it, one of which is strengthened and the other weakened, and thus those things which are caused by their actions are intended and remitted: or let there be intension and remission from a mixture of contraries, as was said in the doctrine of *Universals*. But recently in the preceding things we said that quantity is in a subject according to nature before substance is susceptible of contraries, or of change according to contraries. Just as therefore the subject is not intended or remitted by the action of contraries, so neither can quantity be intended or remitted. Furthermore, everything which is intended, is not intended except by its like, and everything which is remitted, is not remitted except by its contrary: but quantity has no contrary, it does not even have a like which is contrary to its contrary; for like is said of that which is one in quality.

Some however object against this saying, that in whatever nature there is a maximum, in the same also there is more and less. But in the nature of some quantity there is a maximum: therefore also more and less. For in the fourth book of Euclid, in which the inscription of a figure is treated, it is said or shown that a circle is maximally distant from angular figures, and it is shown that however much a figure becomes polygonal, it will not arrive at the capacity of a circle, even if the angles be multiplied unto infinity: therefore in that quantity there is more and less according to the approach to the capacity of the circle, and thus quantity seems to admit more and less. But this

is more quickly resolved, if the nature of quantity according to which it is quantity be well attended to: for circularity and angularity are not quantities, but qualities said about quantity according to that species of quality which is form, or about something standing in a figure: and therefore that more and less is not quantity but quality, and is according to a greater or lesser departure from angularity.

But some object that in multitude five is more and three is less, and these are in number which is quantity: therefore quantity seems to admit more and less. To which it must be said that here more and less is equivocal to that more and less which is according to intension and remission: for more in multitude is according to the extension of the whole into more things, but more and less in intension and remission is according to approach or departure from a contrary or towards the true imposition of the name.

Moreover, it must be noted that although quantity be subjected to contrariety which makes more and less, yet it cannot be a property of quantity that it be this somewhat and numerically one, as this belongs to first substance: and this is because quantity and universally every accident is not enumerated, nor is it made numerically one through something else which is of its essence, but rather through the fact that it is in substance as in a subject: but substance is numbered through matter, and through the same it is made numerically one and it itself is something of its essence: and because of this to be this somewhat

and to be numerically one remains proper specifically to substance.

Furthermore, it must be understood that although substance be subjected to contrariety by means of quality, and similarly be subjected to motion by means of quantity, nevertheless to admit contraries according to its change cannot be a property of quantity but of substance alone. And the cause of this is, because quantity is subjected to contraries neither as numerically one, nor as one in the ultimate or most specific species: which is clear in curved and straight, to which neither a line numerically one is subjected, nor one in the ultimate species. And similarly it is in even and odd number around number, to which neither a number one in number, nor one in the ultimate species is subjected, but one only in genus or species -

subaltern. But substance, one and the same numerically, is subjected to contraries according to its change.

It is therefore a property of substance and not of quantity: for although this accident which is quantity is closest next to substance, nevertheless it is not substance: but substance by means of it stands under certain other accidents: and these are made quanta by accident, through the fact that in a greater subject they are greater and in a lesser smaller. Moreover, there are also many other things following quantity, such as to be divided or increased unto infinity: in the continuous indeed to be divided, but in number to be increased: for because the continuous is divided

unto infinity, and because the divided is added to the parts received through division, therefore, as Aristotle says, number is increased unto infinity. Which consequences, because they are not of quantity as it is a predicable, but as it is a certain nature, are not placed here by us.

## CHAPTER XIV.

On the property of quantity which is to be called equal or unequal according to it.

But the property most of quantity is, that equal and unequal are said according to it of whatever things are of the same quantity, whether discrete or continuous: whence this is a property which belongs to all, to it alone, and always. This moreover is proved by induction, because each of those which were properly called quantities according to the different species of quantity in the preceding, is called equal and unequal. Similarly also in others which are quantities by accident, which were mentioned above, in each individually it is called equal or unequal according as they are referred to quantity: for an affection which is a passion of the body or soul, and a disposition which is a passion of quality, whether animal or corporal, is not much called equal or unequal: for it is not properly said that two are equal in action, when they are affected around the same thing, unless the affection be referred to time. Similarly also concerning two disposed towards the same, it is not much properly said that they are equally disposed, or unequally. But it is properly said, they are similarly

affected and similarly disposed. Similarly white, equal and unequal according to itself, unless it be referred to the quantity of surface, is not much said, because it is not said except by accident: for according to itself it is properly called like or unlike: because, as Aristotle says in the first book of the *First Philosophy*, one in substance makes the same, one however in quantity makes equal, and one in quality makes like. Because of which it is a property of quantity to be called equal or unequal according to itself.

Since moreover, as was said, one in substance makes the same, just as one in quantity makes equal, it should also be a property of substance to be called the same or different according to it: which does not seem to be true, since the same is also found in an accident as in substance, such as same in genus, and same in species, and same in number, as white and the disruptive of sight. Furthermore, according to this, to be called like or unlike according to quality, seems to be a property of quality: which again does not seem to fit, since men are like in rationality and like in humanity, while Boethius says that species is the essential similarity of individuals. Furthermore, those things are similar in position and habit which now have a difference in position or habit: therefore to be called like or unlike is not according to quality alone, nor is to be called the same or different according to substance alone, and then it seems wonderful if to be called equal or unequal is according to quantity alone. Furthermore, according to virtue, in so far as virtue is the

ultimate of power, it seems to be called equal or unequal: although nevertheless virtue is a quality: for Hercules is said with Achilles or Ajax, and-

Socrates [is said to be] of equal or unequal virtue or honesty with Plato: and thus not according to quantity alone does it seem to be called equal or unequal.

Furthermore since equal or unequal are dictated according to proportion, it seems according to this that to be proportional is proper to quantity, and many modes of proportions seem to be in the genus: therefore it will be more proper to quantity to be called proportional according to it, than equal or unequal: because to be proportional is in more things and more common than to be equal or unequal.

But to these and things of this sort it can be said that 'the same' or 'diverse' cannot be proper to substance on account of the reason which was induced, because according as substance which is 'what', is in other genera, so also 'the same' or 'diverse' is in them.

Similarly it must be said concerning 'similar' in quality: for quality and 'what sort' is dictated in multiple ways, and there is a substantial quality according to which 'what sort' is dictated, and similarly in position and habit, action and passion, as was said: and therefore to be called similar or dissimilar according to it is not proper to quality according as quality is a determined genus. But thus it is not in the genus of quantity to be called equal or unequal according to it: for this agrees only with quantity properly, and it

does not much agree with other genera: because it does not agree with them per se, but according as they are referred to quantity.

But to this that is objected concerning the quantity of virtue, it must be said that quantity is said equivocally concerning the quantity of dimension and the quantity of virtue, because each is measured through the division of parts; but the quantity of dimension is measured through the dimension of parts which it has in itself, just as we say a space has a three-cubit or three-cubit-long length, which is a space [measured] through its equal and intrinsic parts measuring and returning to a certain number: but the quantity of virtue is measured to the parts which it has outside itself in the object of virtue, just as if someone should ask, how great is Hercules, or of how much virtue is he, we say that he is able [to act] upon ten, and upon as many Achilles is able who has equal virtue with Hercules. Thus we also say concerning moral virtue, that Socrates is of so much virtue that he excludes even the sense or motion of all dishonesty. And we say that Cato according to the same mode is equal in virtue to Socrates. But this is dictated through a certain similitude, for it is not properly equal but similar, and the similitude of virtue is attended also in extension or intension, or perfection, or radication, or purity, or in some of such things.

But to that which is objected concerning proportional, it must be said that this cannot be proper, because not every quantity is proportional to whatever quantity, but every quantity

with a quantity (to which it is comparable) is equal or unequal; and what they say that equal or unequal is properly numbered, and that equal is prior in number, is altogether false: because Euclid says that equal things are those which when supposed to each other mutually do not exceed nor are they exceeded; and this agrees equally to a continuous [thing] as to a discrete [thing].

To us about to treat concerning the coordination of predicables which are in the genus 'toward something' [relation], first occurs the dissension of all the ancients concerning the predicament 'toward something'. For Zeno and certain others used to say this predicament is not a predicament, but that it is according to reason immixed with other predicaments from their comparison mutually to each other. And since the first genera are voices, signifying the genera of first things: but since this genus does not signify as a being separated from others, but as immixed with others, it seems that its significate is not a being which is of the first parts of being. Furthermore to the same he induced, that 'toward something' consists in comparison: but comparison is in compared matter: therefore comparison according to the intellect posits the compared things and the thing in which the comparison is according to the intellect before itself: but what according to the intellect posits something before itself besides a subject, is not a first genus: it seems therefore that 'toward something' is not a principle of a genus of any accident: for that in which the comparison is made and

the ratio of the comparison it posits before itself which is not the subject, but something concerning the intellect of the accident in which the comparison is made. But this he used to confirm through this mode: for if A is compared TO B, it is necessary that either according to itself it be compared to it, or mediating something which is the ratio of the comparison. Not by itself, because thus whatever [thing] will be compared to something, and nothing will be absolute: therefore let A be compared TO B, mediating C; it will be necessary therefore that C be the ratio of the comparison of A TO B, if therefore C is not, the comparison will not be: therefore C is understood to be in A, and B before the comparison: but nothing of such things before which according to the intellect there is an accident, is a first genus of an accident: therefore 'toward something' is not a genus of an accident.

Furthermore no one of the genera of accident is an accident of another: but comparison or 'toward something' happens to all genera of accident, as is clear per se: therefore 'toward something' is not the most general among the genera of accident.

Furthermore 'toward something' co-happens to all from this that in them there are genera and species, and whole and part; it seems therefore that 'toward something' is a certain co-accident to all others from the coordination itself of genera and species: therefore it does not per se constitute a genus, as it seems.

Furthermore because genus and species are in all things, we do not say that generality is a genus, and similarly we do not say that specialty constitutes a genus, or even difference, or property, or accident: for all these encircle the genera by reason of the mode of predicating which is found in them: from a similar [reason] therefore since 'toward something' is a common accident which happens to all from the comparison of predicables mutually to each other, it ought not to be a genus, but a certain accident of other genera.

Furthermore certain ones of the posteriors objected more strongly, as Avicenna and Alfarabi, saying that no form which is a being, is in a thing which is not absolute according to the being which it has in it, as is clear by inducing concerning hot, cold, white, and black, and all others: but the comparison which is made of things mutually to each other according to the forms which are in things, is made by an act of reason, which says that [those] in which there is not one quality are dissimilar, and [those] in which there is one are similar: the form of comparison therefore which is in these things which are 'toward something', is not a thing but a ratio [reason], as it seems, because there is nothing outside the soul of the one comparing one to another: but the most general [genera] signify the first genera of things: but 'toward something' is not an established being with nature outside, but a being of reason: therefore 'toward something' cannot be the most general concerning such things which are things in the soul, because thus

the most general [genera] would not signify the first genera of things simply.

Moved by these and similar reasons were the Ancients and almost all except Plato and Aristotle who said that 'toward something' is not a genus which is a first part of an accident or one of the first, but they said that it is immixed to all others from the habitudes of other genera mutually through the act of reason comparing one to another, such that they say 'toward something' is not one of the first genera, as Averroes touches upon the fifth [book] of the First Philosophy of Aristotle.

But we consenting to Plato and Aristotle, say that 'toward something' is a most general [genus], and is one of the first genera of accident: from the fact that as much Porphyry as also Aristotle and Avicenna say, that an accident is predicated in two modes of that of which it is an accident, and in two modes it is caused by a subject. For a certain [accident] is an absolute form and is not an accident through something, except because in a subject it follows the perfect being of the subject in its substantials: and therefore it is an accident, because what follows the perfect being cannot be of the substance of a thing, and thus quantity is an accident, and quality and such things. But a certain [accident] is an accident, not because it follows the perfect being of a thing, nor because it follows a thing except for the sake of its substantials, but from something which is having itself extrinsically to the substantials of a thing, just as this to this that something is of that

which has itself as first, another as second, or one as whole, and another as part, or as agreeing or differing from another, it follows from an extrinsic [thing] that one is comparable to something according to the thing itself: which comparison is reduced to act when they are compared in act through reason, and from such an accident which thus happens to things properly 'toward something' is caused: and on account of this that such an accident is found in many things, on account of this it is thought to be immixed with all others, although nevertheless it is a mode of accident distinct from other modes of accidents: and therefore it signifies a proper accident, which in its genus is first. Nor let it move anyone that it is caused by all others, and therefore it will strongly seem not to be of one genus but of all: for it is not caused by all as they are divided and discrete, but it is caused by them as one, and by one common reason it is in them: and this comparability or reason of comparison, and that which thus follows a thing, is 'toward something' and not absolute.

To this which Zeno objects, it must be said that 'toward something' does not leave behind before itself something which is of its intellect, just as a genus or as a more common [thing] is of the intellect of a species or a less common [thing] which is left behind before itself: but it leaves behind before itself that which is the cause of such an accident, and this is the reason of comparison, or that in which the comparison is made. But this does not impede that it be a special genus

of accident, because whatever genus of accident leaves behind before itself in a subject the cause through which it is effected in the subject.

To this that is said that no genus of accident is an accident of another, it must be said that if it be said, that one genus of accident does not happen to another as to a subject, it must be said that this is true: but

that one genus is not made in a subject by means of another, this is false, as is clear in action, and passion, and where, and when, and in many others. And thus similarly nothing prevents relative from being in a subject by means of something else: for this does not impede the understanding of the most general: for the most general as most general makes such a mode of predicating per se or per accidens which can be reduced to no other mode, but is itself according to itself a mode of predicating something special: and thus it is clear that the most general things signify the first principles of things in a special and distinct mode of predicables, and they signify the first principles of things either per se or per accidens: because predicables as predicates are distinct according to the first modes of predicables.

To that which is objected, however, that relative co-accents to all genera, as to be a genus and to be a species is in all, it must be said that it is not true: because genus and species happen according to their accounts from a special mode of predicating universally according to the thing itself, which cannot be reduced to other modes.

But relative posits a universal mode of its coordination, which can be reduced to no other mode, and therefore for relative the mode of predicating is not a co-accident, but is a mode of predicating per se distinct of a certain genus of accident.

To that, moreover, which they object later, it seems it should be said that by comparison it is to be considered in two ways, namely according to aptitude and according to act. According to aptitude indeed it is in things, and already long ago above in the science of *Universals* it was determined, that aptitude alone suffices for the mode of predicating, constituting, and causing. According to act, however, the comparison is in the reason or soul of the one comparing: and that act does not make it so that it is not according to aptitude in the things compared: and therefore according to aptitude indeed it is in things, but according to perfection it is in reason. And this deceives many in this predicament: and it is what Aristotle says, that some things are in as an accident, some however as being in some way towards another. And it is well to be granted that this accident has less of being than another which is absolute: but from this it does not follow that it has nothing, and according to what it has of accidental being it does not fail to posit a mode of predicables distinct and separate from other predicables of accident.

### CHAPTER II.

*What this genus has of being, and what in it is the most general, and what subaltern, and what most specific, and what individual.*

Consequently it must be determined what this genus signifies concerning being, and what is most general, and what most specific, and what subaltern, and what individual. For these pertain to every coordination of the most general things: for every most general signifies some part of being, and in every coordination of predicables something is as the most general, and something as subaltern, and something as most specific, and something as individual. For otherwise the mode of predicating of predicables would not be complete unless it were distinct from others and did not stand at the lowest nor stand at the highest, unless it descended in an orderly way through means which are subaltern and most specific.

Moreover, it is manifest from the previously induced things, that relative has less of being than quantity or quality, because those signify being in act perfectly resting in a subject which is substance, and such being does not signify relative, but rather that which according to aptitude and cause is in the subject: but its perfection is in comparing reason, therefore not -

it does not rest in the subject, but has a comparison to that which is outside the subject, and therefore it signifies less of being than another genus, and especially when it is not founded in substance except through a substantial act, as it is clear that nothing is founded in substance, and has no cause except a substantial act which

is active generation: and since the act is in the agent, through the fact that it is from the agent it happens for this reason that such a relative in the subject reduces either nothing or very little of comparison: for from the fact that he generated, it follows that he is a father, and from the fact that another is begotten, it follows that he is a son, so however that neither the generator nor the begotten received any form, or suffered anything according to any accident: because through a substantial act and the effect of the act such a comparison is made, and because either nothing in simples such as matter, or very little indeed in those which are material, does it induce of comparison, it is clear that it has less of being than the significates of other genera of accident: although also sometimes it is founded upon an accidental form presupposed in the subject, when it is said that these are like, because each is white; and then indeed it is a relation of the composite of subject and accident, but it of itself does not bring a greater comparison except of that comparability which is according to aptitude, as we said a little before: and therefore of itself it signifies very little of being, which nevertheless imports a special mode of predication: because of which it is necessary that it be distinct from other predicaments: for that mode is found in many things which are orderable according to that mode into genera and species and individuals.

If however someone should object, saying that according to those things which were said, accident is predicated priorly and posteriorly of

relative and of other genera of accidents, which seems inconvenient, since all genera of accidents are equally referred to one division of accident, it must be said that according to this common account of accident (that an accident is what as a consequence of substantial being falls to substance as to a subject), thus all genera of accidents equally participate in the predication of accident: but according to this, that the accidents of the first genera signify certain species or primary parts of being which are not of the being of substance, thus the nine genera, which are called genera of accidents, do not participate equally in the mode of accident: for thus neither do they participate equally in the predication of being, because any are beings, and some are signifying not being indeed principally but how a being has itself towards another: and those are less beings than those which signify being resting in something absolute, and according to this mode they participate in the predication of being. But they participate in the predication of accident conversely: for just as accident per se has less of the account of accident than accident per accidens, so that which is an accident from comparability has more of accident than that which happens only from this, that it is in another, not as a certain part of its being: and accident is predicated of relative priorly and by more of accidentality than of other genera of accident.

But the most general in the coordination of this predicable is relative (*ad aliquid*), or relative, or less properly, as some say, relation: but

it should be noted that by no name is the most general so expressly signified as by this which is *ad aliquid*, which is a preposition with a case-ending: for this imports two things which are in the relative, namely diversity through the transition which the preposition notes, and the termination of the comparison which the accusative case notes, when it is said *ad aliquid*.

And if it is objected that in this name which is *ad aliquid* there is not imported that which is compared to something, nor even the account of comparison, but only the diversity of the things compared, and that to which the comparison is referred, it must be said that that which can more competently be imported in a comparative name of itself and its formal account is -

to another; and that which is compared to another, is not except materially in it. But names are imposed from that which is formally signified in them, and not from that which is in them as material: but the reason of comparison, as was said before, does not respect the comparison except as a cause and not as a form, and therefore also it ought not to be signified in the name, because it is outside that form from which the name is imposed; and therefore this genus is more aptly named by the name 'toward something', than by any other name by which it could be named.

And it is to be known that, as Porphyry and Alexander say, Plato invented this name, although then it used to be called 'relation'. But it ought not to be named 'relation', because just as other genera signified in the abstract are

not predicables, so neither is this: for abstract [words] signify simple essences which according to this that they are thus signified, are not forms significative of the whole being and notions of any whole being, signifying the essential or accidental whole of it. But by the Ancients it was called 'relative', which, as was said, Plato amended considering that 'relative' is dictated as if reductive of an antecedent, as is said in grammatical [works], and this is not considered in comparison except materially: but that to which it refers, is like an end which is formal in that which terminates and finishes the comparison: on account of which it is better named 'toward something' than 'relative'.

The coordination therefore of these predicables has 'toward something' for the most general [genus]. But to be called 'toward something' according to that which they are, and to be called 'toward something' in whatever way to another, are the first [things] dividing the most general [genus], and with it constituting the subalternate genera and species: but for the most special it has 'toward something', of which this itself which they are they are 'toward something': but for individuals it has this thus being 'toward something' and that thus, as father, son, lord, servant.

But it is to be attended very much, that

certain things signify comparison which are 'toward something' as a concept only, and these are called absolute, just as this itself which I say 'relation', or 'comparison', and therefore those are not referred to something, but dictate their

significations as absolute. Others signify relation as exercised and compared according to act, just as these 'toward something' or 'relative'. Certain ones also signify it as in potency to be exercised, just as this itself 'relative' which signifies an active potency for referring. And from this again it is, that most aptly this genus is called 'toward something' and less aptly 'relative' . But when it is called 'relation', that name has a minimum of congruency.

From this again further the reason of order is clear, that after the predicament of quantity among the genera of accidents this predicament is to be ordered, because namely quantity is closest to substance, since substance is to be ordered [first]. On account of which also the definitions of quantity although they concern matter, nevertheless they do not concern this or that sensible [matter], and they are on account of this of necessity of mathematical science. But the definitions and passions of other accidents concern sensible matter and have more of accidentality, and approach less to substance. And since among those 'toward something' has more of accidentality, as was said, deservedly it is preposed among those. And this I say saving the peace of Boethius, who assigns another cause of this ordination: for he says that because in the order of discrete quantity there is first and second, which dictate relation and comparison, and because as much in the predicament of substance as in the predicament of quantity there result genus and species which are relatives, therefore immediately after those

two relation is posited, although quality according to the nature of quality is before relation. Which reason is not sufficient, as can easily be clear to whoever well considers.

## CHAPTER III.

*Concerning the definition dictating what 'toward something' is according to Plato.*

But toward something according to the definition which Plato gave is defined thus: 'Toward something' such things are called whatever this itself which they are are called of others, or in whatever other way to another[1]. And that Plato says, that 'toward something' such things are called and does not say these or those, notes that not substance alone is referred to another: because it is not in substance, as it is substance, the cause of relation, but substance with the form of accident which is the cause of relation, is referred to another: and therefore he says 'such things' and does not say 'these' or 'those'. But that he says are called, notes that it is defined, as a predicable, which through 'to be called', and not through 'to be' has to be defined: and therefore he says are called, and does not say 'are'. But that he adds whatever, notes that always in the diversity and plurality of those which mutually to convertence are called, relation consists. But that he adds this itself which they are, notes those which according to being are related to others. But according to being they are related to others, which have no other being than of relation or 'toward

something', just as father in no genus of accident has other being except of paternity, whose whole being is to another, and it is not founded upon any other being of an accident, just as equal or similar, which is founded either upon one quantity which is in many, and just as the same which presupposes one substance in which it is founded. But father, son, lord, and servant, and whatever from themselves do not dictate except the accident of comparison to another, those according to this that they are are called of others in the genitive [case]. Because the genitive according to its name dictates that which is of another just as an end and termination in which generation is finished, and thus it is 'toward something' of others, as is clear from what was held before. But that he adds are called, he says on account of the mode of predicating which is special among the genera of accidents.

But because not all things compared to another are in this mode of others, but also they are called according to other cases 'toward something' as according to the dative, accusative and ablative, which are not so truly compared to another according to their whole being, and nevertheless in some mode are 'toward something', just as 'to those', or 'to that', or 'from that': therefore it was necessary through a disjunctive conjunction that the definition be conjoined and congregated, through which indeed the conjunction of speech would be noted, but the disjunction of sense: and thus the division of those which are 'toward something' would be noted, which

are of two modes. And therefore he subjoins or in whatever other way to another they are called, that is, according to the habitude of other cases: and which are not so truly relative, that according to their whole being they are to another, but they are founded in a certain being which is not to another, just as we said. But this definition is declared by the position of examples and the induction of those which are 'toward something'. For of those whatever this itself which they are, are of others or of another according to the genitive case. An example is, as greater which by reason of the comparison which it dictates, according to that which it is, is of another: for greater is of a lesser or greater than a lesser, and lesser of a greater or lesser than a greater: because the Greeks do not have the ablative, but they use the genitive as much for the genitive as for the ablative. Greater therefore according to that which it is, is of another or is called greater than something. The second example is as double, this is according to that which it is called of another: for it is called double of something just as of a half, or of a sub-double. But similarly according to [their] whole being they are of others, whatever are of this sort or similar to these.

But indeed according to the second part of the definition also these are 'toward something', al-

although not so truly and so perfectly as the others which were mentioned, and they are called examples of those, such as habit, affection, discipline, position: for all these which were mentioned as examples, that very thing which

they are, are said according to the comparison of others, and they are not said otherwise towards another through that very thing which they are, because their names are imposed from such a comparison, but they are said according to other cases: for habit is said according to the genitive case: for it is said to be the habit of someone, in so far as it is said to be the habit of the one having, and the one having a habit, having is said according to the accusative; and discipline is the discipline of someone, but converting according to the ablative case, for discipline is said to be the discipline of the disciplined, but the disciplined is not said to be the disciplined of discipline, but the disciplined is said to be disciplined by discipline through the ablative by which the relation of the formal cause is noted. Similarly position is the position of someone: for it is the position of ordered parts, and the positioned parts are positioned by position, because ordered parts are ordered in a whole by position: and again let there be conversion by the ablative, but also other relatives behave similarly.

Therefore let the definition be concluded through the declared examples. Therefore relatives are whatever things are that very thing which they are and which is imported in their name, are said of others according to the genitive case, or in whatever way otherwise according to another case have themselves towards another, as a great mountain, not according to the genitive or dative, but according to the accusative compared to another mountain: for great is said

towards another according to the accusative, and like is said like towards something according to the dative case, for it is said like is like to the like, and equal to the equal equal, and same to the same same, and conversely: and all such things whatever are referred to each other according to some case, are called relatives according to the similarity of these.

But it must be noted in which the dative says one and the same relation with the genitive, that in those in the genitive and dative there is one mode in relation or of those which are relatives, as father to the son or of the son, and son to the father or of the father. In these however there could be deception, because it was said that reclining and standing and sitting and the like, are certain positions and an ordering of parts in a whole, and it was said that position is a relative, but taken from these which are to lie and to stand and to recline, which say an accident inclined towards a subject verbally as a signified act, they are not positions according to their name, but are said denominatively and verbally from these which are true positions, such as sitting, standing, and reclining. For he sits in whom there is sitting, as an act, and he reclines in whom there is reclining as an act: but he in whom it is through that which is in him, receives the denomination either nominally or verbally or participially, as he sits, he stands, he reclines, sitting, standing, reclining: and these are not called relatives, because the one sitting or he who sits, compared to none, sits, and

similarly it is of others which are said in the same way.

This therefore is the definition of Plato of those things which are towards another, which however Aristotle attacked according to something, as will be clear in the following: because according to it certain substances seem to be relatives, as will be shown in the following of this treatise.

### CHAPTER IV — *On the property of that which is relative, which is to admit contrariety.*

Thus therefore the definition of Plato of those things which are relative having been declared, this predicament must be manifested through its own things following it, whether they be common, not properly proper, or even properly proper. We say therefore, that contrariety is in relation, but it is not in those things which according to that which they are whole and perfect, are of others, which alone are truly and according to their whole being relatives: but it is according to others -

which according to something of themselves are relatives, and according to something are of another predicament: and through that which they are of another predicament, there is in them the being susceptible of contrariety. To make this clear in examples, virtue is contrary to vice, although both of them, namely both virtue and vice, are in some way relative, for virtue is the virtue of the virtuous and the virtuous is virtuous by virtue: for thus discipline is contrary to ignorance, and science to lack of knowledge, although

both discipline and science are relatives, because discipline is the discipline of the disciplined, and science is the science of the scible, and the disciplined is disciplined by discipline, and the scible is scible by science.

But the reason for this is what we said, that neither virtue nor discipline nor science according to their whole being are of another or relative: for virtue is a habit consisting in the mind according to its being, and thus it is in the predicament of quality, and in this way it admits contrariety. But it adds above the account of habit a relative comparison to another as to an act, in which virtue is perfected according to the best, and thus it is the virtue of something, as compared to the act through the habit of virtue, and thus it is properly the virtue of the virtuous or the studious, just as the axe is the axe or instrument of the one cutting or building. And similarly just as discipline can be considered according as it is a cognitive habit: and this is its being through which it is placed in the predicament of quality, and it has ignorance as its contrary, and not that which is of pure privation, but that which is of a contrary disposition according to principles, that is, of one who is disposed and informed by the contraries of the principles, and therefore is ignorant: and then discipline will be the habit of the disciplinable, such as of mathematicians, and ignorance the contrary disposition to the same. But science is the habit of a conclusion, and similarly considered as a habit of the intellect it is in

the predicament of quality, and thus it admits a contrary and necessarily is a necessary

disposition concerning the same. But each of these adds above being such a habit of the intellect the being of an intellectual virtue, by which one is made powerful for the act of the intellect: and thus it is relative, because thus science is the power of the one knowing towards the scible, and thus discipline is the virtue of the disciplined towards the perceptible discipline, and as to this being it does not have a contrary.

From this it is clear that it is not similar concerning the white that some speak of and concerning whiteness, that it can be said thus, that whiteness is the whiteness of the white, and the white is white by whiteness, and thus it could be said relatively: for from this that something is of something for it to be relative, it is necessary that it be of it as of a perfect [thing] or instrument towards another, and that it be from it as an instrument or organ. But thus whiteness is not of the white, but is of the white as formative, nor does it perfect towards an act which is of that which is white, but it performs in it the proper act of whiteness, which in no way is the act of that which is white: for the act of whiteness is to disrupt the sight, and that act is not of the white, that is, of that which is white. But thus it is not concerning virtue, and discipline, and science, which as virtues are elective or intellectual, are certain organs or instruments for the act of reason or of the elective will, and therefore above being habits they add the account of rela-

tion. And thus it is concerning affection towards the affectible: because affection speaks of that which is instrumentally expedient to the will for this, that it be inclined towards the willed and adhere to it, therefore affection is the affection of the affected towards the affectible, and it has the mode of that which is something, although not according to its whole being is it relative.

Thus therefore relatives existing as relatives according to mode, not according to the truth of their being, admit contrariety: but this property neither convenes to the [relative] alone nor to every [relative]. To the [relative] alone indeed it does not convene, because it convenes to quantity; but it does not convene to every [relative], because it does not convene to relatives which according to being and according to truth and not according to mode alone are relatives: for to the double or the duplicate, which -

according to truth is relative, and similarly to the triple and the sub-double and such like nothing is contrary, nor to any of such things which according to the whole of that which they are, are relative, such as father to son, brother to sister, lord to servant, and other things similar to these. Thus therefore neither to every nor to the relative alone does this property convene, but it convenes to certain things which according to mode alone are relative.

### CHAPTER V. ### *On the property of relatives which is to admit more and less.*

But another property similar to this, convening neither to the relative alone nor to every

relative, is that relatives seem to admit both more and less, which is proved by induction and by the positioning of examples. For like is said both more and less: for one is more and less like another to whom he is like and towards whom he is said [to be like]. But similarly also unequal is said more and less. For although equal is in one mode only according as it is suppositum to another and neither exceeds nor is exceeded, on account of which equal according to truth does not admit more and less, nevertheless unequal is more or less according as it recedes more or less from equality. But like and unlike each receive, namely more and less, just as white and black, just and unjust. But not thus straight and curved, if straight be taken truly and properly, as Plato defines, whose middle does not go out from the extremes: for this signifies as in a term just as also equal: but their contraries admit more and less according to the recession from that which signifies its thing as in a term. Therefore like and unequal, as was said, admit more and less, since nevertheless each be relative according to mode and not according to the whole being. For like posits one quality subject to likeness, which is not relative, and equal posits one quantity subject to equality, which is not relative: and by the opposite unlike and unequal suppose diverse qualities and quantities, since they are relatives according to mode. For like is said like to someone and towards another, but equal is equal to someone towards something.

But this property does not convene to all relatives. For relatives do not admit more and less, unless those alone which according to mode and not according to their whole being are relatives. Whence not all relatives according to one likeness admit more and less, as double, sub-double: nor any of such relatives which according to truth and mode together are the rest.

But this property is caused from the preceding, because to admit less is to have more of the contrary, but to admit more is to have less of the contrary. But many things happen to relatives which according to mode alone are relatives, which do not happen to those which according to truth and mode are relatives, on account of this that there is in them also something which is of another predicament, which is not in others which according to the whole of that which they are, are relatives, just as these two following things about which it has already been treated. And similarly that certain of them are intrinsic relatives, and certain extrinsic. But I call intrinsic relatives those which close within themselves through their significates those things to which they are referred, which are called their correlatives, such as when it is said, these are like, that is, this one to that one, and that one to this one, or these are equal: which is not to be found in those which truly and according to being and according to mode are relatives, such as father and son, lord and servant, cause and caused, principle and principiated, and other things of this sort: for it is not said, these are fathers, so that this one is of

that one and that one of this one, and these are doubles, so that this is to that and that to this. However, some object against those things which

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were said concerning contrariety, saying that Aristotle says that motion according to accident is in all predicaments: therefore motion according to accident is also in the relative: and where there is motion, there is in some way a contrary: therefore those which are relatives according to truth also in some way admit a contrary. To which it must be said that although motion according to accident be in all, nevertheless it is not in one way in all. Therefore in the relative there is motion, as Aristotle says, because it is induced through motion, as a father through generation and things of this sort, just as through motion towards a form conforming to another.

But it must be noted that these two properties, to admit a contrary and to admit more and less, for the most part accompany each other, because to admit more and less, as was said, is caused from this, which is to have more or less of the contrary. Whence it happens that although relative opposition be not an opposition of contrariety, nor conversely, because contraries can never be at once relatively opposite (which is clear from this, because contraries are by nature made concerning the same thing, but relatively opposite things concerning diverse things: and contraries cannot be in the same thing at once in act, but relatively opposite things can, provided that the respect be made to diverse things: for the same

person is father and son with respect to diverse persons) nevertheless relatively opposite things according to mode and not according to being and truth, according to that which they are not relatives, can have contraries and admit more and less, because they do not have one simple opposition, just as contraries: but they are two, and by reason of one they admit contraries and more and less, but by reason of the other they do not.

Moreover it is to be noted that unequal receives more and less, since nevertheless the quantity upon which the relative is founded does not admit more and less: and this is for this reason, because in this way in which the relative is founded upon quantity, there is more and less in quantity, just as in quantity which is number, there is greater and lesser, so more unequal is that which in more parts of the measure of quantity recedes from the equal, and therefore unequal is called in this way more and less unequal.

But if anyone should thus argue: where there is more and less, motion is possible; but in the relative there is no motion, therefore also in the relative there is no more and less. Now however enough has been answered to this: because in those which are truly relatives, there is no motion, except as in those which are induced through motion, and not thus that the terms of the motion be relatives. But in those which are relatives according to mode alone, there can be motion, not according as they are relatives, but according as they are in the genus of quality, as

was said: in such relatives however sometimes it receives more and less according to the genus, and not according to the species, because unequal is more and less: but double and triple are not said according to more and less, and this is for this reason because certain is the disposition in the species which is not in the genus: for double is not said more and less, because a certain measure is posited in the species which was not posited in the genus of inequality: for there is a certain measure of the double or sub-triple which cannot be more and less, but an uncertain [measure] is imported through the unequal, to which [addition] can be added and [subtraction] diminished. This is therefore what is to be noted concerning these two properties.

### CHAPTER VI. ### *On the property of relatives which is to be said in reciprocity.*

But the properly proper [attribute] of relatives which convenes to every, to only, and always to that which is relative, whether it be relative according to mode alone, or according to mode and truth, is to be said in reciprocity. But reciprocity and convertibility and conversion differ in this, that -

convertence is called of those which mutually to each other are referred through habitude, as just as the first is referred to the second, so the second is referred to the first under the same case or a diverse [one], just as in what was held before it was said. But convertibility is of a proper [attribute] and of a species whose proper [attribute] it is, that just as one follows to another, so

the other will follow to the first, so that each is antecedent and consequent to the other. But conversion is in the transposition of subject into predicate, and conversely, under the same quality, and quantity, or diverse [ones].

But to be called to convertence convenes to those which are 'toward something' according to truth or according to mode only: which convenes to all alone and always, even if they not equally be 'toward something', but one through itself be referred to something, and another not through itself but mediating the first be referred to the first: just as science to the scible through itself is referred, but the scible to science is not referred except mediating science. But this will be declared below.

But it is declared through examples and induction, that 'toward something' they are called to convertence, and first in those which according to truth are 'toward something': for the servant of a lord is called servant, and the lord of a servant lord, and the double of a half double, and conversely the half of a double half: and this is according to the genitive case which chiefly is preposited to relatives. Certain also are called to convertence according to the ablative, as a greater by a lesser greater, and a lesser by a greater lesser.

But similarly it is in all others which in whatever mode are 'toward something': for all are called to convertence, although by a diverse case they be referred in relation mutually to each other according to the figure of locution,

as we said, as discipline is called the discipline of the disciplined according to the genitive: but conversely it is necessary to mutate the case, so that it be called the disciplined disciplined by discipline according to the ablative: for discipline is referred to the disciplined in the habitude of the genitive, but the disciplined to discipline in the habitude of the ablati-

ve. And similarly sense is called the sense of the sensed: but conversely according to the ablative the sensed is called sensed by sense, and science the science of the scible, because the scible does not depend through itself to science except inasmuch as of itself there is science, therefore it is not referred to science except mediating science, so that the scible be called scible through science. And similarly the sensed holds itself to sense, and in other such things it is similar. For in relatives it is thus, that sometimes one depends to another simply, and the other does not according to itself depend to that, except according as it stands under the form of the first: for that relation is not equally in each of the extremes, but in one it is according to being, and in the other it is not except according to reason according to which the first is referred to it, as science is called the science of the scible, and the scible is not called the scible of science, but is called the scible scible by science: which on account of diverse habitude it is necessary to mutate the genitive into the ablative. And similarly the sense of the sensible is called sense, but conversely the sensible is called sensible by sense.

But that never under a direct [case] to a direct [case] there be convertence, the reason is, because a direct [case] to a direct [case] does not posit a transit or diversity which relatives always exact, but a direct [case] to an oblique [case] notes diversity. For if it were called thus, science is the scible, false would be the locution, and conversely. Also of the mutation of cases the cause is the multitude of habitudes in diverse cases assigned. For when it is said, science the science of the scible, it is noted that science is of the scible as of a subject or object. But when convertence is made, so that it be said, the scible by science is scible as a form which is posited concerning it, or more truly a form which from the scible is caused in the knowing [person]: because the scible according to form is effected in the intellect of the knowing [person].

But if someone should object, that such modes of construction the grammarian has to consider, and it does not pertain to the logician, It must be said that according as such habitudes from diverse construction are made, the grammar-

construction, the grammarian considers them, but according as the voices in this signify diverse predications of things and modes of predicables, the logician has to consider them. Thus therefore those things which are relatives are said in reciprocity.

There is however in these sometimes an impediment in the figure of the voice, because sometimes reciprocity according to the diction is removed: whence sometimes it will seem to

be not true, that relatives are said according to reciprocity, unless it be assigned conveniently according to the figure of the name and the case to that towards which it is said according to name and case. Unless therefore he who assigns errs, so that he does not refer it to that towards which it is said according to name and case, then it will seem to be reciprocated, just as is manifest in the wing, which because it says an organ of flying by its very name, it is clear that it is of another which uses it for flying and it is not said absolutely: because if it were said absolutely, even if cut off it would still be a wing, which is false. Since therefore the wing is not its own but another's, nor is it a wing to itself but to another, if it be assigned that it is the wing of a bird, there is an error in the assignment, and therefore it is not reciprocated: because the first assignment was not convenient, when it was said the wing of a bird is a wing: and therefore it is not reciprocated, so that it be said, the bird of the wing is a bird. For it is not in that which is a bird, that it is called a bird of a wing, but in that which is winged: for there are wings also of many other animals, which nevertheless are not birds, nor are they contained in the genus of birds. On account of which if it be assigned conveniently according to name and case the wing to that of which it is, immediately it is reciprocated, as if a wing be called the wing of a winged [thing]: for then it is reciprocated, so that it be said according to the ablative case, the winged [thing] is winged by a wing.

Whence also in such things in which names are not posited, it is necessary to feign some names according to a convenient assignment, as is clear in the oar, which because it is an instrument, says that which is of another or is to another. If therefore it be assigned thus, so that it be said the oar of a ship is an oar, it will not be a convenient assignment according to the thing and name and case: for the oar is not

said of the ship in that which it is a ship: for there are ships of which there are no oars, such as great ships which they call boats which are moved by masts and sails, and cannot be impelled by oars: and therefore because the assignment was not convenient, it is not reciprocated, so that it be said, the ship of the oar is a ship. But perhaps the assignment will have been made conveniently, if it be assigned by saying thus, the oar is the oar of an oared thing, or in whatever other way it be said according to a convenient assignment of the voice. as if "remite" does not please, let it be called "remate": for such an assignment is made at the pleasure of the one feigning names, for a name in such things is not posited, but it is reciprocated if the name be assigned according to the figure of the diction and according to a convenient case: for just as the oar is the oar of the oared, so the oared is oared by the oar. But similarly it is in others, which that very thing which they are, are of others, and are not absolute as to that which they are, nor do they have in themselves that which they are: for in all such things reciprocity is made if it be as-

signed conveniently, as the head, which because it is a member and organ, is not for itself but for another and of another: therefore the head is the head of the headed and the head of an animal is not a head, because it is not in that which is an animal, that it is a head: for many animals are not having heads, such as all genera of oysters and shellfish, as purples, murexes, and many others. But thus perhaps reciprocity is more easily taken, as when names are not posited, either it be formed from those to which names are posited, or it be feigned and figured from those which are reciprocated, just as is clear in those things which were said, just as from the soul was formed the animated and from the oar the oared.

From these things therefore it is universally concluded, that all things which are called relatives, if they be assigned conveniently according to the figure of appellation and the case, are said in reciprocity: for if they be assigned to whatever they are not said of, and be not assigned to that to which they are said, reciprocity does not happen. Which is thus proved by the locus from the greater: because even in those which are indubitably said to be convertible, and -

to which names are posited according to which reciprocity happens, reciprocity does not happen unless they be referred to those same things which they are, under a convenient assignment, as if they be assigned to those which are extrinsic and happen to those to which those things are per se related, and be not assigned to those to which they are to be referred according

to this, that they are of others, as is clear. For if a servant as to this, that he is indubitably a relative, be not referred to the lord towards whom he is said [to be] and of whom he is according to this, that he is a relative, but because it happens to the lord to be a man, he be referred to a man, so that it be said thus, the servant is the servant of a man, or it be said, the servant is the servant of a biped, or of any of such things which happen to the lord to which he is not per se referred according to the dependence which they import in the name, reciprocity does not happen, because for this it was not a convenient assignment: for there are many men and bipeds not having a servant.

because immediately a servant is not said towards a man: for since a lord be not [present], it follows that a servant is not, because relatives posited posit each other, and destroyed destroy each other, as in the following will be manifest. Similarly it is of the bird, this be not attributed to the wing, but to the being winged, and thus the wing is of a bird as it is winged and not as it is a bird. And this is clear through the aforesaid: for if it be assigned to the bird, then already no further will the wing be a relative or the wing of something, unless it be called the wing of a winged [thing], and the winged [thing] winged by a wing: for when it is posited that nothing is winged, it follows that the wing will be nothing, because this will be the wing of another and not of itself.

From what has been said therefore it is concluded, that that which is relative, it is necessary

to assign conveniently to that which it is and not to another: and thus if a name is posited for both, the assignment according to reciprocity will be easy: but if a name be not posited for both relatives, perhaps it will be necessary to feign names if the relatives ought to be said in reciprocity. But if thus according to the figure of appellation and the cases they be mutually rendered or referred to each other conveniently, then it is manifest that all relatives are said mutually in reciprocity, that is, according to reciprocity.

### CHAPTER VII. ### *On the property of relatives which is to be simultaneous by nature.*

But from these things which were said, that namely relatives are said in reciprocity, follows another property of relatives, which is that relatives or toward something seem to be simultaneous by nature. But that they are said according to reciprocity, and that they are simultaneous by nature, differ in this, that reciprocity is in this according to the mutual relation of them towards each other in appellation and case: but they are simultaneous by nature in this, that according as they are related, in being and not being, or in rise and setting, as Avicenna says, they are simultaneous, so that one being posited in being according as -

it is relative, and there is posited another according as it is referred to that: and with one destroyed according as it is relative, there is destroyed also another according to the relation according to which it is referred to that. And in many others this is true, because simultane-

ous they are by nature according to the said mode: and it is said that one being posited the remainder is posited, and one being destroyed the remainder is destroyed. For when there is a double, it follows that there is a half, and conversely: and when there is a servant as a servant, it follows that there is a lord according as lord, and conversely when a lord as lord is, it follows that there is a servant as a servant. But similarly it is in others: for according to this that they are relatives, simultaneously they remove themselves from each other: because just as the posited posit themselves, so the removed remove themselves, as is clear by induction and example: for when there is a double, it follows that there is a half, and when there is not a double, it follows that there is not a half, and conversely. But similarly it is in all others whatsoever such there are, which according to truth and according to that which they are, are of others.

And not in all does this seem to be true. For in certain [ones] which have the mode of relatives, this does not seem to be true, that thus they be simultaneous by nature, that posited they posit themselves and destroyed they destroy themselves. For there seems to be an instance: because when the scible is, there is not science: and if the scible be related to science, it seems nevertheless the scible not to be simultaneous by nature with science, but by nature the scible is prior than science: the proof of which is, because we as in most [cases] do not receive sciences concerning things, unless things already subsisting: for the

reason that we cannot receive real sciences, unless from the principles of things received in the intellect, and thus it is necessary the scible things to be prior, than our science concerning things. But I say as in most [cases] to be thus: because if any science is not concerning things which are outside us, but concerning things which are from us, in these for certain it is necessary that science precede the scible, just as it is in ethics, to the essence of which precedes to know and to will.

This in real sciences generally is true, that the scible according to this that it is, seems to precede our science which is concerning the scible itself. In few therefore or perhaps none can anyone receive science to be simultaneous with the scible. But I say in few on account of morals: but in none, that even in those in some mode the scible as a concept, although not as posited in being, is before science.

But further this same [thing] is proved in another mode: because from the scible to science consequence is not converted: but the scible removed simultaneously removes science: for if the scible be not, science is not, for the reason that there is no science which is not concerning some scible: but if conversely science be not, nothing prohibits still a scible to be: for as Boethius says, there are many scibles of which the sciences have not been found, just as can be understood in the quadrature of the circle, which although it be scible, science however concerning it has not yet been found.

Further this same [thing] is proved from the lesser arguing thus: less it seems that an animal being removed science be removed, than that the scible being removed science be removed: therefore much more it is removed, the scible [being] removed: for every animal being removed there cannot be science: but positing that there be no animal and there be no science, still it happens very many things to be which are of the number of scibles.

But similarly to these relatives hold themselves which are concerning sense and the sensible which is referred to sense. For the sensible prior seems to be by nature than sense made according to act: because we speak concerning this sense and not concerning that which is the potency of the sensing [subject]: for the sensible object acting in sense, is prior to sense and prior according to nature than sense, and therefore the sensible destroyed simultaneously destroys sense made according to act. But sense made according to act [being] destroyed, does not destroy the sensible. The cause of which is, because sense made according to act is not except concerning a body which is perceived by sense, and sense accor-

ding to act [made] in some sensible body are indeed through sensible qualities which make sense according to act. When therefore there is no sensible body, it is necessary that there be no sense made according to act: therefore the sensible destroyed destroys sense made according to act: therefore the sensible destroyed simulta-

neously with itself destroys sense. But sense destroyed does not necessarily destroy the sensible, because no sense according to act existing, many sensibles still are.

And this is clear again arguing from the lesser: because less it seems that an animal destroyed there should remain a sensible undestroyed, than that the sense destroyed the sensible should be destroyed: but an animal destroyed all sense is destroyed: but the sensible still is and remains: for many bodies still remain hot and sweet and bitter and all others which are disposed according to sensible qualities: all which are sensibles.

Further to this same [point] it makes [is the fact] that sense is made with the sensed or with that which has sense, for this we call sensed: for simultaneously an animal is made with sense, because on account of sense it is called and is an animal, as Avicenna says. But the sensible is before by nature than an animal or sense would be, because from sensibles an animal and sense are generated: for fire and water and elements of this sort from which it materially consists according to nature are before there is an animal. Therefore the sensible seems to be prior than sense.

But it is to be attended that all relatives, as was said, are simultaneous by nature according as they are relatives, although they be not simultaneous according as they simply are. For those are relatives which are prior and posterior, which indeed according to their being can never be simultaneous, nevertheless the prior in the reason of prior is simultaneous with that which

by it is posterior in the reason of posterior, and in this mode posited they posit themselves and destroyed they destroy themselves.

But this which concerning the scible and science was said and concerning the sensible and sense, must thus be understood that indeed the scible and the sensible can be accepted according to this that they stand in substantial being, or according to this that they stand under the form of science and sense: and this is to say that they can be accepted materially, or formally. If they are accepted materially, then the scible precedes science, and the sensible sense, just as in the formerly had was said, because the scible is the cause of science and the sensible is the cause of sense made according to act. But if these are accepted formally according as the scible indeed stands under the form of science, but the sensible under the form of sense, thus they are simultaneous by nature, and in this sole mode they are correlatives and not otherwise. And similarly it is concerning cause and caused, and principle and principled, and many others.

Also it is to be attended, that nature (when it is said that relatives are simultaneous by nature) does not suppose except the form of relation: whence simultaneous they are by nature, which are simultaneous according to form or according to the nature of relation: because as to the nature of those which are related mutually to each other, they are not simultaneous, and according to that nature sometimes one is prior, and another posterior, as was said concerning cause and caused,

and principle and principled, and father and son, and chiefly in this which is prior and in this which is posterior.

But further you should know, that this argument does not avail: the scible is called according to potency: potency is referred to act, as Aristotle says in the tenth [*book*] of *First Philosophy*: therefore the scible is referred to science according to act: because many are relatives in genus, which are not relatives in species, as is clear in science which is referred, and grammar which is not related.

## CHAPTER VIII.

Concerning the disputation against the induced definition of Plato and the correction of his saying.

But it has question or doubt, whether according to the above indu-

ced definition of Plato no substance is called 'toward something', as seems from the reason of substance which is being per se subsisting: and what is per se subsisting, is absolute, and to itself in itself and its being is not from this that it be toward another. Thus therefore it seems that none be 'toward something', whether it be a primary substance or a secondary [one]: whether substance be signified concerning the whole or concerning a part, by its name it always is being per itself and is not to another. But if this is conceded to be true, then still there remains to the opposite the disputation according to the above induced definition, which says that to

be 'toward something' are, whatever this itself which they are, of others are called: because if this definition is well assigned, substance seems to be 'toward something' according to certain substances signifying concerning a part and not concerning the whole. The proof of which is, because in primary substances it is true that they are not called 'toward something', whether it be signified concerning the whole or concerning the parts of primary substances: for a certain man is not called of someone a certain man, since nevertheless through the genitive chiefly they are called 'toward something' in those which are relatives[1]: neither a certain ox of someone a certain ox, because man and ox import the reason of substance in their names, and dictate nothing added to substance through which they be referred to something: and therefore also not grammatically is it said, of someone a certain ox, nor of someone a certain man: because the genitive in such [cases] has no habitude to note according to which a construction may be made. But similarly it is also in parts which are as parts of primary substance: for a certain hand is not called of someone a certain hand, but simply it is called of someone the hand. And of this the cause is, because although it dictates a substance which is a part of some whole, and in the name of hand through the reason of hand as it is the organ of the intellect and the organ of organs, there be imported a comparison to the motor of the hand, through which a motor is effected, so that it be not absolute from rela-

tion, nevertheless through this that it is said a certain hand, it becomes a singular hand: and a certain hand is the same, as this demonstrated hand, and by demonstration it is determined to this which is under sense, which according as it is under sense, is not referred to another: and therefore it is nothing to say, of someone a certain hand: and this is the true cause. Nor is it to be cared concerning this which others say in this place.

Through the same reason also a certain head is not called of someone a certain head, because although head be dictating a substance under comparison to a motor whose head it is, since nevertheless it is referred to this singular through this that it is said a certain head, which is the same as this head, it is not said except under accidents by which it is demonstrated: and through this it is not 'toward something', because the comparison which it dictates in the name, is not a demonstrable accident: and therefore it is not called of someone a certain head, but it is called of someone the head without determination to this singular on account of the comparison which the name imports, when without determination it is posited to the singular: for then it is the name of an organ or of an organic part which always according to the reason of its name is referred to something whose organ it is: for such [things] which import such comparison in the name are called 'toward something', as Plato said.

But similarly it is manifest in secondary substances which signify concerning the whole, that

they are not called 'toward something': and this is clear by inducing in many, as man is not called according to name of someone a man: because man absolutely names a substance, and through the reason of the name adds no comparison above substance which may be signified in the name. And through the same reason ox is not called of someone the ox under the name of ox, or wood of someone the wood under the name of wood, but this if it be called of someone, it will be under another name, importing comparison to something in the mode of signi-

[signi]-candi importante, as if possession were said, because possession imports a comparison to the possessor, for the possessor is called the possessor of the possession, and the possession the possession of the possessor. In these substances, therefore, it is manifest that under the names of first and second substance they are not 'toward something' (ad aliquid). In some second substances, however, signifying concerning the organic part and not the whole, there is some doubt because the name of the organic part does not say substance except standing under a comparison, which because it is imported in the name, it is necessary that it always be said 'toward something', although according to its being which is substantial, namely, being from flesh and bones, they are not 'toward something': such things therefore are called 'toward something' and are not 'toward something' according to that which they are or according to the substantial being from which the name is imposed. Thus

therefore the head is called the head of someone, and the hand the hand of someone, and the individual names of the organic parts are of this kind according to being said relative to something and not according to being: on account of which these names of the organic parts of second substance will perhaps seem to someone to be 'toward something'.

For it perhaps seems to someone that just as it is in being said through the name, so it is according to being, which nevertheless is not true as will appear below: since this was the cause of Plato's deception, who said all such things were 'toward something' on account of the mode of those which are 'toward something' which they import in the speech. If therefore anyone concedes that the definition of those which are 'toward something' is sufficiently assigned, so that it is convertible with those which are 'toward something', it is either too difficult or impossible to solve without some substance being 'toward something' according to that definition. For if whatever are called 'toward something' according to name, are also 'toward something' according to being and truth, as Plato said, it is impossible to escape that the foot, hand, and head (which are second substances) are 'toward something', and especially if it be conceded that to be said 'toward something' and to be 'toward something' are the same.

But if it be said that to be said 'toward something' according to the name connoting relation is not to be 'toward something' according to

truth, it will still be difficult to solve or escape that some second substances are 'toward something': because the name of hand and the name of head and the name of foot and such, although materially they say substances as that upon which the name is imposed, yet formally as to the property from which the name is imposed, they say that which is referred to another, because they say that which they say through the mode of an organ and an official member for some act: but such a name says a relation to something, namely to the motor of which such is an organ. Boethius however and Alexander seem to say that when it is said, "either too difficult or impossible to solve," that one is said for the expression of the other: as if it were said, it is too difficult and, to speak more expressly, it is impossible to solve. If however it be said that the introduced definition is not sufficiently or convertibly assigned, but is to be corrected, because they are 'toward something' to which this itself, to be, is in some way to be related to something and not only to be said, then perhaps something will be said.

And it can be said against those, namely that second substances as substances are not 'toward something' except according to a certain mode which is in the speech: because then these names, foot, hand, and head, principally signify parts of substance, and substance is not composed except from substances, and secondarily through the mode of signifying they connote with the principal signification that which is called 'toward something': and this indeed is true. But those

which are 'toward something', in the principal signification say that which its principal being is 'toward something', and it has its being from that toward which it is, and not from itself, nor in itself, like father, and son, and half, and such.

But this definition differs from the other which was pre-introduced: because the prior definition follows all relatives, whether according to -

truth they be something, or according to mode only: but not on account of this is it in all relatives, that this itself which they are according to their whole being of others they be called: for this does not convene to all relatives: for certain [ones] connote with principal signification the mode of relatives, and not according to truth. This Plato seems to ignore.

And thus head and hand connote that which is called 'toward something': but by principal signification they say substance. And this is the true solution of the induced difficulty: because thus the name of relation is reduced to a thing which is one of the primary things or of the primary genera of things, which it happens to signify through one of the primary words of predicables.

## CHAPTER IX.

Concerning the property of true relatives which is if anyone should know one of them definitely, and the remainder he will know definitely.

But from these it can be had, that since of those which are truly 'toward something', being and quiddity is 'toward something', that if

anyone definitely, that is, determinately through true definition, knows one of those which are 'toward something', it follows that that to which it is and to which it is called, through true definition he will know: and this is one relative to be defined not indeed through the remainder, but to be defined toward the remainder: nor does the intellect of quiddity or its definition stand as determined unless to be determined it be signified toward another, as when I say, a father the father of a son, and a son the son of a father. Openly therefore is this which was said. For if anyone knows definitely that which is 'toward something' according to truth and its being, that is, if the being of such that it is 'toward something', definite and certain in some mode he has, that is, according to relation to hold itself, so that it may have the principal being of relation, necessarily it follows that he also knows definitely that to which that [thing] holds itself in some mode or according to

relation: and this does not follow except because definitely the first is not posited, unless the other be posited determinately according to a word definite according to being. For if he does not know this to which that in some mode, that is, according to relation holds itself when it is definitely posited in the definition, the same he is to know if that which he says to be 'toward something', holds itself to that according to being. But this is open through induction in individuals, as in this which is double: for if anyone definitely knows, that this is double, and definitely the

intellect of its quiddity is assigned according to a certain name toward that whose double it is, it follows that soon by the assignment itself he knows also this whose double it is: because this by certain nomination is expressed in the assignment of double, when it is called double the double of a half. But if nothing or in no mode definite and certain does he know whose double it is, it follows that also altogether he does not know, that that is double which he was saying to be double. Similarly also if he knows definitely in the comparative, that this is better or greater, it follows also that definitely he cognized than what it is better: because comparison otherwise would be vague, which is signified in the comparative, since no comparison can be unless finite in terms: because otherwise of comparison it has not the intellect. On account of which generally it is concluded, that it is necessary, that if anyone definitely knows one of relatives, also that to which it is called, according to relation definitely to cognize it is necessary.

But if it be objected against this that relatives are opposites, for opposites are not born to define each other mutually, It must be said that of every single thing there ought to be a definition according to the mode of its quiddity: but the being and quiddity of relation is not absolute being and absolute quiddity, nor from genus and difference is it constituted just as absolute being, but just as dependent being, and what is more just as a certain dependence to another, and dependence

is to it for genus, and the correlative to which it is, to it is for defining difference-

ng it so that in act it be relative: and therefore thus not through itself but toward itself is it defined, just as in being and quiddity it is toward itself[1], and in this mode each is defined through the remainder. Nor nevertheless does it follow that one be more known than the other, or prior to the other, or simpler than the other, according as the being of each is finished and determined through the remainder: nor is it inconvenient, that that which is 'toward something', be not defined just as other predicaments, because its being is not just as the being of others[2].

But from these it is manifest that a hand and head and similar [things] which are of the number of those which are substances as parts of secondary substance, this itself which they are according to substantial being which in the name principally is signified, can be known definitely according as it is a part composing a substance: and on account of this it is not necessary to know this to which they are called, because they have not relation except in the connoted in the name, and not in the principal signification: and therefore in the reason of head and in the reason of hand as to principal signification it is not to be said definitely whose is this head and whose is this hand: because head and hand are defined not to that whose head it is and whose hand it is[3]: and thus cannot be defined a father or double: or better on account of what follows, that according to truth and their principal being they are not

'toward something'. But if these which are parts of secondary substance, are not of the number of relatives, since concerning those it more seems than concerning others, it is necessary to say that none of primary or secondary substances be 'toward something' according to truth.

However perhaps it is difficult concerning relatives of this sort confidently, that is, by certain reason to determine something on account of the similitude of those which are called 'toward something', to those which are 'toward something' accor-

ding to truth, unless often subtly they have been treated, so that those which are called 'toward something' from the connoted, be distinguished from these which are called 'toward something' according to whole being and quiddity and according to truth. But treating subtly to doubt concerning individual [ones] of these what this or that be will not be useless, because thus is found the truth of those which are called 'toward something', and of those which are 'toward something' according to the being of their quiddity and according to truth. On account of which Aristotle says[4] that those potent to doubt toward each part, easily will speculate what is true and what is false in each.

Nevertheless it is to be attended that in many modes it is called 'toward something', namely as to an end and act on account of which it is, just as an eye to seeing, and an axe to cutting, and many substances are 'toward something'. Also it is called 'toward something' as matter to form,

and thus proper matter is to proper form. And it is called 'toward something' from the connoted with its principal being, just as a head, and a hand. And it is called 'toward something' according to principal and whole being, just as a father and double: and thus no substance is 'toward something', as was said. Thus therefore the definition ought to be corrected: for it does not make [something] to be a predicament, to have in something the mode of some predicament, because also substantial differences have the mode of quality, and not on account of this are they of the predicament of quality.

## CHAPTER X.

Concerning doubts which are concerning the aforesaid [things].

But there is a doubt which arises from these which were said: for if relatives or 'toward something' are whatever, this itself which they are, are of another, and from comparison to something have being: then it seems that one accident in some mode ha-

[ha]-ve being in two subjects, yet in such a way that it remains the same in essence: for by the same reason it is in one, it is in the other by the same reason: for the father is called the father of the son: nor can it be determined or defined by one subject.

Furthermore, it seems that according to this, two opposite relations are one relation in number, such as fatherhood which is in the father

with respect to the son, and sonship which is in the son with respect to the father.

Likewise, it seems that sonship and fatherhood do not differ except in terms of their boundaries, just like the way from Thebes to Athens and from Athens to Thebes, which is the same, although it differs in terms.

Furthermore, whatever comparisons are from the same compared things and the same cause of comparison, those are essentially the same: but fatherhood and sonship and universally whatever relations or correlations contract being from the same compared things and the same cause of comparison: it seems therefore that they are the same in essence.

Furthermore, it is asked: if fatherhood is a relation, to what is it referred? if it is said that it is to sonship, it seems that it is false, because relations are generated from some motion, but motion does not happen about sonship, but about the son.

Furthermore, the son is referred to the father by sonship: if therefore sonship is also referred, it is referred by some relation, and there is a relation of a relation, and this will proceed to infinity.

Furthermore, by active generation the father is made father, and fatherhood becomes [present] in him: and if he generates another son, by the same reason a new fatherhood becomes [present] in him, and the same reason holds for a third, and so on: it seems therefore that many fatherhoods according to the same thing come to be in the same [subject]. But against this is:

because two accidents of the same species cannot be simultaneously in the same [subject] according to the same [respect], like two whitenesses: for they become one accident, because neither essences nor substances can have a difference. Therefore also two or more fatherhoods cannot be in the same [subject] according to the same being.

If it be said that they are distinguished with respect to different sons, against this is that according as they are in the father, they cannot be distinguished by this. Furthermore, relation is an accident in its genus, because it is in a subject, and afterwards it is a comparison to another: therefore it has two things in itself: and thus the most general [genus] is a composite, as it seems.

To these and similar things, it seems it should be said that one accident is not in two subjects as subjects, but one is in one as a subject, and in the other not as in a subject, but as in a boundary and end toward which its dependence is taken, just as fatherhood is in the father as in a subject, and in the son as in a boundary toward which its dependence is taken: and thus sonship is in the son as in a subject, but in the father as in a boundary finishing its dependence: and this is 'toward the father' and not 'in the father': and thus the father falls into the definition of the son, and vice versa. Nor is it inconvenient that in this diverse mode one accident should relate to two.

To the other thing it should be said that two opposite relations, or correlations, are not one: for the comparison of a relation in the middle of

two relatives is nothing: because, as has already been said, a relation is not in one as in a subject and is not essentially extended to the other: but one depends toward the other according to the intellect.

And what is objected concerning the same way which is from Thebes to Athens, and vice versa, it should be said that it is not altogether similar, except in the terms: for it does not have an extended medium, but through extension it has nothing but the inclination of dependence of one to the other, and therefore it is not altogether similar.

To the other thing, however, it should be said that fatherhood, and relation, and such abstracts, are of the predicament of relation in genus or in species, as conceived and not as exercised: and therefore such things are referred to nothing, but by them as forms those things which are referred to each other, namely relatives, are referred, relation by relation, and father by fatherhood, and -

of this sort, and therefore it does not go to infinity.

To the other it must be said that many paternities are not made in one [subject]: for since one is the principle from which the father generates, and the act of generation one in species to all begettings, one will be the paternity to all: but many sons by many filiations in number are referred to this one father.

And if it be objected that when a son dies he is not a father; and let us posit that one of the sons dies, then it always seems that one paternity

is destroyed, and remains, It must be said that this is not true: for upon making such a position, paternity is not simply destroyed, but its respect to this [son] is destroyed, and this is not to be simply destroyed.

And if secondly it be objected that paternity is nothing except a respect, and if it be destroyed as to respect, then it seems to be destroyed simply, It must be said that this is not true: for it still remains in a cause, and therefore it is not simply destroyed: for I say, that it remains in a cause reduced to effect in respect of the other sons.

To the last it must be said that relation is an accident: and so it is necessary that something be added to accident through which it become an accident of this genus: and thus every most general is composed from two intelligibles: on account of which the most generals are called species of being: whence also proper [attributes] are not assigned to them except insofar as they are species of being: because every proper [attribute] is caused from species, as Boethius says; but species has two intellects, just as has often been said in the science of *Universals*.

## CHAPTER I

*What quality is, and according to what intention it is one of the ten predicaments.*

After now it has been said concerning quantity which together with substance had to be nearby ordered, because substance is subjected to motion and alteration according to which

many accidental forms are made in substance, through quantity, because it is not moved, except what is quantified, as Aristotle proves[1]; after also it has been determined concerning 'toward something', which imports the other part of accident, which is 'toward something' in some mode to hold itself: now concerning quality it remains to be said, because through active and passive qualities substance is disposed to acting and suffering, which are the following predicaments: but through 'toward something' in some mode it is made susceptible of where and when, position and possession. And therefore these four predicaments as disposing principles to those six which follow are premised. For in quantity it is determined concerning the being which convenes to accident; in 'toward something' however it is determined to hold itself 'toward something', from which are not absolved where and when, position and possession: in quality substance is disposed to acting and suffering, which two follow quality. These four therefore precede, as disposing substance to the following. And because to hold itself 'toward something' happens from comparison of its substance to something, but quality from this that it is active

or passive from another or into another, therefore 'toward something' is ordered before quality.

Assigning therefore the description of quality we say, that describing quality, I say according to which as an accidental form we are called 'such' [qualitative] through denomination. For not, as we said in the formerly had[2], can denomination

from substance be made, because the substantial form cannot be abstracted, because it is in the reason of the subject of which it is predicated, whether taken in potency as the notion of the whole, just as signed in difference, whether it be the notion of the whole implicitly, just as signified in species, whether it be the notion of the whole explicitly, just as signified in definition: and therefore not according to that are we called 'such' as 'such', but rather 'what' or 'such-what' we are called. And because difference according to Porphyry and the Ancients is predicated not in 'such' only but in 'such-what', because although it be predicated in 'such', nevertheless 'what' it becomes in that of which it is predicated. But quantity is not according to which we are called 'such', but according to which 'how much' or 'of some quantity' we are called. But 'toward something' and the other predicaments are according to which we are said to hold ourselves 'toward something' in some mode, because by the comparison of one to another they are not absolved[3]. And therefore to quality alone it convenes that according to it simply and absolutely we are called 'such': for this neither to substance, nor to quantity, nor to 'toward something' simply convenes, because the substantial form or difference are not simply called 'such', but 'such-what', as we said. But the other predicaments and accidental forms and acci-

dental predicaments, either say that according to which accidental forms, and accidental predicaments receive quality by accident in a

subject, although it be not in except substance, or they say that which is to hold itself 'toward something'.

But the third mode of predication has remained, which is to be called 'such': according to which mode the active and passive substance which is the subject is effected. And this mode among the simple modes of predicating has remained alone. But simple I call, which in their modes of predicating conceive nothing other, except one simple mode[1]. For all six other modes of predicating conceive something besides themselves in the subject of which they are predicated, just as action the principle of action, passion the principle of passion, and when, and where, and position, and possession conceive the comparison of one to another. But these four modes of predicating are simple, just as substance in 'what', quantity of the subject in the quantity of dimensions, 'toward something' in comparison, and quality in quality according to which affected or disposed substance is perfected to acting and suffering. And because the antecedent three modes are of substance as substance is, therefore first concerning them it was to be treated. But because quality is not of substance, as substance is in itself or compared, but is of it as it is perfected to that which is to act and to suffer, on account of this in fourth place concerning this predicament it is to be treated.

Thus therefore describing quality I say according to which simply we, who are men, are called 'such': because although also other things be

called 'such' according to some quality, nevertheless not all of all qualities are susceptible: but only man among those which are known to us, is susceptible of contrary qualities: for of habit and disposition according to all species and habits of disposition none is susceptible except man, and not other existents known to us. This therefore is the cause because we so say, that quality is according to which we are called 'such', and it is not said according to which things are called 'such'.

And what could be objected that difference is according to which we are called 'such', has already been solved: for not according to difference are we simply called 'such', but also 'what': because, as Porphyry says, difference is that which conduces to substantial being, and that which is a part of the being of a thing: but every other accidental form although every accident is predicated in 'such', nevertheless it does not say 'such' simply, but rather either 'how much', or 'to hold itself in some mode' adds above 'such' what it predicates beyond accidental quality alone: and therefore quality alone through 'such' to be called according to it by correct definition is defined.

But if anyone should object that 'such' is what from quality is called 'such', and 'such' is defined through quality and quality through 'such', and the same is more known and less known than the other, and conversely, and the same more known and less known than itself. It is easy to respond according to the aforesaid, that namely when 'such' is defined through quality, a definition is given from things more known simply: but when

conversely quality is defined through 'such', then it is given through things more known to us, and in this mode it is not inconvenient that the same be more known and less known than the other nor than itself.

But from these it is easy to understand in what intention quality or 'such' be a predicament: for quality or 'such' is a predicament according as it is predicating simply 'such' and nothing else: for this is solely the accidental 'such' entirely absolved from comparison and quantity which could determine it to another genus of predicament, just as we said.

But from this it easily is clear why concerning the predicament of quantity we did not say, quantity is according to which 'of such quantity' we are called: for quantity is predicated in 'such', because it is an accident: but that 'such' is material in it to the quantity through which it is determined to the genus of predicament. And from that common 'of such quantity' of one mode a common denomination could not be had, because otherwise denomination is made from discrete quantity and otherwise from continuous.

Further yet quantity is most proximate to substance, and therefore constitutes the subject according to the being by which it can be subjected to motion which is according to accidents, rather than denominates properly speaking. But quality contains the terms of motion according to which denomination of substance is made.

And if anyone should object that motion also is in quantity and thus denomination ought to

be. Already in the formerly had this was solved, that motion is not in quantity according as it is quantity, but according to the reason of perfect and imperfect which are qualities in quantity. Therefore it happens properly to quality alone that simply according to 'such' denomination [is made], and according to this simple predicate it itself is a predicament; because even if in other predicaments 'such' is predicated, nevertheless it is determined to something other formal.

## CHAPTER II.

How quality is spoken of in multiple ways, and concerning its species.

But quality according as it is thus taken in common as predicament, is of the number of those which are spoken of in multiple ways. But it is not spoken of in multiple ways, as equivocal, or analogous which is said through prior and posterior, but it is spoken of in multiple ways as a genus, which through diverse differences is divided into those which are under it equally, so that equally they proceed from it, and not one through another. For thus there are four genera or species of quality, of whose none through the other participates the predication of quality, and therefore the species of quality from this common which is quality, proceed as a multitude. On account of which we say, that quality is called of these as of many, and not of one through which it may be called of others, just as substance, or another genus: because also in quantity continuous quantity does not become the measure of sub-

stance unless continuous quantity become number. And in 'toward something' to those which are 'toward something' according to mode, it is necessary that it be looked toward those which are 'toward something' according to truth, and thus they are ordered to one. But in quality immediately the common is multiplied into four, of which one does not participate the common through the other, but they are coequal under that which is common.

And if it be asked, according to the art of dividing, of what sort is the division, when quality is divided into four genera or species of quality? It is established that it cannot be reduced except to the division of a genus into its species: but those four species are coequal under the genus, and none subalternate to another.

But if it be objected that the division ought to be bimembral, We say that this is true when it is given entirely through differences constituting in genus or species: for these it is necessary to be opposed through affirmation and negation, just as rational and irrational: but when the division of an accident is given into modes or species by which an accident is effected in substance, it is not necessary: because those modes are not finite, nor a finite standing and ordering cause do they have. And therefore it is necessary to give such disposition through the mode of multiplicity and multitude: and thus it is concerning the species of 'such' and quality, for in quality such a division convenes. And this is the cause that (just as Alexander and Boethius say) Aristotle himself

entitled this predicament concerning 'such' and quality: because quality is not cognized except from the modes of that which is 'such', since from the modes of substance this or that quality is caused.

But the first of these is, which commu-

[commu]-nly regards substance, which is called habit and disposition: for this is suitable to incorporeal substance and to the corporeal thing which is composed from both, such as man. And it is suitable according to the soul and according to the body: because science and virtue are in man according to the soul, and health and complexion, which are habits and dispositions, are in man according to the bodies. Habit and disposition, therefore, are the first species of quality.

But although habit and disposition are about the same thing, and therefore are called one species of quality, nevertheless because they dictate an opposite mode or opposite modes about the same subject in which they are, and which according to them is called 'such' [qualified], they cannot have one name, because one name does not signify opposites, as Aristotle says. And this is the cause why one mode is called habit, and the other mode is called disposition. Habit, however, is the name of the perfect in this species, while disposition is the name of the imperfect. And therefore the principal name is habit, and the secondary, which is still in the making, is disposition. In whatever they are, however, (as was said) they are about the same thing, not equally, but according as the subject is made 'such' through

them: for this is moved toward this, and is in the making [in fieri]: and after it is perfectly moved toward this and in the state of having been made [in facto esse], then it is perfect: and therefore as long as it is in the making, it is in disposition: but when it is in the state of having been made, then it is in habit. Habit, therefore, is a certain act, while disposition is mixed with power.

From which it is clear that habit differs from disposition in that habit is longer-lasting and more permanent in the subject in which it is: which happens either by use of time, or by rooting in the subject which happens through the removal of those things which impede the subject from expeditiously doing that of which it receives the habit: for Averroes says: habit is that by which someone acts when he wishes. Whence habit is a quality making the power 'such' as to perfectly perform the effect proper to that power, whether it be a power of the soul or of the body. Such are intellectual habits, or rational, or opiniative, or virtues which are in [man] according to the will, and according to other parts of the appetite, such as the concupiscible and irascible, and also according to the reason according as it is participant in reason: because according to these it is ordaining of others, and it is in it like the moral virtue which is called justice. For science and virtue according to their name seem to be of the number of those which are permanent, and as if perfect, and standing and rooted in the subject: and they seem to be of the number of those which are moved or removed with difficulty from

the subject. But an example of this kind is as if we should say someone takes in science moderately: for taking it in not strongly, he does not hold it, because that which is not received unto perfection is easily deletable: but after it has been taken in, it is moved with difficulty from the subject, unless perhaps a great permutation happens through some madness, or apoplexy, or other such thing. And because it is not changed except by great accidents, for this reason indeed it is not altogether immovable, but seems to be moved with difficulty.

But through sicknesses such permutations especially happen, because although such habits are present according to the soul, yet because the body is the organ of the soul, the permutation of the body impedes the operations of the soul and corrupts such habits. Such a habit also (when it is possessed perfectly and for an expeditious act) is so called. Similarly is called also virtue, which is fortitude, and justice, or chastity and such, which are of the number of such, which namely dictate perfections toward a proper and general act, whether it be of nature or of art, just as sight is a natural habit, and science and virtue are acquired habits, and health a habit of the body and sickness likewise. Similarly when such things perfecting the powers of the soul -

[soul]- or of the body toward the acts due to them, are rooted and attained so that they cannot easily be removed from the subject nor easily changed except from great changes, then they are called habits, because then they are

possessed with perfect attainment: and because then the power which before was wavering in act and fluctuating, stands in them, as in a perfecting and perfected form toward the operations of that power.

But they are called affections or dispositions when the subject is not except in some way affected or disposed through them, and the power is not yet perfectly attained, but is continually disposed toward something else. And therefore such dispositions or affections are easily and quickly changeable into the contrary even by small occasions, just as heat when it first affects the body, and has not passed into a habit, as in the case of a feverish man [ethico] in whom heat is held as a habit: and just as coldness which first affects that which it touches, and has not yet passed into a habit, as in him who is dissolved by a cold paralysis: and just as health which is a habit and temperate medieties according to the nature of the complexion, and sickness which is a distemperance of this kind of mediety, and other such: for concerning such [things], as long as they are dispositions, a man is affected in a certain way by a metaphorical touch toward a not great immutation: for quickly and by an easy occasion a man is changed by such, as when from hot he becomes cold, and vice versa: and thus easily from health he passes into some sickness. But similarly it is in other habits spoken of after the manner of a habit. For 'disposition' is said of any of such, unless perhaps in these which were mentioned it should so happen that it occurs

that through length of time they are transferred into something similar to the nature of whatever thing, which is called 'such' according to them: for then it overcomes the power, and the power stands in it as in the ultimate perfect [state], and then it is a habit: and then someone according to these is made incurable, that is, not easily curable and changeable to the form of the habit: for such an affection or disposition affecting anyone is made not easily movable, and is such as anyone speaking rightly - calls a habitude or habit rather than an affection or disposition.

But that they should wish to be called habitudes and not dispositions by their own substantial reason is manifest when they are difficultly movable and longer-lasting in time through which they pass into the mode of nature. And this is clear by induction: for in disciplinable [subjects] those who are not much retainers even of the disciplines, but are yet easily movable from them through forgetfulness, are said not to have the habit of disciplinable science, although they are perhaps disposed and affected either worse or better toward the discipline. Wherefore it is clear that habit differs from disposition not formally, but in this, that disposition is something easily movable, but that which is a habit is more lastingly rooted and therefore difficultly movable.

But habit and disposition relate to each other according as they make the substance 'such' [qualified], in a certain way like the lower and the higher: and therefore they pertain to the same thing and to the same species. For habits are in

some way dispositions, but it is not necessary that dispositions be habits. For a disposition is that which disposes toward doing something, and since a habit perfects and inclines the power toward an act or operation, a habit is according to this a disposition. Wherefore Tully says that a habit is a disposition of the perfect toward the best. And in this way Aristotle wills in the Ethics that a habit is a disposition toward happiness. But it is not necessary that dispositions be habits, the proof of which is: because those who retain a habit are also in a certain way disposed, because disposition dictates an ordering of the power toward the act. Whence those possessing a habit are disposed better or worse toward those [things] of which they have the habit. But as for those who are in a certain way disposed, it does not follow altogether or universally that they retain the habit. And the cause of this is that disposition by its own name does not dictate except an ordering of the power toward the act: and this can be either fully attained, and thus it is a habit, or not fully, and thus it does not add any-

[any]-thing above the common name of disposition, and is called by the common name 'disposition': and insofar as it falls short of the perfect, it is opposed to habit, and therefore does not deserve the name of habit.

## CHAPTER III

*Concerning the doubts which are about the aforesaid things.*

But in these things which have been said there is much doubt. For the first doubt is, since one species of quality is one simple form, it seems that it ought to be named by a single and simple name. And it seems that this species ought to have one simple name, so that it be called either habit or disposition only by one name, but it is not called habit and disposition as if both names were suitable by a copulative conjunction.

Furthermore, because of this that it is easily movable or difficultly, it seems that the name should not be doubled or varied: because these happen to the same thing, and on account of an accident the substantial name ought not to be varied, as it seems.

Furthermore, since from similar acts similar dispositions and habits are left, it seems that both habit and disposition have an efficient cause which formally acts as one: but since that which acts formally does not act except according to its own form in that in which it acts and induces its own form, it seems that disposition and habit are of one form, but names are imposed from the form. It seems therefore that they ought to be named by one formal name. And this indeed the Ancients conceded, as Boethius seems to intimate, and this which we call disposition and habit, they named by the common name 'application' [applicatio].

Furthermore, it is asked, since habit is made from disposition, how habit is made from disposition: for since dispositions are left from acts, it is necessary that the first act leave something

formal and the second something else, and so on: either therefore it is the same which is left from the acts or it is not the same. If it is the same, it follows that the same thing simply according to form is acted upon by many agents divided in time, which is not intelligible: for the same and one cannot have many causes equally proximate according to one and the same genus of causality. But if those things which are left from the acts are different, then it is asked what unites them in one substance of a habit: for the subject cannot do this, because the unity of the subject does not make the unity of accidents: since in one and the same subject there are many accidents differing both in genus and species.

Furthermore, let it be asked how many acts, or what or how much time is required for a habit to be made from a disposition?

Furthermore, according to Aristotle, when someone from not knowing becomes knowing, it is a certain motion: but in alteration there is motion, in which there is quality after quality, and form after form, and a continuous flux from power to act: and according to this it seems that operations inducing a habit according to the form of science or virtue continuously alter the power of the soul and the soul, until it comes into the perfect act of science or virtue, and this would be the making of a habit from a disposition, so that disposition would be like motion, and habit like the end of motion, when it is in the state of having been moved in perfect act. But if this is conceded, then it seems that the operations which dispose

are not continuous but interrupted: and he who thus receives a habit is not moved by a continuous motion, but by an interrupted one: and it seems that many times it is in the state of having been moved, and thus many times in habit, as it seems.

Furthermore, there are many habits which are not made from preceding dispositions, such as infused and con-created habits: and thus a habit is not always from a disposition.

Furthermore, it is asked about that which Aristotle seems to say, that dispositions -

are affections: and it seems that he calls hot and cold, or heat and cold, dispositions and habits, which are rather in the third species of quality, which is passion or passible quality. But if it is said that they are in the first species and in the third according to some mode, against this mode is what was determined above in the previous matters: namely that of diverse genera not placed subalternately there are diverse species and differences: but disposition and habit, and passion or passible quality, are diverse genera of quality and not placed subalternately.

To these and similar things, however, it seems it must be said that disposition and habit are one species and the first of quality, which makes a qualified thing according to an accidental denomination. Moreover they are one species from one form by which the subject is informed in species: because a disposition is of the same species with a habit, just as if someone is disposed by a logical or geometrical knowable, he

has that same knowable perfectly when he has the knowledge in habit. Hence a knowable in disposition, and a knowable in habit is of the same form in knowledge, and on account of this also habit and disposition are one species of quality and not two. However, it is named in two ways: because it isn't only named as the qualified thing which such a quality leaves in a subject according to form: but also this accident is named according as it is that qualified thing in the subject, according to whether the subject has it perfectly or imperfectly. Which two things, because they have an opposite mode, cannot be named by one name, but one is imperfect, the other perfect towards an act: for one having a habit acts without impediment when he wishes, but one who is disposed acts with impediment. And because, as has been said, habit and disposition pertain to one form, therefore the names of perfect and imperfect are joined through a copulative conjunction, because indifferently through the being of perfect and imperfect which are ordered in one motion to one end: therefore disposition is material towards a habit, and a disposition is the act of the imperfect, but a habit is the act of the perfect and constituted. This is therefore the cause of the two names and of the order of disposition to habit, and of the copulation which joins between the two names.

To that, however, which is objected, that to be easily movable or with difficulty are accidents of a qualified thing, according as it is in a substance, it must be said that this is true, but because

names are imposed from these accidents, for that reason it was necessary to give two names. And to what is objected, that there are two names of that qualified thing according to form, it must be said that this is true, but they are names of that quality, according as the qualified thing which speaks of that quality, is rooted in the subject: and from such accidents impositions of names are often made, but especially in accidents whose proper naming and also definition is, that they be named according as they are in the subject from which and in which they receive their being and name and definition: and this is the cause that there are two names of that species, which nevertheless are one in form and in end.

To this, however, which is objected that from similar acts similar dispositions and habits are left, it must be said that it is true, and it is also true that they are of one form: but nomination is not always from form: for sometimes, as has been said, denomination happens from an accident consequent upon the form, and so it happens here when disposition and habit are spoken of. To what is said that the Ancients named this species with the one name of application, it must be said that this is true, and therefore deceived by error they said those species are not species of quality, but they said that they are distinguished by the modes through which they are effected in a substance, or by the modes through which they are in a subject: and because the first species is through a mode of acquisition through the very operations of a subject, and what is acquired

through operations, is gradually applied to the subject, therefore they noted the first species as application by the common name of disposition and habit. And because the second species is concerning a potency consequent upon substantial being,

through which something is made capable of acting or suffering, therefore they called that by the common name of natural aptitude. But because the third is about those things which by chance effect passions in the senses, or are acted upon by them, therefore they called that species by the common name of chance. And because through the fourth species a substance is composed in its parts according to the certainty of the boundaries of its quantity, therefore they called that by the common name of composition. And although this be true for that reason which has been stated, nevertheless it is clear that those common names do not speak of species and forms differing in quality and in the qualified thing which is called qualified from the quality, and thus they have to be properly distinguished just as also the species of quantity, and of that which is relative, are distinct: but these cannot have one name in the mode of distinguishing.

To that, however, which is further asked concerning the relation of dispositions and habits from acts or operations, it must be said that it is true that from similar acts similar habits and dispositions are left. Moreover, acts induce dispositions and habits in two ways. In one way, by removing contrary dispositions and habits

from the subject which is the power according to which the operation happens: and this mode was spoken of by Socrates and Plato, who said that sciences and virtues are present by nature, and that through study and exercise the subject is purified so that what is by nature may shine forth in the soul, just as a precious stone indeed receives nothing by polishing, but when what is impure is wiped away from it, then natural purity gleams in it. This is, therefore, one mode by which contrary dispositions are removed. But the second mode is that by which a form is generated in act in the soul, which is similar to the form of the operation, just as in that which is moved the form of the mover is according to act, which before it moved the moved thing, was not in that which is moved except according to power: and thus from power the soul is led out into disposition and habit towards the species of the operation.

To that, however, which is asked, whether what is left from the first act is the same as that which is left from the second, and so on, it seems according to Aristotle that it is the same in the substance of the form but diverse according to being: for the being left from the first operation is more mixed with power than that left from the second, just as that in motion which is near the beginning is more in power than that which is near the end. But to what is further inferred, that one and the same thing thus has many causes according to the genus of causality, it must be said that nothing is inconvenient provided that that same thing be diverse according to being:

because there are diverse agents through which it is effected in being, and in a diverse being until it stands in the last act: and thus in one altered thing there can be diverse alterants not in species but in number, and in one augmented thing there can be diverse augmentants not in species but in number: and this is nothing inconvenient. But that at one and the same hour there be diverse things, and equally immediate according to one and the same genus of causality acting upon the same thing in the same way, this cannot be.

To that, however, which is asked how many acts in number or how much time is required for a habit to be made from a disposition, it must be said that it cannot be determined, because subjects are not equally apt for the reception of a habit: and therefore in one more are required, but in another fewer.

To that which is asked concerning the continuity or interposition of such motion, it must be said that nothing prohibits this motion from being continuous on the part of the movable thing, and interrupted on the part of the mover. Averroes says this on the 2nd book of *On the Soul* and on the book *On Generation and Corruption*, that if someone be augmented by the space of a cubit through a year, it is not necessary that he be augmented proportionally according to the division of time in any week, or any day, or any hour.

of time: for sometimes it is augmented less, sometimes more, since it always goes out from the imperfect to the perfect, either by going

out from a contrary disposition, or by receiving an increase. So also it must be said here that the motion is continuous on the part of the movable thing by continuously laying aside contrary dispositions, or by receiving the species of the mover: but it is not necessary that the mover always remain in act, because the form which it first impressed, having in itself the power of the mover, moves in act, just as there is a moving power in a seed: on account of which it does not follow that the motion is at any time interrupted on the part of the movable thing. And therefore Boethius says that the knowledge of principles has a seminal sensible power towards the sciences.

To that, however, which is said that there are many connatural and con-created habits, which do not seem to be left from dispositions, it must be said that many connatural habits are left from natural dispositions, as the habit of sight for which the eye of the beholder is disposed through altering principles from the union of the humors of the eye. There are also some for which the subject is disposed by nature immediately as it exists, and those are founded in their dispositions, although they have dispositions preceding them in time.

To that, however, that disposition is called an affection by Aristotle, it must be said that this was stated through a certain similitude, because just as an affection is something making through its operation, that is, what approaches through action, but that upon which it acts is not yet con-

verted to its form through its action: so a disposition is a certain ordering of the patient and the moved thing toward the act of the agent which it has not yet perfectly attained: and through this similitude a disposition is called an affection. And what is said concerning hot and cold received through affection or through the mode of habit, all was stated through similitude to the mode of receiving habit and disposition: and it was not stated on that account that heat and cold are in themselves habits and dispositions, but therefore because their reception in a subject is sometimes through the mode of disposition, sometimes through the mode of habit. And from these the solution to the things asked is clear.

## CHAPTER IV.

*Concerning another genus of quality which is called natural potency or impotency.*

Another genus, indeed not a most general one, but a subaltern genus, is what we call natural potency or impotency. For it is a certain quality rooted in the substantial principles of a thing, which follows upon the whole substantial being constituted and perfected, according to which things are called qualified, that is, powerful to easily do or suffer, and not easily do those things which are according to nature or the conservation of nature. And when indeed such potency is caused from the victory of form over matter, which the form perfectly terminates to itself and holds terminated, so that it resists contrary

alterations, then such quality is called natural potency: natural indeed, because it is rooted in natural principles; but it is a potency, because it is the vigor and value of the form over matter for doing those things which are according to nature without impediment. But by the opposite, natural impotency is caused from the victory of matter and privation over the form which a contrary disposition impedes: which matter cannot perfectly comprehend and terminate to itself: and therefore vigor is diminished towards natural actions, and it easily suffers, and is overcome by contraries. And it is called natural impotency, not because nature is the principle of this defect, but because nature is impeded by contrary dispositions lest it be able to arrive at such vigor. This, therefore, is called a genus and not a species, because the agreement in a genus is less

than the convenience in species; for things agreeing in genus agree in the potency of matter, but things agreeing in species agree in act and form: and because natural potency or impotentia agree only in the potency of matter, therefore they are called a genus, because they agree only in a genus. And because these two are not united in one, therefore they are disjoined not by a copulative, but by a disjunctive conjunction.

Natural potency therefore is a quality according to which those having it are called potent towards natural things; natural impotency also makes things qualified according to which those having it are called impotent towards natural things. This species, therefore, had from princi-

ples, is another genus of quality according to which we call some pugilists qualified, who from the very principles constituting their nature are apt to give strong blows, as those who have stronger and exercised arms for easy motion and not impeded: and according to which we call some from the disposition of natural principles runners, who have very long and agile and mobile legs, and not a great weight of body which would induce weariness. And according to which we call some healthy or safe, as those whose flesh is proportional in its members and dense and clothed everywhere with a moderate amount of fat: for this does not receive contraries, and strongly holds the temperament of its complexion, and repels harmful things from itself. But we call the contraries of these in the disposition of the flesh unhealthy or sickly according to a natural impotency, because they can accomplish none of these things which have been said through a natural potency, in this way we call them healing or sickly. And simply or universally we call all those, and according to this quality of whatever sort they are called potent or impotent according to the quality which is called natural potency or impotency. For we call these thus potent or impotent, because they are in some way disposed through something generated in them.

Hence we do not say each of them is naturally potent or impotent on account of an adventitious disposition, like those who through art or exercise become pugilists or runners, or by the operation of medicine become healing or sickly: but

therefore they are called such, because they have a natural potency founded in natural principles to do easily anything of those things which are according to nature, or to suffer nothing of those things which are against nature: just as pugilists or runners are called from a natural potency, not because they are disposed by art or exercise, but because they have a natural potency founded in natural principles to do this easily without natural impediment: just as also they are called healing, in that they have a natural potency, so that they suffer by some light accidents against health. But those who have a natural impotency towards this very thing, namely of suffering nothing against health, are called sickly. But similarly it is called hard and soft by these, and similarly they have themselves by these according to a natural potency. For that is called hard which from the constancy of its parts has a natural potency that it may not quickly be cut or divided, but soft in that it yields quickly to what touches it, and is called passible of the same cutting, insofar as it has a natural impotency to resist, and so concerning others.

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### CHAPTER V — *On doubts which surround the second genus of quality.*

Now a doubt arises concerning what has been said: because since natural potency or impotency are rooted in the first constituting principles of a thing, whereas habit and disposition are acquired by time, indigency, and teaching, and

the exercise of habituation, it seems that natural potency or impotency are nearer to substance than habit and disposition. It seems therefore that natural potency or impotency ought to be the first species of quality and not the second.

**Second.** To this same thing it does that natural potency precedes being, but disposition and habit follow the being of a thing: it seems therefore that natural potency or impotency ought to be the first species of quality.

**Third.** Furthermore every disposition and habit supposes before itself a natural potency or impotency. By these reasons therefore the species of quality which is natural potency or impotency seems to be prior.

**Fourth.** Further it is also asked whether natural potency is a quality? for natural potency is from the form overcoming the matter, as has been said: but in this way natural potency is rationality, and intellect, and reason, and will, and the like, so that generally speaking, every power of the soul according to every part of it, so that even more generally you may say, every power of the form according as the form is the principle of action: but all these things are said to be substantial parts and not qualities.

**Fifth.** Furthermore Averroes says, on the second book of the *Soul*, that all diversity of organs which is in the body, is on account of the diversity of powers which are in the soul: therefore just as the parts of the body have themselves towards the body, so the parts of the soul have themselves towards the soul: but the parts of the

body are substances constituting and integrating the organic body, therefore the parts of the soul are substances integrating the power of the soul, and so they are not qualities following the soul: and it is similar concerning other natural potencies of any substantial forms.

**Sixth.** In the same way it is objected concerning the natural impotencies of forms: for this name is founded in privation, and it does not seem to be founded in any being or in any species of being: it seems therefore that it is not any quality.

**Seventh.** Moreover it does not seem to be rationally said what has been said, namely that hard is what can have a natural potency towards not being cut, and that soft of the same thing has an impotency: because in the same way it can be said that soft has a natural potency towards being easily cut, and that hard of the same thing has an impotency [1].

**Eighth.** Further it is also asked, since potency holds itself more on the part of matter than on the part of form, it seems that natural potency ought to be from the victory of matter over form rather than the converse.

**Ultimate.** Further it is also still asked why this species or genus of quality is not named by one name, so that it be called aptitude, just as Socrates and Plato and other ancients named it?

**Response to the first.** To these and similar things it must be said, that habit is the first species of quality, on account of this that substantial forms themselves are in matter as a habit,

just as Aristotle says [2], that the soul according as it is an entelechy, is present as a habit, and according to this a substantial form is present as a quality of matter, and in this way a difference is as a quality of a genus. Because therefore disposition and habit place their mode in the first principles of a composite substance, which alone substrates accidents, therefore they are the first species of quality. But natural potency follows the being of the composite: for it is consequent to the act which the form has in the composite and to the acts following the nature of the composite, therefore natural potency is the second species and not the first. And what is objected concerning time and doctrine, is not true of everything which has the mode of a habit, but is true of an acquired habit only.

**To the second.** To this, however, which is objected, that natural potency precedes being, it must be said that this is the potency of matter towards for-

-m and to being: and this is not a natural potency, but this potency is always consequent to being.

To this, however, which is said, that every habit is present according to some potency, it must be said that this is true, but it is not necessary that that potency be consequent to being: because a form as a habit is present according to a potency preceding being: but it is true that some habit as acquired or infused is present according to a potency which follows upon being, but from this it does not follow that generally a potency

consequent to being is before a habit, as is clear through what was said before.

To this, however, which is further asked, if natural potency is a quality? it must be said that a natural potency for acts consequent to being is a quality and an accident, according as all that is an accident which follows upon perfect being, because it is not of the substance: moreover this quality flows from substantials just as a property flows from the essentials of a species. And what is objected concerning the parts of the soul, it must be said that the soul does not have essential parts since it is a simple substance: but according as the soul is a potestative whole, thus its powers of intellect, and will, and sensible, and vegetative are its potestative parts, and thus they are called natural potencies rooted in its substance, and nevertheless qualities because they are consequent to the acts of being [1].

And what is said, just as the parts of the body have themselves to the body, so the parts of the soul to the soul; this is true according to something, and according to something it is not true: for according to this it is true, that the soul is compared to the body, as a principle of life and motion: for in this way potencies flow from the soul, by which it flows life and motion to the body, which integrate its power and virtue, just as the body insofar as it is movable by the soul and receiving life, cannot be simple, but it is necessary that from its na-

-ture flows a diversity of complexion and composition of organs, by which it may diversely

receive life and motion: and these are the parts of the organic body insofar as it is organic and not insofar as it is a body, and in this way thus potencies follow the nature of the body and the substance of the soul, just as the operation of the organs follows the nature of the body: and in this way each is integrated by its potestative parts. But according to the common mode it is not true, because the potencies of the soul follow the nature of the soul, not as natural parts, but as properties constituting the nature of the soul, but not leaving behind the nature of the soul: moreover the organs of the body are material parts of the body, materially constituting it. And Averroes speaks in the first way and not in the second. The same is to be said concerning all natural potencies flowing from a substantial form after substantial being towards consequent acts.

To this, however, which is objected concerning natural impotency, it must be said that although as regards the name it is founded in privation, nevertheless according to being it is founded in the contrary which is a contrary quality in matter impeding the natural potency.

To this, however, which is said that potency holds itself more on the part of matter, it must be said that this is not a potency for acting which is consequent to being, but rather it is a potency for being, just as was said in the preceding chapter: hence through this the solution is clear.

To this, however, which is asked concerning the name of the Ancients, who called that species aptitude, it must be said that it is not a name

suitable in every respect: because aptitude is not a univocal name to potency and impotency; because if something is apt for acting, through this very thing it does not have anything common to this and to that, through which it will be apt for suffering.

## CHAPTER VI

*â€" Concerning the third species of quality, which is passion or passible quality.*

The third species of quality is that which is called passion and passible quality. For we posit this as one species, for the reason that the forms of quality do not differ, but are of the same species of quality, and sometimes the same quality in number: for first it is a passion, and afterwards a passible quality. Since therefore they do not differ in species, neither in the quality nor in the qualified thing (which is so called according to them), therefore we say that they are a species and not a genus, and we say these two are one species. And we shall not join them with a disjunctive conjunction but a copulative one, so that they may be noted to pertain to the same thing. Nevertheless, because passion is an affecting and quickly passing quality, but passible quality is enduring and rooted in the subject, which modes are opposite, they cannot be reduced to the same name, because this name would be imposed from opposite properties of the thing and would signify opposites: therefore we designate this species by two coupled modes.

For we cannot speak of quality except as of an accident, which always has to be determined in comparison to substance, and therefore it is necessary that it be determined through the modes by which it is in a subject. Thus, therefore, they say that the third species of quality is passible qualities, which are already rooted and fixed in the subject, and passions.

Moreover, the manifestation of this is through induction and example. For they are of this sort as sweetness, bitterness, harshness, or sharpness in all extreme and middle savors, and those which are kindred to these that have been brought forward, as saltiness, astringency, and fatty savor. Furthermore, according to touch, heat and coldness, and things similar to these: according to sight, whiteness and blackness. Moreover, odors which bring passion to the sense of smell are determined according to savors, as Aristotle says. For the differences of sounds are not brought in here: because although they bring passion to the sense of hearing, nevertheless they are not caused from the first qualities (which are primarily active and passive, and by whose virtue that which acts, acts, and that which suffers, suffers): and therefore also they do not transmute the substance except by accident, just as the air with thunder, as Aristotle says, splits wood.

Moreover, since these sensible things which have been mentioned are qualities, it is manifest through the description which we first gave concerning quality: for whatever subjects receive those things so called as qualities, and whatever

also are informed by them, are called qualified according to them. But quality is that according to which we are called qualified; therefore these are qualities. This, moreover, is proved by induction and example, as in honey: for from the fact that the subject of honey receives sweetness, it is called qualified according to this, because it is sweet. In the same way a body is called white, because it receives whiteness informing it. Similarly it holds in all other things which have been enumerated.

These, however, are not called passible qualities because the subjects and objects which receive them as forms suffer anything or have suffered by an accidental passion or some other (although they have suffered by the natural passion of the habit of digestion), but they are called passible qualities because they bring passions to the sense: for honey is not called sweet because it has suffered something from without, and which impressed this sweetness upon it. Similarly it is concerning all things of this sort that bring passion to the sense of smell or taste. Similarly it is concerning heat and cold in fire or ice or water: for all these are not called passible qualities because those subjects which receive them have suffered anything from without, but because each individual one of them-

of those things which have been mentioned, they are perfective in the sense itself towards some passion and the mutation of the sense according to the quality of some sense, and therefore they are called passible qualities. This is

clear by induction: for sweetness effects a certain passion according to taste for the mutation of the taste. Heat does the same, which makes a passion according to touch, and similarly other tangible qualities. Whiteness, however, and blackness and other middle colors are not called passible qualities in a similar way: for they do not act upon the subject according to material being in such a way that they inform the sight with their qualities: for the sight of a white thing is not white, just as the taste of a sweet thing is sweet, and just as the touch of a hot thing is hot: and therefore in the sight colors do not complete passible qualities. But colors are shown to be passible qualities because the colors themselves which are qualities, are born in us from certain preceding passions in us. That there are many changes of colors in us through some preceding passion is manifest through the induction of experience: for someone blushing has been made red, since blushing is fear in a shameful deed committed: but fear by passion and flight of the heart according to systole, propelling the blood into the face. And similarly someone fearing has been made pale, with the blood retracted from the face to the heart. Similarly each one of such colors is born from some passion: and if such colors are born from such passions, it is proved that if someone has naturally suffered something similar, namely that he diffuses blood in the face, or leads blood back to the heart, it is necessary that he naturally have a color similar to him who by the passion of shame or fear has been made red or pale: which

is clear from this, that the affection of nature which happened toward shame in the expulsion of blood to the forehead around the body, that same cause also happens according to natural affection: so that the natural color be similar to him who from the passion of the soul or heart receives a natural color.

But speaking generally, whatever qualities are of the number of such cases, that is, which from such cases of passions have taken their principle from some passions difficult to move and permanent in the subject, those are called passible qualities. For although according to natural substance or subsistence in the first complexions paleness or blackness has been made in someone, nevertheless they are called passible qualities according to the first account of quality: for we are called qualified according to such colors or qualities, whether such things have been induced by accident, as on account of a long illness which causes paleness. Or on account of heat which induces redness which sometimes burns the blood in the face, so that it remains, and induces a standing and permanent redness, or something similar to these: on account of which blackness or paleness happens, it does not easily pass away, so that it remains immutable or difficult to change. These are called passible qualities: for according to such qualities we are called qualified simply, just as according to those which are induced by natural passions.

But whatever are of the number of such qualities which quickly pass away and are quickly

and easily dissolved, are called passions: for according to these we are not called qualified, but rather as having suffered something: for no one is simply called red because he has been made red out of shame. Similarly he to whom a sudden paleness comes on account of fear, is not simply called pale or qualified according to paleness, but rather it is said conveniently that he has suffered something, not towards denomination, but towards sudden mutation. For that reason such sudden mutations are conveniently called passions: but they are not conveniently called qualities, because we are not simply called qualified according to them.

This, therefore, is how it stands concerning the passions and passible qualities of the body. In the likeness of these it also holds concerning the passions and passible qualities which are induced according to

accidents of the soul, that is, whose principle is in the soul, although the mutation is in the body: for whatever of such things are made presently or suddenly in being born, are made suddenly from some adventitious passions, such as dementia or insanity, or anger, and other passions of this sort, if they are called qualities inferred through sense and phantasy or opinion: for according to such things we are called and denominated qualified, for we are called irascible and demented and insane. But similarly it is if whatever alienations and insanities have not been naturally made, but are induced by some accidents, as from sight, or the terror of sounds

or things similar to these, and are difficully passing away or even altogether immobile: all such things are to be called passible qualities, in that according to such qualities we are called and denominated qualified. But whatever of such passions are from those which pass away more quickly and easily leave the subject, are called passions and not passible qualities.

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### CHAPTER VII.

### *On doubts concerning the third species of quality.*

Now there is a doubt concerning those things which have been said. For passion per se is a most general genus, and therefore it does not seem to be able to be a species of quality.

Furthermore, passible is potent to suffer or having an aptitude to suffer: but no quality can suffer, but according to it there is passion: therefore it seems that there is no passible quality.

Furthermore, either passion induces the quality of color, or if it does not induce it, then the passion alone remains, and it does not have to be determined in quality: but if it induces it, it is certain that that color is a quality, and thus passion is a passible quality, and thus the distinction is badly made between passion and passible quality.

Furthermore, according to a passion someone seems to be called qualified: for this passion is in some genus, it is certain that in no other than the genus of quality: but quality is according to

which we are called qualified: therefore according to passion we are called qualified, and thus there is no distinction induced between passion and passible quality.

Furthermore there is a doubt concerning this that whiteness and blackness are not called qualities, in that they infer passions to the senses: for these are the objects of sight: but sight is a passive potency: therefore the object which is the proper agent into sight infers a passion to sight, and according to this colors are called passible qualities, just as others, and from a similar cause, as it seems.

Furthermore, these passions are called inferring or inferred: but colors often infer passions, such as concupiscences, and delectations, and sadnesses, and the like: and thus again it is clear, that sensible qualities are from the same cause by which other sensible things are called passible qualities.

Furthermore it is asked why the third species of quality is not called form or figure constant about something? The termination of substance is according to quality: but passion and passible quality are born from an accident of passion, and thus the fourth species seems to be nearer to substance than passion or passible quality: therefore this is not the third, but the fourth (as it seems) species of quality.

Furthermore it is asked why this species is not named by one name, since all the Ancients and even Aristotle called them by the common name of accident?

To these and similar things it must be said, that passion according as it is a predicament, is the effect and illation of actio-

towards that which suffers: and thus passion is not taken as the species of quality, but for the form of quality which affects the subject from the fact that it has suffered something, which is the cause of that affection, or from the fact that it induces a passion in the affected subject from the affection itself, which contains the subject according to the things complexing or composing the subject, just as anger induced by something surrounding inflames the blood around the heart and mixes the vapor of bile for the appetite of vengeance. And therefore there is an equivocation in passion, which according to what is the effect of an agent is a genus: but according to what is an affection made by commotion or inducing commotion, it is a species of quality.

To the other thing, it must be said that it is not called a passible quality because the quality itself suffers anything, but (as has been said) because it is either induced by passion or induces passion, and because it is thus joined to passion as cause or effect, therefore it is called passible quality.

To the other thing, it must be said that passion induces that which is a quality according to essence: but it is not a quality according as a qualified thing is called from it denominatively, because denominations are not unless from those things which are present simply: but what is not rooted and fixed in the subject is not present simply, because ainsi it does not follow: "this

one is affected by redness from shame, therefore he is red."

And through this the solution to the following is clear: for that which is induced from passion is in the genus of quality, but not according as it is qualified simply, but according to this it is predicated denominatively.

To that, however, which is further doubted concerning whiteness and blackness, it has been sufficiently answered in the preceding chapter. And as to what is said, that they bring passions to the sight, it must be said that those are passions according to something and not simply: because such things are in the sight according to spiritual being, and therefore they do not simply induce motion and passion.

To that, however, which is objected, that they induce delights and concupiscentias, it must be said that this is by accident, for they do not do this insofar as they are visible things only, but insofar as they are signs of delightful things according to taste and according to touch: for delight is in the sight according to something and not simply according as the sight is moved by the visible thing only.

To that, however, which is further asked concerning the order of these species of quality, it must be said that the order of the first species to the second is that which has been determined in the preceding matters. But because among the number of natural powers are the sensible forces of the soul, and passions are brought to these through passible qualities, therefore it was

necessary that the third species of quality immediately be passion or passible quality, just as the proper active follows its own proper passive which brings passion to it: because the active gives its own proper form to the passive, and each is referred to the other and known through the other: on account of which the third follows immediately after the second. Furthermore, when it is objected that according to this also the third ought to be the fourth, because acts are prior to powers according to reason and objects to acts, it must be said to this that this would be true, unless natural power were taken here according as it is rooted in the substantial principles of the substance: for according to this this accident is determined, according as it is closer to the substance, and therefore according to this order natural power is before passible quality.

To that, however, which is last asked concerning the name, it must be said that we intend here concerning quality according as a qualified thing is called from it denominatively: and therefore quality here is not intended in comparison to the cause through which it is induced, but rather according to the mode by which it adheres to the subject for the denomination through "qualified": but "chance" is not called a quality here, except in comparison to the cause through which it is induced, because it is casual. These therefore chance not-

called. But according to that which is in the subject, it does not have one mode, but a diverse and composite one according as it denominates

the subject simply, and according to something, that is, as of now. But opposite modes cannot be comprehended by the same name. Therefore it could not be conveniently named by one name, but by two, which are passion and passible quality.

## CHAPTER VIII.

On the fourth genus of quality which is form, or figure placed around something constant.

The fourth genus of quality is form and figure placed around something constant. But this genus of quality, as Aristotle says in the First Philosophy, is a consequence of the substantial species in every corporeal substance: because just as corporeal substances differ in species, so they differ in figures: and those whose species is one in common, of these the figure is one in common, as much in the whole as in the members: just as the figure of man is one, and of a goat, of an ass, and so of others. Perhaps this is called a genus and not a species, because it comprehends very many things.

But these differ, because the mode of termination of lines in a surface or body can be referred to within, namely to the substantial form, which both in the whole and in the parts is the cause why it is said either that this or that is a member, or even that the whole is formed, and thus it will be called form. [If it is referred to] the position, namely, thus or thus terminated in such or such angles, it is thus called figure. Whence it is clear that one and the same thing according to that

which is quality is figure and form, but it differs according to being: because that which is referred within, which contains and terminates, is form: but that which is referred without, by which, being terminated in such or such angles, it is apt for these movements or those according to these acts or others, is thus called figure.

But it is necessary to know that figure is spoken of in two ways: according to that which is terminated quantity, and thus it is called that which is in the genus of quantity: there is also figure according to that by which figure is the termination of quantity, and in this way it does not speak except of that which is in the genus of quality, but this quality is placed around quantity. But form, although it be the same in subject, yet differs in reason, nor is it called form except according as it is caused by a substantial form in act containing the intrinsic things, and therefore form speaks of that which is of quality, and not of quantity.

But these are therefore called a genus, because they do not agree in acts and reason: for to contain, which belongs to form, does not agree except in genus with being thus or thus angled with an acute or right or obtuse angle: for this is not said because it contains, but because it pricks or touches in this or that way, on account of which there is not an agreement of species but of genus between those things thus taken. Yet because these are one in that which is form and figure, for this reason they are joined not by a disjunctive conjunction. But it is named in two ways

and not in one: because to contain within, and thus or thus to prick without, are not reducible into one property to which one common name may be imposed.

But it is called figure, for the reason that it is referred to the outside: placed around something constant, because in the exterior terminations of lines it concludes and terminates exteriorly in a circuit, and its terminations are constant at the points in which the terminated lines meet. This therefore is the account of all these. But these are properly of bodies and of surfaces which are terminated by many lines.

Furthermore yet in lines also certain things are found which are to be placed in this mode of quality, such as straightness and curvature: for the straight is that whose extremes cover the middle, so that afterwards they cannot be seen, if the extremities of the straight things are directly opposed to the sights of the eyes: and this is a saying of Plato. This however is more a form than a figure, although it has the account of a figure according as to the outside

is terminated everywhere in one point. But curvature is always composed out of two forms: for it has a concave form underneath, and it has a convex form exteriorly, and therefore everything curved is of a composite form. But it has as many figures, as it has curvatures, because it has so many terminations to divided angles. Such a thing also is what is similar to these, as circular, or spherical, and generally speaking round: for all these have the form of a concave to the interior,

and the figure of a convex to the exterior. But that these are qualities according as they are forms and figures of such things, is proved from this that according to each of such things that is called qualified which is informed from these, just as is clear by induction and example: for to be triangular or quadrangular or round is called a qualified something. Similarly also to be straight or curved has the predication of qualified. And it is similar in others called according to form or figure in this way [1].

But rare and thick and rough and smooth will perhaps be thought among some to signify qualities principally: although from a line they have towards this that they principally signify a quality: for they primarily signify position, and secondarily the quality of the parts posited in place and in the whole, and therefore they do not pertain to the division of those in which are posited those things which are principally in quality: for these (as was said) primarily and principally signify in a certain way a certain position of parts in the whole and in place and not a quality: for it is called thick or dense, in that its material parts are mutually near in position: but rare is called through the opposite, in that its material parts are mutually distant in the whole: and these two are thus so called according to the position of intrinsic parts. But smooth and rough according to a certain position of exterior parts: smooth indeed in that its exterior parts lie for themselves in a straight line or equally according to a li-

-ne or a surface and one does not project above another: but rough is called through the opposite of this, for the reason that indeed one of the extreme parts in an upper line or surface is stretched out projecting over another, but another is lower and at the same time is depressed under another. Therefore they are called positions firstly, and if they are called qualities, this is secondarily. Therefore these are the four species of quality which are commonly found.

And perhaps certain other modes of qualities will appear: because qualified is said in multiple ways concerning substantial and accidental quality, and therefore many are of the same mode: but because those modes which have been said are maximally and principally called qualities and qualified, therefore let it be concluded generally that the species or genera of qualities are those which have been said before.

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### CHAPTER IX.

*On doubts which concern the fourth species of quality.*

Now there is a doubt in these things, since form is the principle of the substance of each thing, how it can be a species of quality: for rather it is to be reduced to the genus of substance, than of quality.

Furthermore since figure is of mathematical things, but nothing is mathematical except discrete or continuous quantity: figure seems to be

something in the genus of quantity and not of quality.

Furthermore form or figure seems to add no being over quantity, because that lines be thus joined into an acute or right angle, does not add being to the quantum but reason: and thus it seems that they are not species in the genus of quality.

Furthermore what was said concerning rough and smooth, altogether contradicts that which was said in the six principles concerning site or position, where it is said that rough and smooth,

and rare and dense, do not speak of positions but of qualities spoken of around positions.

Furthermore it is asked how the number of species of quality is received?

But to these and similar things it must be said that form is spoken of according to that which is form according to reason and substance: and thus form is the principle of being and of substance in everything which is: and because substance is true, for this reason form is the principle of being and of true substance, and according to something it is the principle of others by which each one of them is. For it is called form as if remaining without (foris manens) according to the name, and thus the mode of containment in the termination of lines and surfaces is called form, and this form is a species of quality.

But to that which is objected concerning mathematics, it must be said, that figure is not mathematical by reason of figure, but by reason of quantity whose quality it is, and it cannot

be absolved from it. Or it can be said, as was said, that figure is mathematical according as it is terminated quantity: but according as it is the termination of a quantum, thus it is quality, and in this way it is not considered by the mathematician.

But to that which is said, that figure adds nothing above quantity, it must be said that it is false: for it adds a mode of quality which is not quantity, which is acute, or right, or obtuse in angles, or round, or flat: which are not reasons only, but are things: whence also in different ways they transmute the proper sense of touch: but every transmutation of a proper sense is through quality.

But to that which is objected from the Six Principles, it must be said that as was said, rough and smooth, and dense and rare, speak of positions of the parts of matter interiorly and exteriorly, but secondarily they speak of qualities: because in this or that way they act upon the sense, and this is considered in the book of the Six Principles; and therefore they are called qualities, because the smooth is that which smoothly transmutes, the rough that which transmutes with a pricking, and the dense is that which is not penetrated by sight, but the rare that which is everywhere pervious: and therefore in comparison to the sense they are thus called qualities, but yet because position is the cause that in this or that way they transmute these senses, therefore those are principally positions, secondarily qualities.

But to that which is asked, in respect to what these species of quality are received, it must be said that number and order can be received together thus: for either it is received in respect to the formal principle of substance, or in respect to the material, from which every accident has to be received in respect to the mode of the substance from which it is caused. But if it is received in respect to the formal principle, this cannot be except in two ways: for either it is received in respect to the mode by which the form perfects the matter, or in respect to the mode by which the form is the principle of acting in the composite which is perfected. If in the first way, the form does not have itself to the matter except as a disposition or habit, and in respect to this mode the first species of quality is received. But if it is in the second way, from the form flow the natural powers, and thus the second species of quality is received. Those powers therefore are either received in themselves or according as their own actives induce their own passions in them. And in the first way it is again the second species of quality: but in the second way the third species of quality is induced. If however it be taken from the part of the matter which is per se corporeal, and it is necessary that it be according to the relation to the form which contains and terminates the matter, then the fourth species is induced, which is form or figure placed around something constant. And these are the four species of quality, according to which something is most frequently called qualified, and from which this mode of the

predicament which is proper to quality is properly received. But if any other modes of quality are found, they are easily reduced to these.

It must be known that the Ancients called this last species of quality by one common name, composition: but because it includes two acts, one towards the inside which is of form, the other towards the outside which is of fi-

-gure, therefore it is named by two convenient modes. Why also it is better called a genus than a species, has already been said in the preceding chapter.

But as for some receiving these species in respect to those things which are in us in the soul, some [receiving] the first species through acquisition, and according to those things which are in nature according to species, and in the body indeed the third species through motion, or the fourth species through the limit of matter: anyone who wishes can say it, but he does not seem to have a perfect reason.

But concerning this it can be asked, why according to only the third species of quality, which is passion or passible quality, is there a preceding alteration, as Aristotle says[1], and not according to another species of quality? And this indeed, although it pertains to the Philosopher to determine and not to the logician, yet it can be said that in habit and disposition there cannot be alteration: because disposition and habit are towards perfection according to the act of their own nature, which is reason or an act of reason: and therefore that which reaches a perfect being

is not properly altered physically, but is perfected in its connatural and proper being. Almost for the same reason there cannot be alteration in the second species: for natural powers are rooted in the substantial form, according as it, in that which is perfect, is converted into a principle of acting, and therefore they follow the perfect being just as that which is a consequent substantial being, since its perfection is a perfection in those: on account of which also that which reaches the perfect being of a natural power is perfected, and that which is diminished from it is corrupted according to being or in the way of corruption. In the fourth species also there cannot be motion, because it is a quality around quantity which is not absolved from quantity: but to quantity nothing is contrary, so that to that species also nothing is contrary.

And if it is objected concerning straight and curved, and rough and smooth, and rare and dense, it is clear that those qualities are neither active nor passive, nor are they absolved from position and site, and therefore in such things there cannot be a motion of alteration: because physical alteration is not except between contrary agents and patients towards each other, and this is what Aristotle intends, if anyone should well inspect his sayings.

## CHAPTER X.

On the qualified which is spoken of according to quality.

But because, as Alexander says, Aristotle himself entitled this treatise on the qualified and quality, and we have already determined concerning the species of quality according to which we are called qualified, it remains now to determine concerning the qualified which is spoken of denominatively from these species of quality. We say therefore that qualified things are called those which according to the said qualities are spoken of denominatively: denominatively, however, because the subject is simply denominated from them, or in whatever other way they are said to be informed from these. For it is difficult for that denomination which is from an accident to be made simply: for an accident is in many ways, so that it does not denominate, as if it is in according to a part, as an Ethiopian is white in teeth, or if it is in as of now and not simply, as one who is red from shame now, it does not follow that he is red. Although sometimes this is also on the part of the accident, that a denomination cannot be made from it, although it be in simply and not according to something, as will be clear in the following things. And therefore the qualified according to these species of quality (whether it be spoken of according to that denomination or in whatever other way it be spoken of from these) is called quality as informing the subject, signifying through concretion: for qualified and quality are predicated of the same thing, although they differ in mode:

for the qualified speaks of quality informing a subject, but quality speaks of quality simply.

And if anyone should object that the qualified speaks of two things, namely, a subject and a quality, it must be said that it does not speak principally and formally except of quality, but because it speaks of quality in concretion with the subject, therefore it is said to make a signification concerning the subject as a consequence. On account of which also the qualified with quality pertains to the same predicament.

In more qualities, however, indeed in almost all, qualified things are spoken of denominatively from qualities, as from whiteness white, and from grammar a grammarian, and from justice a just man is called denominatively, and similarly in many others. In some, however, this does not agree according to the voice, although it be similar according to being. And the cause of this is that such names have not been placed for qualities which, differing only in case according to appellation, could be inflected and informed into denominative names, as it is called a runner (cursor), or as it is called a boxer (pugillator), not indeed called from the act or office of running or boxing, but from the quality itself which is a natural power of doing this: for this quality has not been designated by its own name, so that the name according to natural health for exercising these things might signify that proper quality: for names have not been placed for such healths (which are a quality) according to which they are called qualified both as a runner and a boxer or pugilist: but those names are the names of disciplines, such as of the runner's and the

boxer's art: and these are not the names of that quality or those qualities, by which those qualified are called, who are affected by that quality, which is a natural power for doing those things. But from the name of the art or discipline he can be denominated, who is ignorant of that art or discipline, as it frequently happens, that one having the natural power for something of an art, is ignorant of that [art], which teaches the same operation for which one has a natural power: for the boxing [art] is called the discipline of boxing, but those are called qualified in this quality, not who are of that art or discipline, but who are affected through information by the quality which is called natural power for fighting, just as he is called a boxer or a runner who perhaps knew nothing of that art or discipline, and therefore they do not receive a denomination from the discipline so that they be called runners or boxers.

Others, however, even with the name of the quality placed, are not yet called qualified by that quality denominatively, so that the name of the qualified according to the figure of appellation is determined from the name of the quality. Just as is clear in the name which is virtue, from which name if a denomination be made he is not called virtuous (virtuosus), but according to others he is called studious (studiosus), by a name formed from the genus of virtue which is study, or what is truer by a name formed from the cause of virtue, which is study. And according to later ones he is called virtuous, although it does not speak of a simple denomination, but with the denom-

ination, it notes fullness. For one having virtue is called studious, but he is not called denominatively by a simple denomination from virtue: but if he be spoken of from virtue, he will be called virtuous, which name signifies fullness and does not make a simple denomination. But the cause of this is, because in political virtues and vices we are the masters and cause of the works by which virtues are effected: because virtues are made in us through study: which study, as Tully says, is a vehement application of the mind to something to be learned or done: therefore the Ancients imposing names, called those virtuous in intellectual or moral or heroic virtue, studious by a common name. But they are called virtuous not so conveniently, because virtue names the ultimate in good, as Aristotle says, and this is not so general as the first. But the consignified fullness is joined in such things, on account of this which Aristotle says, that neither can intellectual virtue which is prudence exist without the moral ones, nor can the moral ones exist without prudence: because the moral one reaches the end, but prudence chooses those things, and

teaches through what things and in what way one comes to the end: and therefore in whomsoever there is virtue, there must be a certain fullness of virtue. On account of which it was convenient for that denomination to be formed by a name connoting fullness. And it is called studious (studiosus) and not studialis, and virtuous (virtuosus) and not virtualis. In more denominatives it is not so, but their denominatives are

formed from the names of the qualities which are in them. It is concluded therefore generally that whatever things are called qualified, either are called denominatively from the aforesaid four species of quality, or in some way, as was said, they are called otherwise from those qualities which have been mentioned.

## CHAPTER XI

*On the property of quality which is to receive a contrary.*

But after it has already been determined concerning the qualified and quality according to definition and division into species, consequently it must be determined concerning the qualified and quality according to their consequent properties and passions, and first concerning the property which agrees neither to the only nor to all, which is for there to be contrariety to quality. We say therefore that contrariety is in quality and in the qualified according as it is qualified, just as justice is contrary to injustice, and whiteness to blackness. Although injustice has the name of a privation, yet this privation is founded in a contrary habit whose proper name has not been placed, and thus justice is contrary to injustice. So also those very things which according to these qualities are called qualified, are contrary, as the unjust is contrary to the just, and the white to the black. It is clear therefore that in the first and third species of quality there is contrariety. But this is not a property in all qualities of the first and third species, according as contrariety is the

distance and complete opposition of those things which are in the same genus: for to red or pale or colors of this sort, which are in the middle, nothing is contrary, although nevertheless they are qualities and in the genus of quality.

But if it is objected that justice and injustice are not contraries, because the motion of alteration is between contraries: but in the first species, as has already been held before, there is no alteration. We shall say to this, that physical alteration is not in the first species of quality: but alteration broadly spoken of is in the first species, according as it is alteration, when, while the same subject remains, a change is made in its passions or qualities. For thus when from just one becomes unjust, an alteration has been made: for it does not suffice for a physical alteration that it be between contraries, but with this it is required that the contraries be mutually active and passive according to action and passion casting away from the substance, and continuously transmuting the subject from contrary to contrary.

But as to that which we said, that to the middle colors nothing is contrary, although nevertheless in the fifth of the Physics [1] it is said that the middle compared to the extreme is a contrary, and although in the Ethics it is said that the middle is contrary to both of the extremes: no one ought to insist, because here we receive the contrary which is contrary according to the greatest distance. This however is simple, having nothing of the contrary mixed in: and according to this mode the middle is opposed neither to

the middle nor to the extreme. But in physics contraries are to be received according to power and act where there is motion, and therefore there a contrary is that which participates in something of the contrary, and is in power towards the other, for according to this it is moved towards it as towards a contrary.

But that which is said in the Ethics, that the middle is contrary to both of the extremes, was therefore said because although virtue is a middle as to act and circumstances, yet according to the good and the account of the good it is an extreme: and thus to both

is opposed to the extremes as an extreme, because thus both extremes are in the genus of evil.

Furthermore, it is generally true that if one of the contraries is qualified (quale), the other contrary to it is also qualified: since contraries are in the same genus. But this is open and manifest to one proposing or inducing other contraries from those which have been said in individual genera receiving contraries: for contraries are always in the same genus: for if justice is contrary to injustice, and justice is a certain qualified thing or a quality, it follows that injustice also is a qualified thing and is a certain quality: for injustice can be fitted to none of the other predicaments as a genus, as a species or an individual: for justice is neither quantity, nor relative, nor where, nor at all or universally anything from the number of the predicaments, except qualified thing and quality, and that same thing according to the genus of the predicament is also justice. And thus

it is in all other contraries which are according to the qualified or according to quality.

But from this perhaps it will seem to someone that the first contraries are in quality: and against this it seems that the first contraries seem to be rare and dense: for these seem to precede hot and cold, and to induce them, because the rare is made hot, and the thick is made cold: but to this it must be said that in truth the first contraries are truly contraries in quality according to action and passion, and not in position [1]: because it is for contraries to mutually expel each other from the same susceptible: but this expulsion cannot be made except through action and passion, and therefore those things which are truly contraries are mutually active and passive: and these first contraries are hot and cold, and their passive subjects are moist and dry, each of which regards both of those as a subject: for the moist is the subject of the hot and is the subject of the cold, and the dry is the subject of the hot and is the subject of the cold in elemental matter: the hot is effective of the rare, and the cold is effective of the thick: and thus the first contrariety simply is in quality: but the first disposition of matter is in position, which is not resolved from the quality which is the rare and the dense.

But if someone should say that the light and the heavy are the first contraries, because the local motions upward and downward are towards form: for the light is moved upward, but the heavy downward, this is altogether nothing, and it is determined in physics that upward motion is

not caused by lightness, nor downward motion by heaviness, but rather by the generator or by the one removing the obstacle: and therefore it first has the form of the generator in some way before it has the motion which is consequent upon the form of the generator [2]. And therefore the light and the heavy are not the first moving contraries, but rather the light is caused in matter through the rare, and the heavy is caused in matter through the dense: and thus it still remains that the hot and the cold, which are in the third species of quality, are contraries.

But if someone should still object, and say against this, that if simply hot and simply cold, neither of which has anything of its contrary mixed in, are the first contraries, then it follows that they are born to happen about one and the same subject: but simply hot and simply cold are not born to happen about the same thing: for there is no element which, remaining in the substance of the same element, is born to receive this: therefore those are not the first contraries, for fire has unmixed heat, and cannot have coldness and heat: to this it must be said that according as heat and coldness are the first qualities, they are thus opposed about the first matter of the elements, and about it they are born to happen: but according as they are in the ge-

generated first things which are elements, they are thus natural powers consequent upon the being of the elements, and therefore while the elements remain they do not desert the substances of the elements: and in this way they are

born to happen about the same thing, and mutually expelling each other from the same.

But from this, that the first contrariety is in quality, it is understood that contrariety in all other genera in which it is, is only in the account of quality: for the first is the cause of all others in whatever genus in which it is the first. Whence also in quantity, by reason of the motion of increase and decrease, there is no contrariety except according to quality, as was said in the treatise on *Quantity*. And if there are contraries in where or in position, it must be that they are in them according as they are not resolved from quality. But the disputation concerning these belongs to the physicist or the metaphysician, and not to the logician: for the logician does not consider contraries except according as they are at the greatest distance in the same genus, and he does not consider them according as they are first and not first.

## CHAPTER XII.

*On the second property which is to receive more and less.*

Quality however receives more and less, and this is the second property caused from that which preceded. But that the qualified receives more and less is clear by induction: for one thing is called more and less white than another according to the intension and remission of whiteness, and similarly one thing is called more and less just than another according to the intension and remission of justice. But this is not only

in those very things which are qualified, such as white and just, but even those very things which are qualities (from which such things are called qualified) receive it in themselves, as they are called increases and decreases in themselves. And Boethius says that this was the opinion of Plato. But this is declared by an example, when, as they say, that which is bright (candidum), which is brightness (candor), is bright, it happens, as they say, that that brightness is more intended through a greater (as Nicolaus the Peripatetic says) admixture of the contrary light.

But although this is a certain property of quality, yet it does not agree to every quality, but there are many things which receive more and less, and not all things which are qualities: for since justice is a quality, if it is said (according as it is signified in the abstract) to receive more and less, anyone can doubt whether what is said is true or false. But similarly it is also in other qualities which affect by inherence the subjects in which they are, when they are signified by the mode of abstraction, as justice, whiteness, health and such like. For some doubt about such things, whether they receive more and less: for some say that justice is not much called more and less from justice, and whiteness from whiteness, so that one justice is more justice than another, or one whiteness more whiteness than another: nor do they say one health is called more and less from another health. And the cause of this saying is that the name of each of the abstracts is imposed in a limit, and cannot be intended and remit-

ted: but these say that intension and remission according to more and less happens to qualities according as they are in the subject receiving those qualities: for they say that one has more and less health and justice than another, according as we call one healthier and juster than the other. Thus also they say that grammar and other qualities (which affect the subjects in which they are, and therefore are generally called affections) are in them according to more and less. Although however the Ancients feel differently about these things, yet this is indubitably true, that the subjects (which according to those affections of qualities are called qualified) undoubtedly receive more and less according to certain qualities, both in the first and in the third species of quality: for in this way one is sa-

id to be more a grammarian, who has more of grammar: and thus one is called more just and healthier, and thus it is in many other qualities of the first and third species. But this is not in the fourth species of quality: for triangle and quadrangle, according as they are called denominatively from triangulation and quadrangulation, are thus called qualified and not qualities: and thus spoken of, triangle and quadrangle do not seem to receive more and less, nor anything denominated from other figures, as a circle, or a pentagon, or a hexagon: for these are not said according to predication except of those things which receive their definition: but all these are in a limit: whence all things of which circle is predicated by name and account of quality, are

and are called circle equally and not according to more and less. But those things which are of the number of those which do not receive the name and account of a circle, in as much as they are not a circle, circle is denied in them equally and not according to more and less. But this is clear through examples: for a square and a quadrangle do not receive the name and account of a circle, but a circle is denied by both, and therefore a square is not more and less a circle than a quadrangle. For a square is a figure enclosed by four equal lines and four right angles. And a quadrangle is a figure contained by four right lines, of which two opposite ones are equal to each other, the others not opposite being unequal, and four right angles. And neither of these receives the name of a circle. Because a circle is a plane figure contained by one line, in the middle of which is a point which is called the center, from which all straight lines drawn to the circumference are equal. And this account agrees neither to a square nor to a quadrangle, which is longer on one part. And therefore equally and not according to more and less square and quadrangle are not a circle, for none of such figures receives the definitive account of a circle.

But speaking simply or universally, if both of these in no way receive this sort of thing which has been proposed, that is, the account of a circle according to some mode, then it follows that one of these is not said to be more and less a circle: because that which is not said to be or not to be according to more and less, in some way partic-

ipates in the name and account of that which it participates in according to more and less. It is concluded therefore that not all qualified things receive more and less. Therefore of these aforesaid properties, none is properly a property of quality: for neither of them agrees to all and only and always.

But it must be attended to that, as Boethius says, taking it from Alexander in the commentary on the book of the Categories, there were three sects of the Ancients about this. For Plato, who posited forms, said that intension and remission happen in qualities especially of the first species, such as about habits and dispositions, which he said were gifts of the gods, as is expressly read in the book which is ascribed to Meno, through the immission of divine good more and more, just as whiteness is more and more whiteness, into which more and more of the clarity of light is immitted, and thus he said all virtues are intended. But some others, the Epicureans, said that intension happens through the increases of the parts of the subject, so that whiteness or justice becomes more and less, which occupies and informs more and less of the parts of the subject. But the middle opinion of Aristotle and the Peripatetics is that intension happens about quality according to inherence. Quality inheres in a subject in two ways: on the part of the subject and on the part of the quality. On the part of the subject indeed from this, that it is more and less adapted to receiving the quality. But on the part of the quality in two ways: for if it has a contrary,

then it is more and less intended according to a greater and lesser admixture of the contrary: but if it does not have a contrary, then it is more intended according to a greater or lesser access to the limit of nature, to which the name is imposed and from which the name is imposed: and this is to say to the true impo-

sition. But the position of Plato does not have to be proved or disproved here, but in First Philosophy. But here it can be said, that if intension in quality were made by the addition of a divine gift, it would be very difficult to say how that which is a simple form is to be added to it, unless it were said to be made by the addition of another form of the same species: and this is prohibited by many philosophers, that multiple forms of the same species are not in the same subject. But if intension were made through the occupation of the parts of the subject, it would follow that the same subject in the same part would not be more and less such, which is against sense. It remains therefore that intension is made through access to the term of nature in a subject more and less disposed to the form. These things, therefore, have been said concerning the properties of quality.

### CHAPTER XIII. — On the third property of quality which is similar and dissimilar.

But it is a property of quality that according to it alone something is called similar or dissimilar. For nothing is said to be similar to another, except according as it is qualified (quale): and according to this alone is it called dissimilar. For

similarity is unity in quality, as equality is unity in quantity, and identity is unity in substance.

But that this is a property of quality is clear: because not according to anything else, such as according to quantity, do we call something similar to another, but we call it equal or unequal: but according to substance, we do not call something similar, but the same. But similarly it is in all other predicaments.

But then it seems this is not a property, because similarity is in Relation (ad aliquid), and thus it is not a property of quality. To this it must be said that just as identity and equality, so similarity is founded upon a thing of another predicament, and according to that thing it is said properly, but according to relation it is said relatively.

But if it should be objected concerning those things which in other predicaments are called similar, as two similar genera, or two similar species: It must be said that genus and species are not called similar except according to essential qualities which are differences. But if it should be said that neither genus nor species is predicated in the 'of what sort' (in quale), but in the 'what' (in quid), it must be said that they do not have being predicated in the 'what' insofar as they are forms, but insofar as they are formal or formed through a constitutive difference which is a form. That wh-

have similarities of species or individuals, they have [them] insofar as they are forms and

essential qualities of species or individuals. This therefore is properly a property.

### CHAPTER XIV. — On the exclusion of the error which could happen from this, that qualities are said to be in Relative (ad aliquid).

But there are some who think that the predicament Relation and Quality are not distinct: because certain things placed in Relation, such as knowledge and virtue, seem to be in Quality. For habit and disposition are said [to be] relative to something, and they are the first species of quality. To this it must be said that knowledge as knowledge is relative, but as it is a certain habit and affection, it is in Quality. And it is in the same way concerning virtue.

But it must be attended to that if the same thing agrees to both predicaments, it is not necessary on this account that the predicaments be confused. For knowledge insofar as it is a habit, is a quality: but insofar as it is the knowledge of a knowable thing, it is in Relation. Similarly virtue, insofar as it is a certain habit, is a quality: but insofar as it is the virtue of someone or towards something, it is in that which is Relation. And thus it is in others.

Whence if someone should say that virtue or knowledge are not in Quality because they are in Relation, he is deceived: because they are not in both according to the same account. For according as it is a habit and disposition, it is in Quality: but as it is a discipline (teaching), it is in that which is Relation. And similarly white, through this that it speaks of a subject, is in Substance:

but through this that it speaks of the subject as qualified (quale), it is in Quality. These things therefore have been said concerning qualified thing and quality.

### CHAPTER I — On acting and suffering.

Having the four voices signifying the four genera of things, in which Substance predicates that which is simply being and through itself, Quantity predicates being in another through which it is subjected and stands under many other accidents, and also motion, because it is not the simple substance that is subjected to it but the quantified substance: and to all those things which speak of forms which are greater in greater quantity and smaller in smaller quantity, as are all active and passive qualities, through this it is subjected to motion and change, because matter determined by quantity is subjected to those: on account of which also quantity has an account separate from the physical, and is according to the account before it, just as the metaphysical is before the physical. Relative (ad aliquid) however predicates that which is compared to something, which mode is mixed in all six predicaments, and therefore it ought to have been placed before the others as a principle. Quality and qualified things have also been had, which also have a general mode of predicating in the 'of what sort' (quale), which in some way is in all others. For that reason also it ought to have been placed before, so that here substance might precede as the subject of all, quantity as the subject for the physical, relative however as a compared mode of the others,

but qualified thing and quality as giving the mode of predicating to all the remaining.

For it remains to speak of those things which do not have absolute things to predicate nor have a mode of predicating absolute from those: for they have the mode of relation and of quality, and they add something over both, through which they are made special predicaments. On account of which those six genera are caused by the other four which have been previously had, and they are not caused by them as inferiors are caused by superiors, because if it were so, they would be contained in them as in their genera, but they are caused from comparisons of the aforesaid genera to something else: although nevertheless they are not said to be reciprocal (ad convertentiam) according to the same or diverse cause. Just as action [is caused] from substantial or accidental form or quality compared to that which is subjected to the action. Passion [is caused] from the matter or subject which is subjected to the agent, and in accidental quality action is from natural power, passion from natural impotence. But 'When' is not from time, but from the adjacency of time. But 'Where' is not from place, but from the circumscription of place. But 'Position' is from parts compared among themselves and to the whole and in a place according to order. But 'Habit' is by the comparison of extrinsic things to the whole subject. Concerning all of which it is not necessary to make a great treatise here, because here we especially intend [to speak] of the four which are the cause of the other six, but

afterwards in another book the other six are to be treated. Among these the first is the predicament of Action, which is about 'doing' (facere): and because action is the power of the agent proceeding into the patient through an effect, therefore with this genus it is also necessary to determine about 'suffering' (pati).

It must be known that Aristotle in the sixth of the Ethics places a distinction between 'agere' and 'facere', and says that action (actio) is properly in human wills, such as are counse-

l, and to choose, to will and such like, of which prudence is the virtue: but 'doing' (facere) because the power of the efficient proceeds through an effect into the patient, as into extrinsic matter, such as is to cut, or to hew, or any of such things about which with certain reason there is mechanical art. But because we here consider only the mode of predication, here we generally intend concerning 'doing' or 'acting', as they commonly relate to both, namely acting and doing: and we say that every voice 'to act' or 'to do' predicates which signifies an active power to proceed into an effect from the agent into that which is subjected to the agent according to that power, such as is to understand, to cut, and to burn according to that whole mode by which it can signify according to its whole inflection, and according to every verbal mode of its own or even participial: because a participle also signifies with action and time, such as plowing, or cutting, or whatever such like having a similar signification of its predication: for this mode of signifying

a predicable thing cannot be reduced to any other predicament: conversely however passion, which is reception from the actor towards the simple reception of the agent's act, whether from this the patient is changed, as in a physical action the patient is changed into another as in physics, or it is not changed. But speaking logically, 'to suffer' (pati) is commonly taken insofar as it is a voice signifying a thing of a predicament, which is the reception of the agent's act simply insofar as it is receiving it only: for this mode can be reduced to no other predicament, and for that reason these two have been enumerated among the predicaments: because thus the first principles of things are said and predicated: for a principle is that in which the reduction of its coordination according to community is, and which can be reduced to none as a genus. Thus therefore, having taken that which is 'to act', there is a distinction in agents: because the power of the agent proceeding into an effect from itself, sometimes acts through itself, as the intelligence and the soul act. But sometimes the process is from it through an acting quality, as is to act by a heater or a cooler. And sometimes there is a process from this agent through an organ and instrument, as 'to cut' signifies acting, and 'to do' or 'to act' is commonly taken for all when it is a predicament. And similarly that which is 'to suffer' (pati) is conveniently signified by a verb, and not so conveniently by a noun: for it is better called 'to act' or 'to do' than 'action' or 'faction': and it is better called 'to suffer' than 'passion', because nomi-

nally they signify as in rest and without time, which does not agree with 'to act' and 'to suffer'. For these having been thus determined, it does not seem that anything else ought to be said here about acting and suffering, except that 'doing' and 'suffering' receive contrarieties, because they are caused by contrary powers: and because they receive contrariety, it is necessary that they also receive more and less, or intension and remission: because the actions and passions of contrary powers are contrary, just as 'to heat' is contrary to 'to cool', because hot is contrary to cold. And 'to moisten' is contrary to 'to dry', because moist is contrary to dry: and thus are 'to whiten' and 'to blacken', and the actions of all contraries are thus related to each other. And thus it is in the actions of the soul: because thus 'to delight' is contrary to 'to sadden', and therefore acting and suffering receive contrariety: because just as 'to heat' is contrary to 'to cool', so 'to be heated' is contrary to 'to be cooled', and thus 'to be delighted' is contrary to 'to be saddened', just as 'to delight' is to 'to sadden'. Because to receive a contrary is the cause of that which is to receive more and less, as has often been said, therefore these receive more and less; although they do not receive intension according to the degrees of operation, yet the acting itself and the suffering itself are things receiving more and less: and this intension is caused from the intension of power in acting and the intension of the passive power in suffering: and thus to heat is mo-

-more and less, and in passion 'to be saddened' and 'to be heated' is according to more and less. Therefore, 'to do' and 'to suffer' receive more and less.

But it was necessary to determine regarding these two together, because one is the cause of the other, and the other is the effect of it; yet that which predicates one of these is not contained under the other as under a genus. Therefore, regarding these two, only these things have been said as far as the present intention is concerned.

## CHAPTER II.

On the other four categories in common.

Regarding 'to be in a position' (situm esse) (that is, to be placed according to the order of parts towards each other both in the whole and in the place of the whole and the parts), it has been spoken of in those things which are relatives, and some are relations, while some are called denominatively from positions, such as rough and smooth, rare and dense, and whatever things of this sort signify the position of parts in the whole and in place.

But regarding the remaining categories, which are 'when' (quando), 'where' (ubi), and 'to have' (habere) (because they are manifest), nothing else ought to be said in this place than what was said at the beginning in the previous sections: namely, because each of them signifies one category in itself. For 'when' does not signify time, but the being of time according to some difference of time, as to have been yesterday, or to

be about to be tomorrow, or far from the present, or near, and from the past, similarly to have been once, or already, or a while ago, and something of this sort: for this category signifies none of the others. And it is similar concerning 'where', such as to be here, or to be in the forum, or in the theater, and things of this sort that have predication: for they signify thus: for 'where' is not place, but to be situated in a place in some way; and 'when' is not time, but to be in time; and therefore it must be a special category.

'To have', however, signifies the comparison of the one having to the surrounding habit, although 'to have' is said in many ways, as will be determined in the following parts of this book: for the category of that which is 'to have' says nothing except the relation to an external habit which changes itself to the figure and surrounding of the one having, and this is 'to have', as we say to have a garment either well or poorly for the necessity or grace of the one having. For thus it is a general term predicating being which is predicated in none of the others: and therefore here, according to the intention of this book, nothing else seems to be said about these than what was said at the beginning in the enumeration of the categories, namely that this 'to have' signifies and predicates being shod or being armed. 'Where' however predicates being in a place, 'when' even being yesterday or tomorrow or today, and certain other things which were said about these in the first part of this book, where the categories were enumerated.

Therefore, let those things that have been said about the proposed genera suffice. Furthermore, in the book of the Six Principles, we shall treat individually of those things which have not been treated here.

## CHAPTER I

*Which things and how many are to be treated in this treatise.*

Everything, therefore, having now been determined which seemed necessary to say about the categories, insofar as a category is a coordination under one common name of predicables. For not all things coordinated in any way are reduced to one genus: and therefore after the categories it was necessary for a treatise to follow concerning those things which indeed are to be coordinated, but cannot be reduced to one genus of category. And these are opposites, which are found in many genera, and those things which are prior and posterior, and those things which are simultaneous, and motion, and habit: for all these are such as to have coordinability with their names themselves, and yet they cannot be reduced to any one genus of category.

Concerning these five, therefore, it is necessary to make a special treatise according to how they pertain to the logician: for although opposites are in things and in beings which metaphysics considers, yet the opposition which is placed between them is of intention: and since intention expresses the account of a certain ordination, the logician must consider it. And it is

similar concerning those things which are simultaneous in all: those things indeed which are opposites by prior or posterior and simultaneous are in the nature of things; but the form and intention of opposition and priority and simultaneity is placed by reason. Motion, however, according to all its differences, is in nature. But the reduction to the universal and to the genus must be in reason, and therefore motion, since it is indeed predicable of many, must according to this be treated by the logician and according to the form of the coordination of predicables. There is, furthermore, still the coordination of that which is in with that in which it is, as the had in the haver: which, although on the part of the haver it is according to one genus, yet on the part of the had it is according to many modes not reducible to one and the same genus: and therefore it was also necessary to treat 'to have' according to the account of the coordination of that which is had to that which has it. And thus is completed every coordination of coordinables and predicables, which is followed by the act of reason, which is the composition of the predicable things about which it is predicated.

Now five coordinations of them are accepted, according to those things which are in many genera having one account in some mode of coordination: for these are either accepted according to the diversity of all genera, or according to those things which are contained in the genera, or according to the coordination of others to substance. If they are accepted according to the

diversity of all genera, since as Boethius says, opposition is the first cause of diversity, then there is opposition: because all diverse things through the division which is through opposites go out from some one thing, and opposition is the cause of diversity. If however the account of coordination is taken according to that which is in any genus, it is either taken according to the nature of those things which are ordained in the genus, or according to those in which the coordination stands and through which the division of coordinated things is made. And if it is taken in the first way, then since the ordained things in a genus are nothing but genus and species, the treatise is introduced concerning that

-which is prior and posterior: because the genus holds itself in the coordination as prior, and the species as posterior, and prior and posterior is the account of their coordination in one genus. If, however, it is taken according to those things in which the whole coordination stands, and through which the division of the coordinated things is made, then there will be a treatise concerning the simultaneous: because both individuals in which the coordination stands are simultaneous by nature, and the differences through which the division of the coordinated things is made, since they are opposites going out simultaneously from the same genus, are simultaneous by nature. Here, therefore, it must necessarily be treated concerning the simultaneous. Because, moreover, in every nature of any genus there is potency and act, and between

these in some way motion (and therefore motion also is in all genera), therefore it was also necessary to determine concerning that account of the coordination of predicables: and therefore it was necessary to treat of motion according to the commonality of motion which reason, coordinating predicables, places in motions towards one common thing which is found in many genera. If, however, it is according to the ordination of those genera to the first, which is also a coordination which reason places, thus it was necessary for the logician to treat of 'to have', and in these is the sufficiency of the coordination of predicables.

And through the division itself the order of these chapters is clear: because that which is taken according to the diversity of the genera themselves is prior to that which is taken according to those things which are in a genus: and thus opposition is before all other things. Furthermore, that which is in a genus according to the substance of its coordination is prior to that which is in a genus according to the reduction to the being of the genus: and thus prior and simultaneous are before the rest. Furthermore, that which is in a genus according to the reduction to the common thing which is this genus, or that, is before the reduction to the one which is having as a subject: and thus the chapter on motion is before the chapter on 'to have'. Therefore the sufficiency of the post-predicaments and their order towards each other is clear: because also prior is before simultaneous: because in coordination the coordinated things themselves are

prior according to reason than those in which the coordination stands: and concerning these, for this reason, what has been said must be treated.

## CHAPTER II

*On opposition in common and the genera of opposites.*

Among those things, therefore, opposition must first be treated, which is a form and intention of reason placed upon those things which are opposite: therefore, insofar as it stands over those things which are beings, it is in some way a form of being: insofar, however, as actual opposition is a comparison of reason, by which one of the opposites is compared to the other, then it is a form and intention which reaches even non-being, insofar as being is opposed to non-being both in contradictories and in privatively opposites, and also in contraries according to which contraries are reduced to privation and habit. For this is not inconvenient, that an intention or form which is potentially in things and actually in reason should be both of being and of non-being: because reason, comparing one to another, cannot make a comparison unless it looks at and stands in some way over both: and thus indeed opposition simply is a form of being, but in a certain respect it is also of non-being.

From these things it is also clear that opposition is in some way the form of one, and in some way of many: for it is of one insofar as one is considered opposite to another, but it is not a form which exists absolutely in one, that is, in one

apart from the other. Opposition is also of many, because we say that these or those are opposites, and this is because by the account of both opposites it is compared to the other and stands thus in the opposites: for in this way a form which is not absolute can be of many.

From these things it is also clear that opposition, insofar as it is opposition, is according to genus a relative (ad aliquid): although the species of opposition are not relatives except by means of the genus, that is, by reduplication to the genus, so that it may be said that contrariety, insofar as it is opposition, is a relative, according to what was said in the previous sections, that grammar insofar as it is a discipline is a relative, and not insofar as it is grammar or this science.

And if anyone should object that relation is a form of those things of which each is a being in act; whereas opposition can be of those things of which one is a non-being; and that therefore opposition is not a relation. Furthermore, because relation is according to one genus only, whereas opposition is in many genera, and that therefore opposition is not a relation.

It must be said that these arguments are not valid, because opposition, as was said before, is an intention which reason places over things: and therefore the relation which is placed there by reason is an intention, and such a relation is a relation of being which (as it is opposite and not as a thing) is in reason: and such being suffices for a relation which is placed over intentions. To the other point it must be said that although

relation is one genus, it does not therefore follow that relatives are in one genus in every way: for opposition is the distance of relatives from each other, and in this way it is in different categories. Thus, therefore, it is clear what opposition is: for it has this property, as Boethius says, that opposites cannot be simultaneously in one and the same: whence opposition is a repugnance or essential distance of certain things not permitting themselves to be in the same at the same time.

Now, therefore, it must be asked, according to the division of opposition, how often or in how many ways one thing is accustomed to be opposed to another. Now one thing is said to be opposed to another in four ways, that is, in one of four modes: for it is opposed either as a relative (ad aliquid), or as contraries, or as habit and privation, or as affirmation and negation. For opposition (which is a form of reason according to the intentions which are in reason, which looks to both being and non-being) is either between those things which are in act, or between those of which one is and the other is not. If indeed it is between those things which are in act, and which have the repugnance of opposition in their forms,

then they either expel each other from the same subject according to potency and act, or they expel each other according to act, but not according to potency. If in the first way: then it is opposition according to relative (ad aliquid), as is clear in father and son. For the same person, with respect to the same, is neither a father nor can be a son. If however they expel each other from

the same according to act, and not according to potency: then it is the opposition of contrariety. And these two, because they are over being, are to be pre-ordered to the other two oppositions: and because the opposition of relation expels the opposite according to act and potency, whereas contrariety expels only according to act, therefore the opposition of relation is placed before the opposition of contrariety. If however it is between being simply and non-being: then it is either between being simply and non-being in a certain respect, or between being simply and non-being simply. And in the first way indeed is the opposition between habit and privation, which although it deprives of the habit, nevertheless leaves the subject. And if it is in the second way: then it is the opposition between affirmation and negation, in which affirmation expresses being, negation however simply non-being, and they have an order according to whether they have more or less of being, and in this way privation and habit are before affirmation and negation.

Or if you please, it can be said that opposition is either between complexes or between incomplexes. If between complexes: then it is the opposition of condition. And because in this part complexes according to logicians are not intended except according to potency—for it is treated regarding those things orderable to complexity—for this reason the opposition of contradiction is placed last, as less intended. If however it is between incomplexes: it is either between those which are opposed according to form by reason

of the repugnance of forms, or by reason of the perfect according to form and the imperfect. If in the second way: then it is the opposition of privation and habit. If in the first way, it is either opposition according to forms which follow the form and the whole, or according to forms looking to matter, in which they occur according to the potency of matter towards both through motion and change. And in the first way indeed is the opposition to relative; in the second way however is the opposition which is contrariety. The division of opposition can also be taken in several other ways: and because this is very easy for anyone considering the natures of opposites, therefore we pass over it.

But so that those things may be declared individually through examples, each of these opposites is opposed, as a relative that which is half and double; as contraries however, as evil and good. For although evil, as Aristotle says in the third book of the Metaphysics, is the privation of good, yet according to that which is good in habits and acts they are contraries: because an evil habit is left from evil acts and is a certain quality in the soul, just as an evil act is a certain operation elicited from the soul, and thus evil is opposed contrarily to good, insofar as good is in opposite habits and acts to evil. And this is to take that which is evil, and that which is good: for if both of these are taken formally, namely whence evil, and whence good, then form both in the soul and in habit and in act, evil is opposed privatively to good both in the body and in the whole of

nature, as both Aristotle and Dionysius similarly prove: because even in the body evil is privation, and in the whole of nature there is nothing but privation: but this is not of the present intention, for it suffices that good and evil, according to that which they are, are contraries. According to privation however and habit they are opposed, as blindness is opposed to sight, for blindness is the privation of sight in that which is born to have sight. As affirmation however and negation they are opposed, as he sits, he does not sit: whatever affirmation affirms, negation denies, and conversely whatever negation denies, affirmation affirms. These therefore are the modes of opposition said figuratively and superficially.

But if it is asked what the division of opposition into four opposites is, it must be said that it is commonly called a division as of a genus into species. But according to truth it is divided into its modes by prior and posterior, because the opposition of being and non-being, or according to affirmation and negation, has more of opposition than all others. And the opposition according to habit and privation, which is opposition according to being and non-being in a certain respect, after this has more of opposition. Opposition however according to being and non-being has less, and in such opposition those things which are in act contraries have more power to be in the same than those which are relatives, which neither in act nor in potency can be in the same: because although they cannot be simultaneously in act and potency, nevertheless they do not have

as much formal contrariety as contraries which mutually expel each other: because relatives do not mutually expel each other, for the reason that they do not touch each other in the same, and therefore they do not have mutually active and passive forms. From these things again appears a certain sufficiency of oppositions and their order, according to which they have more or less of opposition: for those which have less are ordered prior, and those which have more posterior.

## CHAPTER III.

On relative opposites.

Let us speak therefore first of relative opposites, that whatever things are opposed as relatives, they themselves are of opposites, and are said according to the same case or in any other way towards another according to the same case or a different one: as double and half, this very thing which each of them is, is said to be the double of the other, for it is said the double of the half: and these are truly relative (ad aliquid) according to this very thing that they are: but also according to the saying 'discipline' in a certain way according to another case is said the discipline of the disciplined, and the disciplined is disciplined by discipline, and discipline is opposed to the disciplined according to relation, because discipline is said this very thing which is of the disciplined, and

-the disciplined, this very thing that it is according to which it is disciplined, standing under the form of discipline, is towards its opposite or

correlative, although not according to the same case, because it is not said 'the disciplined of discipline', but 'the discipline of the disciplined': for we call someone 'disciplined', not 'disciplined of discipline', but 'disciplined by discipline' (disciplina disciplinatum), making the conversion through the ablative case.

Let us conclude therefore generally that whatever things are relative opposites, this very thing that they are, they are said of others according to the genitive, or in whatever other way they may be said towards each other according to some other case. These however differ from all other modes of opposition and especially from contraries: for contraries are not said of others, but are said to be contrary to themselves or towards each other: for 'good' is not said the 'good of evil', but 'good' is said 'contrary to evil', nor is 'white' said the 'white of black', but 'white' is said 'contrary to black': from which it is clear that these two oppositions differ from each other.

But if anyone should object, saying that opposites mutually destroy and expel each other, whereas relatives, being placed, place each other, and being destroyed, destroy each other, and thus relatives are not opposites. It must be resolved, as was said in the previous sections, that relatives have the power and nature of opposites in this, that they expel each other in act and in power from the same susceptible thing or subject; and that being placed they place each other, they do not have from the fact that they are opposites, but they have from the fact that they

depend on each other according to the intellect: because thus each is the end and term of the other, and thus one cannot be placed without the other: because what is placed as finite through the intellect of the other is not placed as finite before the intellect of that one, nor has it being without it: by this necessity also it happens that being destroyed they destroy each other: for one being destroyed, the other is not finite in being; but nothing is in act unless it is finite in being: therefore what is not finite in being, is not: what is finite in intellect, is finite also in being, because things are understood through the same thing through which they are in being, as is said in the first book of the Physics.

However, it is objected against those things which have been said, that contraries as contraries are referred to each other, because contrariety is a form of relation: and therefore whatever things are contraries insofar as they are contraries, are also relatives. But to this it must be said as before, because contraries as opposites are referred to each other, and they are relatives according to genus and not according to species, or according to the individual. And when it is said that contraries as contraries are relatives (ad aliquid), the speech is double: because that which is said ('insofar as') can make a reduplication of contrariety as it is opposition, or as this opposition designated in itself. And in the first way indeed this is true, contraries as contraries are relatives, but then the conclusion does not follow, that the opposition of relation is the

opposition of contrariety. If however it makes a reduplication of this contrariety, then this is false, contraries according to which they are contraries are relative opposites, and it is resolved through the destruction of the proposition, and therefore it is clear that it does not prove it. For although from a false premise a conclusion sometimes follows, yet nothing is proved. This therefore is the first genus of opposition among the four which have been mentioned. And since all opposites are born to occur about the same thing, these which are called relative opposites are always in different things, and are not born to occur about the same thing, except in this, that they are referred to each other and are towards each other this very thing that they are. That they however mutually expel each other in act and power of being in the same, has already been explained in the previous sections, and how it belongs to relatives.

Treating however of contrarily opposites, we do not need to define the opposition of contrariety, because it is already established in the treatise on Quantity from the opinion of the Ancients, that contraries are those which, placed under the same proximate genus, truly are most distant from each other. Because also although a medium compared to an extreme is a contrary, yet insofar as they are distant, it does not have distance except insofar as it participates in the other contrary which is most distant, and thus the medium is not distant from the extreme except by reason of the maximal distance. And thus

all things which are distant under the same proximate genus, are either extremes most distant, or if they are not extremes, they are distant nevertheless through those things which are most distant, that is, by participation in the extremes. Moreover, they are born to occur about the same susceptible thing, or subject, which is in potency to both contraries: because those of which there is one proximate genus, of these there is one potency: because the genus is the potency in which both are potentially, and from which through division made by opposite differences both go out and are brought forth. Thus therefore it is established regarding the substantial definition of contraries.

I say, however, that of contraries some are immediate regarding their subject or susceptible thing, some however are mediate, that is, that some are those of which it is always necessary for one to be in its susceptible thing, some however are such that it is not necessary for either to be in it, but a medium can be in it which is neither of the extremes. Of those however of which it is necessary for one of them to be in, there is no medium: of those however of which it is not necessary for either to be in, of these the medium is something.

But so that those things which have been said may be declared figuratively through examples, an example of immediate contraries in physics is sickness and health regarding an animal complexioned in body: for these are born to occur about the body of the animal, and it is necessary

for one to be in the body of the animal, either sickness or health. Nor is it hidden from you that Galen between the healthy and the sick places a medium which is neither: for example, when the animal is actually healthy but disposed towards sickness: or conversely, when it is actually sick but disposed towards health: or when it is sick in the whole and in part, or conversely, or behaving in some other such way. For all contraries which are founded upon the equal and the unequal are necessarily immediate, just as being equal and unequal are immediate, because they are reduced to affirmation and negation and are contradictories in genus, although they are not contradictories simply. Healthy however and sick are founded upon the equal and the unequal, because healthy is that which is in equality of complexion, whereas sick is that which has departed from equality: and in this way the 'neither' is not a medium, but is the sick not much distant from the healthy, or the healthy not much distant from the sick: and this the Philosopher considers according to that part of physics which is medicine. The intentions of healthy and sick, insofar as there is contrariety between them, the logician considers: because they are simply founded upon the equal and the unequal, the logician says they are immediate.

There is however an objection against those things which have been said, in physics: because motion is always from contrary to contrary: every motion however has a medium, because everything which is moved from an extreme or

contrary into an extreme contrary, is first in the medium than in the extreme, and thus there are no contraries in physics which do not have a medium, as it seems. And this indeed is true in this way in which the objection proceeds, namely according to this, that contraries are compared to the subject which is in potency under each of the contraries successively: and thus the physicist considers contraries insofar as there is motion of them. Neverthele-

ness however the intentions of contraries sometimes take the cause of opposition from the equal and the unequal, and sometimes from essentially repugnant forms. And when they take the cause of opposition from the equal and the unequal, there cannot be a medium between those intentions because of affirmation and negation; but when repugnance and essential distance is in the cause, either those essences or forms are miscible with each other, or they are not miscible according to number. And if indeed they are miscible, those contraries have a medium; but if they are not miscible, like the equal and the unequal, but are immiscible, then those contraries according to their formal intentions do not have a medium.

Just as the healthy and the sick are immediate regarding the body of an animal, so the even and the odd are immediately opposed regarding number and are predicated immediately of number, so that every number is even or odd, because of the same cause: for an even number is that which is divided into two equals, while an odd

number is that which is not divided into two equals, but into two unequals; and thus the even and the odd are founded upon the equal and the unequal. For it is necessary that one of these be in number, like the abundant and the perfect. I say 'abundant' here, not as it is a certain property of number according to which every number is said either to be perfect or to be diminished. For we do not take 'abundant' and 'perfect' here in that way, but according to which the perfect is the equal, while the abundant is distant from equality; for thus the even number is perfect because it perfectly stands upon the equal, while the odd is imperfect because it is abundant by a unit over the equal. For an odd number, as Pythagoras says, is that which is not divided into two equals, because of the intervening unit which hinders it. Therefore, there is nothing in the medium between these, namely between health and sickness, nor between number thus abun-

-dant and perfect, and odd and even.

Of those contraries, however, in which it is not necessary that one of them be in their susceptible subject, there is some medium because of the miscibility of the extremes, just as white and black, since they are contraries, happen to be in a terminated body as in a susceptible subject; and it is not necessary that one of them be in the body; for not every terminated body is either white or black, but is sometimes figured by a middle color.

Similarly, the wicked and the virtuous are predicated as contraries of man and of many other things; for each thing is virtuous which is

perfect in its connatural virtue for its proper and connatural act, just as a man for the act of a man, and a lion for the act of a lion, and a soldier for the act of a soldier, and a philosopher for the act of a philosopher, and so it is in all other things.

These contraries, however, the wicked and the virtuous, are mediate: because it is not necessary for a man to be either virtuous or wicked; and similarly it is concerning other things which are called wicked or virtuous. For there can be media, so that they are neither wicked nor virtuous, just as there are bodies disposed to the virtue of their act, yet not having the contrary habit, as Averroes says, because a rustic who is not disposed to the civility and courtliness and virtue of a man, is neither good nor bad, neither wicked nor virtuous. The Hesiodists, however, following the philosophy of those who theologize, say that between good and evil, or between the wicked and the virtuous, there is no medium: for they do not call some good 'good' by the goodness of a simple nature, but they call 'good' that which is perfect in virtue for every act; and he who falls short of that when he ought to be perfect, they say is evil at least by the malice of omission, because the study of virtue did not do what it ought; but they call the wicked 'good' perfected in harm for a wicked act-

-fected, and so say the Theologians of our time.

Physically speaking, however, there is a medium between the wicked and the virtuous, as has been said. There is, therefore, a medium

for these contraries: for white and black the medium is dusky and pale, and there are other middle colors, such as green, and glaucous, and hyacinthine, and saffron. For the wicked and the virtuous, however, the medium is that which is neither wicked nor virtuous, as we have said. But in some contraries the names of the media are placed between the media, and they are those whose forms are miscible into a determinate form of a medium, just as between white and black the media are named dusky, and pale, and others of this sort. In contraries, however, whose forms are not miscible into a determination of a medium, it is not suitable to assign names of media, although there are media according to the truth of the thing. This medium in such cases has to be determined by the negation of both of the highest or extremes: for the highest are distant from each other in the highest degree, as if I were to say that the intermediate between good and evil is that which is neither good nor evil, just as a rustic is called neither civilly good nor evil: or as we would say that between the just and the unjust is that which is according to general justice, which is the same as every virtue, because that which is not disposed to civil justice is neither just nor unjust. For although such contraries are miscible, because in every motion the extremes are in some way miscible, since otherwise there would be no motion between them, nevertheless they are not determinable into a form of a medium, because there is no state in their media determined to a species of medium according to

the form of the medium. In all sensible contraries, however, the media are either more or fewer according to the doctrine which is handed down in the book *On Sense and the Sensible*. Because contraries in those things are simple forms of the extremes: in other things, however, which are founded upon certain relations of equality or inequality, there cannot be a medium. Although the ethicists say that virtue is a medium between two malices, which however is not mixed from two malices, because virtue according to the account of the good is not a medium, but an extreme: in the act however and in the middle of a habit it is a medium, unless it is mixed from two malices according to the medium of two malices in the circumstances of the act, which it participates in the middle way of the two malices, of which one is according to abundance, the other is according to defect. This therefore and of such sort is the opposition of contrariety.

Privation and habit, according to which they are said to be species of opposition, happen concerning some same thing which is properly susceptible of the habit itself according to nature, just as vision and blindness are concerning the same thing that is susceptible to the habit by nature, which is the eye. For the eye is susceptible of sight by nature: on account of which the Philosopher says that if the eye were an animal, sight would be its soul: hence just as death and life are opposed concerning the same thing which by nature is susceptible of life, so sight and blindness are opposed concerning the eye, and hearing and

deafness concerning the ear, and being bald and being hairy concerning the forehead, because by the humidity of the nature of the brain the forehead is born to be hairy.

Speaking universally, however, of all such opposites, it is to be known that in whatever thing according to the principles of nature and the order of nature a habit is born or has to be born, concerning this according to the same principles and the same order each of these opposites has to happen, namely habit and privation, habit namely when the principles are constant and the order is constant according to the determination of nature, privation however-

-according to the corruption of both, namely of the principles and of the order determined by nature.

That order is indeed required in such things is clear from this, because we then say each thing is deprived of its habit in that time in which that which is born to have some habit, then does not have it. And if before the time determined for having the habit it does not have it, then we say that it is not deprived: for we call 'toothless' not him who does not have teeth at any time, but him who does not have teeth in the time in which he is born to have teeth according to nature: nor do we call 'blind' him who at any time does not have sight, but him who does not have it in the time in which according to nature it is appropriate for him to have sight or teeth. For since nature, as Aristotle says, neither abounds in superfluities nor fails in necessities, and all things

are measured by a period, as the same Aristotle says, if in the time in which it is born to have, it does not have, it is certainly deprived of the principle of nature for operating: if it fails before the period, it is not deprived of the natural principle, but the matter in which the principle of nature was compared could not complete it in so short a time. On account of which we do not call children 'toothless' when they are shedding their first set of teeth, because the generative principle of teeth remains in them. For there are some generations or some generated things which, as soon as they are born, have neither teeth nor sight, as is the case with the newborn dog, wolf, and cat: and man, although he has sight, does not yet have it coordinated, but as soon as he is born he does not have teeth; and such newborns are not on this account called toothless or blind, because this does not signify the corruption of the principle or of the member in which privation and habit are, but it signifies the shortness of the period in which the organ could not be completed to the perfection of the habit.

Thus, therefore, privation and habit are opposed, so that privation means the corruption of the principles of the habit in that in which it is then born to be a habit. And this is threefold according to what Aristotle says in the fifth book of the *First Philosophy*, namely concerning the same in number, as the blind concerning the seeing, that is, having sight: or concerning the same in genus, just as the mole is called a 'blind mouse,' not that it is born to see, but that its genus (which

is animal) is born to have sight: thirdly concerning a remote genus, as a plant is said to have sight, because the living thing is born to have sight, since seeing is among the operations of life, which the living thing is born to receive insofar as it is living. In these ways, therefore, privation is opposed to habit, when namely the habit is deprived by the privation of the principles of the habit itself: on account of which also the 'seeing' is not opposed privatively to the 'not seeing,' because something is 'not seeing' and not using sight, and this is not deprived of sight: and there is the 'not seeing' having neither the principles of sight from genus nor from species, just as a stone is 'not seeing': and thus 'seeing' and 'not seeing' are opposites according to affirmation and negation, and not according to privation and habit. For this purpose, therefore, that privation and habit be opposites, it is necessary that they be concerning the same habit susceptible by nature, of which susceptibility privation is pre-corruptive. And this is the cause that the habit according to the order of nature precedes privation, and privation is compared to the habit as the second, because the first is the habit. It is not necessary, however, for the habit to precede in act, but in the order of the principles of nature: for if it were always necessary for the habit to precede in act, then no one would be blind or deaf from birth, which is false.

Being deprived, however, and having a habit is not altogether the same as privation and habit:

although between them there is the same mode of opposition. The habit is sight: sight, howev-

-er essentially is not 'having sight.' Similarly, privation is blindness, because blindness receives the predication of privation, just as the species receives the predication of the genus. Having sight, therefore, is not sight. 'Being blind' and 'being deprived of sight' is not blindness or privation: for if blindness and 'being blind' were essentially the same, then each of them would be predicated of the other, and of whatever one was predicated, the rest would be predicated of the same: this however is very little or in no way appropriate, for a man is said to be 'being blind' or 'being deprived of sight,' but a man is in no way called 'blindness.' And through this it is clear, that privation deprives the habit in itself, and in the principles of the habit it leaves the subject, concerning which there is potency, and that is nothing of the privation. These however, namely 'being blind' and 'having sight,' are opposed just as privation and habit, for the mode of opposition in each is the same: for blindness is opposed to sight, just as 'being blind' is opposed to 'having sight.' But in this there is a difference, that blindness and sight name the opposites themselves according to privation and habit: 'being blind' and 'having sight' name the subject insofar as it stands under privation and habit, as if denominated by them, and therefore since the subject of itself does not have opposition to itself, nor can a subject be opposed to a subject, it remains that there is no opposition there except of privation

and habit, which is signified to be placed concerning the subject, and therefore it is necessary that the same mode of opposition be between blindness and sight, and between 'being blind' and 'having sight,' or between 'being deprived of sight' and 'seeing' or 'having a habit.'

It should be noted, however, that this opposition is not the opposition of contraries: for although privation is saved in the contrary, as when it is said that from 'not white' comes 'white,' I say that it can be 'white,' and this is 'black': nevertheless black and white, insofar as they are contrary forms in act, are also repugnant to each other, and thus they are opposed as contraries. But insofar as there is the same in those which participate in each of those forms as the perfect and the imperfect and as formable to a species, such as is light: or speaking logically the genus which is in each of the species as potency, and as formable to a species: thus they are opposed as privation and habit: and thus from one the other can be made, just as act from potency: for thus each is made from the other, just as 'not able to do this' nevertheless can be it, and each has the inchoation and principle of its being in the other: and this privation which is one of the principles of motion, precedes the habit according to nature: and because matter is never without form, therefore such privation is founded according to the mode which we say in a contrary or disparate form: and therefore the Philosopher says, that of whatever things the genus is one, of those the matter is one. It is clear,

therefore, that privation and habit have a special mode of opposition distinct from the mode of opposition of contraries.

The fourth genus of opposition is according to contradiction: which, because it is complex, does not so much suit the purpose of this treatise. For in this part, speaking logically, we do not intend anything except concerning the ordination of the predicables, insofar as the predicables of things are significant of the categories, and have to be reduced to things: and because opposite things are under contradictories, therefore in treating of opposites, it was necessary to treat of contradictories insofar as opposite things stand under contradictories. And therefore it is to be known that that which according to the thing is under affirmation, and that which according to the thing is under negation, is not the same as affirmation and negation: the proof of which is: because affirmation is an affirmative speech, negation (which is contradictory) is a negative speech: of those however which are in affirmation and negation, they are as things affirmed and denied: for none is speech, but rather the thing which underlies the speech, just as the signified stands under the sign.

For it is to be known that 'affirmation' is said in three ways, and similarly 'negation.' For affirmation is called the quality and form of affirmation in the part through the assertion of composition: and in this way affirmation is a quality of a proposition, and by the opposite negation is called the quality or form of the division of

things composed, and is a quality of a negative proposition. Sometimes affirmation is called an enunciative speech saying one thing of another, and thus affirmation is a species of proposition. Sometimes affirmation is called a part of negation, when namely the same thing is denied in the negative that is affirmed in the affirmative: and thus affirmation and negation are opposites concerning the same thing: although affirmation is not opposed to negation as it is a part, nevertheless the opposition is in this, that that which is signified to be in one, is signified not to be in the other: not being in and being in, however, are opposites through affirmation and negation.

If anyone however should object that between affirmation and negation there is an order, that affirmation is before negation, for negation does not deny except what affirmation affirms; and it seems that opposites according to affirmation and negation are concerning the same thing in order, and thus they are opposites as privation and habit, as is clear through the things said before, It must be said that when it is said that

opposites as privation are concerning the same thing in order, it is understood that that order is in things determined by nature: the order however which is between affirmation and negation is not of such sort, but is an order of reason: because namely negation does not deny except what affirmation affirms in any time: and this is not in the opposition of privation and habit. These genera of opposition are therefore distinct from each other: and in the argument there is an

equivocal paralogism, and that the order is taken one way and another on this side and that.

Although however, as has been said, that which underlies affirmation is not affirmation, and that which underlies negation is not negation, nevertheless it must be conceded that those things which underlie affirmation and negation are opposites just as affirmation and negation: and there is in them the same mode of opposition which is also in contradictories: for just as affirmation is opposed against negation, as 'he sits' is opposed to 'he does not sit,' so also the things which are placed under each, namely affirmation and negation, have the same mode of opposition, as 'to sit' is opposed to 'not to sit' with respect to the same thing and concerning the same thing.

If however someone should ask by saying that since affirmation and negation in speech are complex, in which from the nature of contradiction there is opposition, but in things there is the mode of that opposition, it seems that this opposition is primarily in speech, and not in the thing except consequently and not through truth, but through some mode of it only: even this some have sometimes conceded. But against this is what the authority of Plato says: because the thing is not subject to the speech, but the speech to the thing, because speech is not except for the sake of signifying things: and just as has been said in the things held before, in that the thing is or is not, the speech is true or false: and thus it seems to be first in the thing, and consequently in the speech: and this is to be conceded. And on

account of this it must be said that contradiction is not in speech except insofar as it refers to the thing, and it is in the thing as in the cause, but in the speech as in the sign of the thing. Further, however, it is to be noted that in the thing it is as in the cause and not in composition and division: for the thing is in the thing or separate from the thing, just as in a middle composition which is different from the composed things, but the soul places the note of composition or the note of division, as Aristotle says. And therefore there are three things in opposition according to affirmation and negation, namely that affirmation and negation refer to the same thing, and to the same understanding composing and dividing, and that identity of signifying be observed in speech in affirmation and negation: because the thing is the cause, while the understanding is the composing and dividing, and the speech the sign of composition and division.

It is to be noted however that those defining affirmation and negation use a remote genus saying that affirmation is an affirmative speech, and not saying that it is an enunciation: because wanting to show that affirmation and negation are opposites, it is better shown from the genus which is 'speech,' because this is common to both, namely to affirmation and to negation: enunciation however is a species of speech, and properly speaking nothing is enunciated in a negative enunciation, but rather something is denied of something in the enunciation: and that which

was enunciated in the affirmation is denied in the negation.

Further it is to be noted that when it is said, 'affirmation is an affirmative speech,' 'affirmation' is placed for the species of enunciation or proposition whose genus is speech. When however 'affirmative' is added, 'affirmation' is placed for the quality of the proposition which informs and denominates the speech as to what sort.

And if someone says that others of speeches are affirmative, it must be said that they are not: because they do not affirm true or false. Hence when it is said, 'would that I might not die,' nothing is denied, but it is an optative concerning not dying. Similarly also when it is said, 'do not do this,' or 'you should not do something else,' nothing is denied, but it is a command or precept concerning not doing. And the same is in affirmatives, when it is said, 'do this,' or 'would that you might do it': for this is nothing said, but a precept or optative concerning something to be made or done: and in such things there is not properly affirmation or negation, as has been said, because if it be present through the mode of affirmation or negation, the whole signifies an affection of the mind, which is imported through the mode of the verb which is placed in the speech.

### CAPUT VII.

*On the difference of the opposition according to privation and habit from the opposition of relation and contrariety.*

The genera of oppositions having been thus determined, it is to be seen in what things

they differ from each other and among themselves. That privation and habit however are not opposed in this way, or in the same mode as relatives, but that these two genera of opposition are diverse, is manifest, by first taking the difference or the account of the difference from those very things which are opposed: for sight which is opposed to blindness as a habit to a privation, is not called this very thing which is 'sight' of its opposite which is 'blindness' according to any case, whether according to the genitive or according to another case, it is not said to it: for it is not called the sight of blindness, nor sight to blindness, nor sight toward blindness, nor sight by blindness: for none of these habits can be referred to the thing, and to that which is sight insofar as it is sight: otherwise however sight cannot be this very thing which is toward another. Similarly however neither is blindness called this very thing which is the blindness of vision, nor according to any other case is it called this very thing which is of another. But blindness is called the privation of vision, and thus according to genus it is in some way of another, but not according to species: for the blindness of vision is not called 'blindness.' The cause of this however was said in the things held before in the treatise on Relation, because sometimes in the account of the name of the species there is enclosed or conceived that of which it is, and that to which it is said: and then they will be incongruously opposed from without. Inducing the account further from the opposites themselves, as is clear

from the things held before, all relatives are said reciprocally to conversion: on account of which also blindness, if it were of the number of those things which are this very thing which they are toward something, would be con-

certainly towards that towards which this is said according to that very thing which it is: but it is not converted: for sight is not said to be the sight of blindness, as was proven a little before; therefore neither is blindness that very thing which it is, towards something. But the mode of opposition of those things which are relatives is taken from this very fact that they are relatives. Therefore, since the mode of opposition of privation and habit is not taken from this, it is clear that the opposition of relation is one thing, and that of those which are opposed as privation and habit is another.

But that those things which are opposed as privation and habit are not opposed as contraries, is manifest from what will be said: for contraries are either mediate or immediate: but of those contraries of which there is no intermediate, such as immediate contraries, it is necessary that one of the contraries always be present in the susceptible subject in which those immediate contraries are naturally suited to occur, or they are those in which and of which they seem to be predicated by denomination: for one of them is always predicated of such things or both under disjunction: for always according to all time there is no intermediate of those contraries, of which it is necessary that one in all time be present in

the susceptible subject, and of which it is always necessary that one be predicated of the susceptible subject, as is clear concerning sickness and health regarding an animal, and the abundant or odd and the perfect or even regarding number. But of contraries of which there is some intermediate, it is never necessary according to any time that one of them be present: for the intermediate, which is neither of the contraries, can always be present: for it is not necessary that either bright or white, or black be present in every or any susceptible subject, because brown or pale can be present. Similarly it is not necessary that hot or cold be present in every or any susceptible subject, because lukewarm can be present, which is neither hot nor cold: for nothing prohibits an intermediate, which is neither of the extremes, from being present among these and similar contraries. But of those, as we said, there is some intermediate, of which it is not necessary that one parameter always be present in the susceptible subject, except for those in which one of the contraries is naturally present, just as hot is present in fire, and just as being bright is present by nature in snow. But in such cases it is necessary for one to be present, and it is not fitting for its opposite to be present, or it is impossible for it to be present without the corruption of the substance. For it is not possible for fire to be cold in such a way that the substance of fire remains, or for snow to be black in such a way that the substance of snow remains: for indeed there are many other subjects susceptible to heat and

brightness, besides those in which one is present by nature. And then from what has been said it is clear that it is not true for all susceptible subjects that one of the mediate contraries is present, but only for those susceptible subjects in which one is present by nature: and in these one is determinately present, and it is not fitting for the other to be present.

In privation and habit nothing of those things which were said concerning immediate contraries is true. For to the subject susceptible to privation and habit it is not always necessary for either one to be present, that is, the privation or the habit: because these are not in it except in a determined time: but an animal just born does not yet have a time determined by nature for seeing, and is said to be neither blind nor having sight. Because of which it follows that privation and habit are not of the number of such contraries of which there is no intermediate, because of those it is necessary at all times for one to be present in its susceptible subject. But neither are privation and habit of the number of such contraries, of which there is some intermediate; for it is necessary for every susceptible subject of privation and habit to have either the habit or the privation present within it, after the time has come in which that very susceptible subject is naturally suited to have the habit: for thus it is said to be either blind or having vision: and then it is not fitting by necessity for one to be determinately present, namely sight determinately or blindness determinately, but rather it will neces-

sarily be indeterminately one or the other: for it is either seeing or blind indeter-

-minately. But in contraries in which there is an intermediate, it is never necessary according to any time for one to be present, because the intermediate can always be present: but in certain susceptible subjects it determinately belongs to one of the mediate contraries to be present, as we said, to which that is present by nature. Because of this it is evident that those things which are opposed privatively have opposition according to neither mode: for neither is one always present, as with immediate contraries; nor is it never necessary for one to be present, as the opposition stands in mediate contraries.

Moreover, the same is proven in contraries whether mediate or immediate, the susceptible subject existing and remaining according to substance, it is possible for a change of alteration to occur from one to the other, unless one of the contraries is present naturally, just as heat is present in fire by nature. For in immediate contraries, an animal which is now healthy, it is possible to become sick, changed from health into sickness: and in mediate contraries, it is possible for that which is now white to become black and be changed from whiteness into blackness, and similarly it is possible for the hot to become cold, and conversely, and that which is virtuous is possible to become wicked, and conversely from wicked it is possible to become virtuous, which however Plato denies in the book which is called *Meno*, but it cannot be denied if we posit that

virtue comes about from habituation: for according to this a wicked man, being led to better exercises or habituations of good works, and in intelligible virtues being led to better teachings and the like and choices, although perhaps at first he may make little progress to become better. But if he takes at least a constant or continuous small increase, it is clear that he will either be perfectly changed and will be perfectly virtuous, or he will receive quite a large increase, such that he will work as a virtuous man. For if by habituation he becomes suitably more mobile towards virtue, so that he does the things of virtue easily and rejoices in them: or even if he is not a man, but nevertheless whatever increase he takes, it is clear that he will either be perfectly changed, or he will take quite a large increase which suffices for the reception of virtue. For if from the beginning he takes some increase, it is likely that he will receive an increase if he perseveres in the exercise of good acts, and since this always happens continuously, he is thus perfectly restored to the contrary habit, unless perhaps he is either suspended or cut short by time: because not all progress equally in an equal time, because one is less apt than another, because natural things cooperate much with moral things. This is how it stands in contraries.

But in privation and habit what has been said does not in any way apply: for it is impossible in privation and habit for a change to indifferently occur from one to the other: for from habit a change occurs into privation, but from privation

into habit it is impossible for a change to occur. For a blind man who has been made such will never see again, nor when someone has become bald is he ever made hairy on his head again, nor if someone has become toothless without teeth do teeth grow again for him to become toothed.

### CHAPTER VIII.

### *On the dubitable things which are concerning those things which have been said.*

Although through those things which have been said, we do not intend to prove anything except that things opposed privatively are neither opposed as relatives, nor as contraries, nevertheless for the facility of teaching it is well to determine the doubts which concern the things which have been said. But what the cause is that some contraries are mediate and some are immediate, has already been determined in what preceded.

But that one of the contraries is present to something by nature, the cause is this, that it is present as a natural potency; and this

is taken from the proof which Aristotle made at the end of the third book of *Meteorology*. For in the substantials of fire, from the fact that it is an element distended by motion so as to be rarefied to the utmost, heat is rooted in the highest degree, nor is it separable from it, while the substance remains, by which fire is fire: because while the formal substance remains, that remains which is rooted in the substance as a natural potency.

And if someone should object that heat, because it is an accident in one thing, can be a substance in nothing, and thus is not a substance in fire, but an accident: and thus heat is in fire not as a certain part, and therefore it seems that fire could be fire and not hot, because an accident is, as Porphyry says, that which is present and absent without the corruption of the subject, it must be said that it is a natural accident and a proper essential characteristic of fire, following it and not leaving it. But that it is not in it as a certain part, must be conceded, because that which follows the whole perfect being cannot be a part. But what Porphyry says, he says of a common accident, which is not proper, namely natural: and therefore as an accident it does not have inseparability, but it has inseparability from the fact that it is natural.

It is clear from this, however, that the opinion of those who say that the primary qualities are the substantial forms of the elements is false: for the substantial forms of bodies have no contrary: but these are contrary to each other [1].

It should also be known that these things are present by nature not of that which is present, but by the nature of the subject in which it is present, as we said: and thus all natural potencies are present in all things.

But if someone should say that just as hot is present in fire by nature, so cold is present in water by nature: therefore just as cold water by nature can be heated so that it is actually hot without the corruption of the substance,

so fire ought to be able to be actually cooled by nature so that it would be actually cold without the corruption of the substance. To this it must be said that among the elements, as Aristotle says [2], only fire is formal and the others are formal-material, and therefore what is rooted in it, is rooted more deeply than in the others: and therefore from the others, while remaining in substance, their qualities are separated according to act, and they remain according to their roots in potency returning to act, when that which alters ceases from alteration. And therefore heated water, when the heating agent ceases, becomes cold again by itself. But fire, because it is most rare, and because receiving the alteration of the cooling agent into its depth, on account of the fact that it is highly formal, is immediately cooled, thickened, and corrupted from the substance and form of fire: which after fire air does according to a proportional mode. But water and earth, because they are thick, do not so deeply receive the alterations of those things by which they are changed: and therefore they are actually made into the altering form, and with this they hold their natural proper qualities and potencies in act for a long time.

But what we said, that from wicked one can become virtuous if from the beginning he begins to increase through exercises in good acts, was said on account of Socrates and Plato, who said that the virtue according to which a man is virtuous is neither a learnable nor an habituable good, but that virtue is a gift of the immortal gods: but

by habituation and teaching a man is prepared for virtue, because the gods do not help the lazy and sluggish, but those who extend and prepare themselves for virtue.

Furthermore, as to what was said, that a return from privation to habit cannot occur, this must be understood as being said of the privation which deprives both the habit and the aptitude of the subject to the habit, or which deprives the principles through which the subject has an aptitude for the reception of the habit-

-tion, just as blindness stands to sight: and such privation follows the habit in time and nature: for this privation does not leave the subject without an aptitude for the habit. But there is another privation which does not deprive the habit, but the essence according to being actually the habit: and this is that in which there is the inchoation of the habit according to potency, and from which the habit is drawn forth, and from this in every motion and change there is a process into the habit according to act by the mode by which the susceptible subject of the act is moved from potency to act: and this privation always precedes the habit in time and motion, and also in the nature of matter and potency: and we are not speaking of this privation here, because it does not totally deprive the habit. Nor even between such a privation and its habit is there the full opposition of things privatively opposed. But here we are speaking of the difference of modes of opposition, and therefore we are not speaking of privation and habit, except according to how

they have the full opposition of this kind to each other. But the other things which were said, are manifest in themselves.

But as to what was said of snow, that it is present to it by nature to be white: this is indeed because snow is materially generated from the transparent hardened and broken into minimal parts: but the transparent broken and hardened by hardening is made receptive everywhere on the surface of the clarity of light: and this is the nature and natural cause of whiteness: therefore through this nature it is present to snow to be white.

### CHAPTER IX.

### On the difference of contradiction to other oppositions, and whether truth is from eternity.

Having obtained these things, the difference of contradiction to all other oppositions must be shown. Let us say, therefore, that in affirmation and negation always, whether the subject exists concerning which there is the affirmation and negation, or does not exist, one part of the contradiction is certainly true and the other false: for of whatever thing, whether existing or not existing, a true affirmation or negation is said: and of nothing are contradictories both true or false simultaneously, as was proven in the fourth book of *First Philosophy* [1]: for whether Socrates exists or does not exist, concerning Socrates one of the contradictories is true, and the other is false: for it is clear when it is said that Socrates (while

Socrates himself exists) is sick and Socrates is not sick, that one of these is false and the other true. Similarly if Socrates is posited not to exist, and it is said that Socrates is sick or is not sick, one is true, and the other is false, for it is false that Socrates is sick when Socrates does not exist, and it is true that Socrates is not sick. Because of this, only in those things which are contradictorily opposed is it proper that always one of them is true and the other false, and that they are never simultaneously true or simultaneously false.

There are nevertheless some who strongly object against this, and they are not ancients but moderns. For Augustine [2] through this very thing which is said here, proves that truth is immortal, saying that either truth always was or it was not always. If it always was, the proposition is obtained that immortal truth was from eternity. But if this is false, truth always was, its contradictory is true, namely this: truth was not always. And if this is true, something was true; but the true is not except in truth: therefore truth was when truth was not, which is false. Inconvenient also is the same, from which follows that which namely truth was not always: truth therefore always was. In the same way it is proven that truth will always be: for either truth will always be, or it will not always be. If it will always be, the proposition is obtained. But if it will not always be, then this is false, truth will always be: therefore its contradictory is true, namely this, truth will not always be. And if this is true, something is true: but not true except by truth: therefore truth is which not-

-erit veritas, quod est impossibile. Therefore it was false what was said before, namely this, that truth will not always be: therefore truth is eternal and is immortal. And this follows concerning the truth of the proposition and concerning the truth of the enunciable, which truths are not the uncreated truth.

But if this is granted, then the moderns object proving that more than one thing will be from eternity in this way. For let us suppose we are before the world: then if this is true, that the world is to be, or this proposition, the world will be, and if it is true, it follows that before the world something was true. But if it is not true: then it follows that its contradictory is true, and thus again it follows that something is true, and that the truth of that thing was before the world, or was not except eternal, and eternity from eternity: therefore something was true whose truth existed: but both the enunciable and the proposition are created and of created truth. Therefore something created existed from eternity.

But if this is indeed granted, immediately follows the inconvenience which Plato says, that what is created, is made: but everything made began: therefore the created began: what however began, is not eternal: therefore the created is not eternal: the enunciable or proposition is something created, therefore it is not eternal: and if the proposition and the enunciable is not eternal, then its truth was not from eternity: and thus it seems to follow, that the truth of the proposition is from eternity, and is not from eternity.

But to this some others said [1] that the truth of the enunciable and of the proposition was not from eternity: and they assign the cause saying that the truth of the enunciable and of the proposition cannot be except when the enunciable and proposition exist. But before the world from eternity there was no enunciable, nor proposition, and therefore when it says, if this is not true, truth will be, the contradictory will be true. They say that this does not follow: because the contradictory is a proposition or enunciable: but before the world neither this was true nor the other, because there was no proposition. Similarly they say of the future, that truth will not be when the world will not be if it is posited that the whole world is reduced to nothing.

And if it is true what these people say, then this doctrine of contradictories is not generally true, and it follows that of the opposition of contradiction there is a middle in which neither one nor the other of the contradictories is true or false: and many inconveniences follow against this principle, that of anything the affirmation or negation is true, and of nothing simultaneously: and if this principle is not of firm truth, nothing is of certain truth in demonstrations: because, as Aristotle says, every demonstration relies on this principle as on the first.

Therefore we say that the doctrine which is handed down here is of the most certain truth, and that the arguments of Augustine proceed and are necessary. But it must be said that the things of which affirmation and negation are said, are in

being and in the very ordinability of things. And this is manifest through Avicenna and Algazel and Alfarabi saying (as is true) that when the predicate is conceived in the account of the subject, such a proposition is true whether the thing exists or does not exist: for whether man exists and animal, or man and animal do not exist, this is always true, man is animal, and animal is animate sensible and living and substance: and therefore it follows, man is animal, and animal living, and living substance. But if it is further inferred, and substance is a being: therefore man is a being. They say that it does not follow: because to be a being or beings happens to man and animal, and is not enclosed per se in their intellect. But when it is said, man is animal, the substantial ordering of the predicate to the subject suffices for the truth of the proposition. When however it is added, animal is a being, and being is not of the account of animal or man : not

for there is there a substantial order of one thing to another: and therefore if animal is a being, or man is a being, it must be that it is an actual being: and this is against the hypothesis, for we posited that man or animal did not exist.

Following this teaching, therefore, we say that the orderability of things into predicate and subject, is equally with existing things and with non-existing things, provided they are not impossible to be: and therefore before the world this proposition, the world will be, was in the very orderability of things. And if it is asked, in what was that orderability of things when things

did not exist? It must be said that it was in the very concepts of things. But if concerning those concepts it is further asked, it must be said that they were in the wisdom of the one creating and ordering. But if it is further inferred, that in the wisdom of the first intellect they were as one, and not as ordered one to another, it must be said that things in the wisdom of the intellect of the first cause are considered in two ways, namely as things considered in producing, or as the intellect by which they are understood. And in the first mode indeed passible to plurality and order not indeed in the act of the one ordering, but which is in things orderable: and in this way it is possible for there to be truth about them, and they are enuntiable to truth, although there never was an enunciation, and thus an enuntiable reduced to a thing, and similarly a proposition can be from eternity: and nevertheless only one thing is in act from eternity. And as to what is asked, whether such a thing is created or not? It must be said that it is creable, and not created according to the orders of things: and this although it is in the creator, nevertheless differs in concept from the creator, because the creator is not creable, nor created. But if these things which are in the intellect of the one creating are taken as the intellect, since the creator does not understand except himself, then it is true that things in the creator are through the mode of the creator, and they are not one nor many, neither ordered nor unordered, but they are the same as he himself.

And this is the teaching of Avicenna, which agrees with Porphyry, who says that with no species existing animal can be understood to be an animate sensible substance. And it is certain that he is not speaking of the intellect of the one understanding, because thus he would be saying nothing: because if there is no species of animal, there is nothing understanding. But he is speaking of the intellect of the intelligible: because according to the order of nature with no species existing, still as much as it is in itself, the animate sensible substance remains intellectually.

### CHAPTER X.

*On contraries on account of good and evil, which have a special mode of contrariety.*

But in morals, evil is indeed contrary to good, so that good is taken in the habit of virtue and act, and evil in the habit and act of vice opposed to virtue. For this is plain, namely that evil is contrary to good through the induction of singular things: for in the body although there are not virtues and vices, nevertheless there are those things which are proportioned to virtues and vices, as for the sensibility of the senses prudence, for the strength of the body fortitude, for the rectitude of the body and the ordering of the members justice, for health temperance, because health consists in the temperance of the complexion: and thus sickness as an evil is opposed to health as a good, and in the soul injustice as an evil is opposed to justice as a good, and to fortitude in both, namely body and soul, as a good is

opposed weakness as an evil, for weakness of the heart is fear or timidity. Similarly moreover it is found in all others: for evil is always opposed to good.

But by no means is good opposed to good: the cause of which is, because good is, as Aristotle says in the second book of the Ethics, from one single and total cause, from the cause of the act and in act, and the circumstances of the agent and the act being gathered together in the end: and this is in all things of which there is some virtue in act, whether they be bodily, or animating, that is, pertaining to the soul, or even if they be intellectual or divine, as Dionysius says: and therefore good is uniform: uniform

-form: but the uniform is not opposed to the uniform nor can it be opposed, because the uniform agrees with the uniform and cannot be opposite: and therefore Aristotle says that all consonant things are true and good. But the false immediately dissonates with the true, and the evil immediately dissonates with the good. But all these things are understood concerning good and evil spoken of simply, and not concerning good and evil spoken of accidentally as here and now: because thus nothing prohibits the same thing from being evil and good, just as to be cut and to be burned which are evils, are nevertheless good both now and here. But concerning such things one has to dispute in ethics: but it suffices to know only this much, that evil is opposed to good, but good is never opposed to good.

But sometimes good is opposed to evil, and sometimes evil is opposed as contrary to evil: for want, since it is an evil in citizens, because it impedes civil acts, is contrarily opposed to superabundance which impedes the acts of contemplative happiness, and therefore is also an evil. But in few cases is it such, which one paying attention can easily see. But in more cases good is always contrary to evil. For it is not found except in ethical and civil and economic matters that evil is contrary to evil, and in those which have an analogy or proportion to civil or ethical matters: but in all other things evil is contrary to good. But never is good found contrary to good, but it is concordant: for in the fact that good is in one way and from a total and single cause, good is indivisible and proportional to equality: but to the equal is not opposed the equal but the unequal. On account of which in the column of goods Pythagoras posited the equal, but the unequal he posited in the column of evils [1].

Moreover, in considering contraries it is not necessary, that if one of the contraries is, that the rest is of necessity. For if we posit all animals to be healthy, then through such an hypothesis health is, but sickness is not. Similarly if we posit every bounded body to be white, then whiteness indeed is, but blackness is not: because if it were, it would be necessary that it be in some bounded body: and we have posited all such things to be white. But we can see these things in complex terms. For if Socrates being healthy is contrary to what is Socrates being sick, because there is

the same mode of opposition in incomplex contraries, and in complex contraries when they are predicated of the same thing: then just as by complexion we say Socrates is healthy and Socrates is sick, since it is not possible that these simultaneously are present in the same thing at the same time, it is not possible that when one is, that simultaneously with this the rest also is. For since it is and it is true that Socrates is healthy, then for the same time it is impossible for Socrates to be sick, for otherwise contraries would simultaneously be present in act.

But although they are not present simultaneously in act, it is however plain, that all contraries have to occur around the same thing either in species, or in genus: for they are naturally suited to occur around the same thing in number, as around a subject: but some contraries have to occur around the same thing in species just as around that which is essentially constituting contrary forms, just as whiteness and blackness around light, and just as sharp and flat in sounds around the dissonant which is in both, and just as bitter and sweet around the digested humor which is in flavors and thus in many others. They also have to occur around the same thing in genus, because contraries are in the same proximate or remote genus: for sickness and health have to occur around the body of an animal by nature, and thus are around the same thing in genus, namely animal. But whiteness and blackness have to occur in a bounded body which is not the same in species, but in a remote genus: for

not all bounded bodies are the same in proximate species. But justice and injustice have to occur in the soul, which is the same in most specific species: because they only occur around the soul of a man, which is the same in most specific spe-

-cific species. And thus contraries occur around the same thing in number, and around the same thing in species, and around the same thing in genus.

Moreover the consideration in those things which are proper to contraries, it is necessary that all contraries be in the proximate genus, or in contrary proximate genera: or it is necessary that the contraries themselves according to themselves be contrary genera. For white and black are in the same proximate genus, for color is the genus of these contraries. But justice and injustice which are contraries, are in contrary proximate genera, because justice is in the genus of virtue, but injustice in the genus of vice: but virtue and vice are contrary genera, for the genus of justice is virtue, but the genus of injustice is wickedness or vice. But good and evil accepted simply and according to themselves or universally are not in anything as in a genus, but they themselves according to themselves are contrary genera, and thus are the existing genera of others, to which many or all other things are reduced as to genera.

### CHAPTER XI.

### *On the dubitable things which are concerning those things which have been said concerning good and evil.*

But there is among many a most ancient question, in what genus of opposition do good and evil oppose each other. And if the words of Aristotle in the thirteenth book of *First Philosophy* are considered, and the words of Dionysius the Areopagite in the book *On the Divine Names*, chapter 4, and the words of Augustine in the second book *On Free Will*, and the words of Peter the Apostle in the chapter on the elements against Simon Magus, and similarly the words of Pythagoras in the column of goods and evils, it is plain, that all these say concordantly, to which also Aristotle induces Socrates and Plato, that evil is opposed to good privatively and not contrarily, and that evil is nothing according to itself, neither accident, nor substance, but a privation. But a privation according to itself is completely nothing. For when it is in something it is not in it as a being accident, or a being substance, but it is in it as the privation of a habit: and this is the same as formlessness and deformity is said to be present in one who is mutilated or un-nosed, because what is *muti* in Greek sounds as nose in Latin: but it is certain that being un-nosed does not denote a being present as an accident, nor is it a being as a substance, which is form or matter or composite, but only from the defect of the due habit it leaves a deformity and ugliness.

But all the above mentioned authors deduce this question to this: that evil is nothing in any-

thing, and it is not a being any more in that of which it is the privation, than in that of which it is not the privation, just as blindness is not any more a being in the eye than in a stone: although in the eye it leaves an ugliness or deformity, but in a stone it does not leave any ugliness.

Therefore Dionysius [1] treating of evil more subtly than the others, shows this in the nature of a body and in the nature of an Angel, which some call an intelligence, although an Angel according to how the law of Moses and of Christ speaks of Angels, are not intelligences [2], according to how the Philosophers spoke of intelligences. But these things have to be determined in the book of *Causes*. But the way of disputation of Dionysius is in this that we take the good of nature in a body, and the good of a soul, and the good of an Angel, and we shall see that evil does not denote or posit any form or any being, which is a substance or accident contrary to the good, or to that form which is called good, but in all things evil posits completely nothing except the taking away of good, or corruption, and withdrawal or diminution, or by whatever other way privation can be named.

That these things may be more perfectly understood, let us say-

-say that of beings some are essences or existences, and some are beings which exist in those essences. Essences indeed are simple forms, as genera, and species, and differences, intelligences, and soul, and things of this kind, to which according to themselves corruption does

not happen, but if they are corrupted, then they are corrupted accidentally according to what they are in the being of those things which are through harmony and composition with these in which they are, to which being is given according to what they are. But to these which are composite in which the essences are, corruption happens through the dissolution of the harmony and composition, which are in these things which are. And therefore Dionysius says where he speaks of evil, that no existing thing is corrupted, but corruption is the taking away or dissolution of the mode and harmony which are around those things which from essences do not have being.

Therefore the formal good of the body by which the body is called good, is the perfect habitude to being and to the work of the body in the modes and harmonies which are to this that the body is perfect in being and for the body. But the corruption of this is nothing other than the disjunction or corruption of the harmony and commensuration: and this denotes nothing other than pure privation and corruption, and not some essence to which the harmony of something might be made, just as to an essence giving being to something. Therefore the evil of the body is not some essence, but the corruption of mode, and commensuration, and harmony.

Similarly there is a good in the soul, and the perfect of the soul is through the essence, which is reason, or rationality, and more aptly it is called reason. Therefore the good of the soul in the soul in all its powers according to being and acting is

to be commensurated to reason as ordering all things by reason. Therefore the evil of the soul is nothing but the corruption of this mode, and commensuration, and harmony, and not some contrary form to which the soul commensurated and proportioned might be evil and do evil. Therefore the evil of the soul just as of the body is nothing but privation, and is not something which is a substance or accident.

In the same way the good of an Angel is taken. The good of an Angel is to be commensurated under the essence which is a pure and clean active intellect: and the good of an Angel is, that it be in being and powers and act and work having commensurations to such an intelligence or intellect. But the evil of an Angel is not some form contrary to that commensuration, to which and under which the evil Angel is constituted, so that it might be evil in being and in work, but the evil of an Angel is the violation of a commensuration and harmony of this kind, which is nothing but corruption and privation.

Therefore evil in all things is opposed to good as a privation, and not as a contrary. And in this all Authors condemn the Manichaean, who said that there is an essence of evil just as there is an essence of good, and he said that evils through a certain essential nature are evils, to which nature and form they are harmonized and constituted so that they cannot not be evils. Therefore this is an error, and the truth is that evil in all things is nothing but the privation of mode and commensuration to the good. Therefore,

however, because with the modes and harmonies and commensurations corrupted in these things which are commensurated and harmonized to something, there still remain those very things which were measured as possible for commensuration: and this is a certain thing ordered to the good. But to be orderable to good is according to nature, because good (as Aristotle says) is that which is for the good.

Therefore Dionysius said that evil is a diminished and declined and particulated and imperfect good. Aristotle says introducing Pythagoras, that good is the place of evil, and evil the place of good, just as the eye is the place of blindness and sight. And just as Dionysius says, in this way the evil of the body is to be against nature. But the evil of the soul is to be against reason, and the evil of an Angel is to be against intellect, just as the evil of a lame leg is against stepping and the being-a-leg of the leg. Similarly however-

-tem est in febribus et aliis malis corporis quæ secundum quod mala sunt, nihil sunt nisi corruptio commensurationis complexionis in humoribus, vel compositionis in partibus et membris. For fever from this that it is according to nature a putrid humor evaporating through the body, is not an evil of the body, because in the good and healthy it happens to the humor that it is diffused vaporously through the body: but from this that the evaporation corrupts and impedes the modes and harmony and commensuration of true health of the body according to nature, from this it has the account of evil.

It is clear therefore that it is true what Dionysius says, that evil never is and that it does not have a formal or efficient cause, but is incausal, and beyond intention, and beyond will, and unfruitful, and sluggish, and that it is nothing but a privation incident from the defect of good. These things therefore said concerning evil have been extracted by us from the words of the Ancients. And it is clear that what they say is undeniably true. However, how the good is converted with being cannot be determined here according to the principles of this science, nor do we speak here of such a good, but rather of the good which is the good of each thing serving the harmony of commensuration, which it has according to its own essence perfecting it in being and in act which is according to the account of its essence.

What also some say, that goodness denotes a form added upon that which is, and therefore this is a true predication, 'goodness is good', is false, and what they say is not understood. For good upon being or that which is, does not add except a relation to the end and the perfect towards act, as has been said: but this has to be determined in the book *On Causes*.

How truly in this doctrine of the predicaments good and evil are said to be contraries, but not opposed according to privation and habit, must now be said. It must be premised however that evil as evil is toward something: for evil as evil, as has been said, is nothing but privation, as has been proven by the Authors. But that which is evil, is a corrupted act concerning the modes

and harmonies and commensurations toward the form of good: and in that in which the act is, it leaves similar habits, and those are evil habits: and in this way there is contrariety between good and evil, as between contraries, not that the contrary act and habit have some form from which they are evil, but because insofar as they are acts or habits, they leave something of it in the body or in the soul, that is, some quality which because it is deprived of the form of good, and since it is a quality, is said to be contrary: just as the lameness of a step is contrary to a straight gait, because the step is that which is a being in act and lacks the perfection of rectitude which is privation. In this way however all contraries have to be reduced to privation and habit, as Aristotle says [1]: because whiteness is a habit and a form with the diffusion of light on the surface, but blackness is a privation, because it is the privation of the diffusion of light on a shadowy surface. In this way therefore it has been said, that white and black are contraries, and similarly good and evil in acts and habits. And in this way the doctrine concerning evil placed here is understood.

As to what was said, that good and evil are contrary genera, it is clear that it is not understood of the most general, because thus there would be more genera than ten: but it is understood that they are genera of others which are good and in morals, because all things which are in morals are reduced to these as to genera.

And that good in morals is contrary to two evils, is not from this that it is a middle, but is

from this that it is an extreme in the account of perfect good, as Aristotle says, thus it is opposed to each extremity as an extreme and maximally distant from both. This however, as much as it pertains to this intention, had to be interposed :

concerning good and evil: for the remaining things are to be determined in first philosophy.

### CHAPTER XII — *On the multiplicity of that which is prior.*

After it has been determined concerning the opposites which are of diverse genera, we must speak concerning the multiplicity of that which is prior. Because by its account there is the order of those things which are in one genus according to the coordination of predicables according to which the species is under the genus and the individual under the species. For from this prior and posterior they receive their proper mode of predicating, which is most to be attended to in this book. The modes of the prior having been determined, the modes of the posterior are also determined through the opposite: because the prior is not said except with respect to its posterior.

We say therefore that one thing is said to be prior to another in four ways: and in this which is said in four ways, we do not understand a division into species, but it is a division said in many ways: and the prior in time has more of the account of the prior, and the second and third and fourth have more according to the order in which they will be enumerated by us. For the prior is not said equally of the modes of the prior according

to one account, as Aristotle hints in the fifth book of *First Philosophy* [1], where he distinguishes the prior among things said in many ways.

But the first mode, which is both principal and first, is that which is according to time, according to which one thing is said to be prior to another which is more ancient and older than it according to time. For in the order of the parts of time, the prior is the past which is continued to the present, with respect to the future which is still expected to happen: and therefore according to the order of time, the prior is that which in the past is further distant from the now, as Aristotle says, that the wars of Media were before the wars of Troy, and the wars of Troy were before the Roman wars and prior to them: and because here the prior is taken according to the account of the numbering thing which is extrinsically adjacent as a measure, and whatever is prior according to the number of the measuring thing is simply prior, therefore this mode is principal, to whose comparison and proportion or analogy all other prior modes are said. In this way therefore it is said to be prior, whose time is in the past. Further and prior is that which is older, and in this way eternity is before time by duration, and those things which are eternal, are before temporal things. But according to their own nature the essences of things are eternal, as genera which are the first principles of things: for to these a time cannot be assigned as a measuring number: because to be in time, as the Philosopher says in the fourth book of the *Physics* [2], is to be in

a certain part of measuring time. Thus therefore the genera are more ancient than all things.

In the second place however that is said to be prior which is not converted according to the consequence of subsisting. And I call the consequence of subsisting, as if one is posited to subsist in act according to being, that because of this it is necessary to posit that the other subsists according to being, as we say that one is prior to two: for if two exist, immediately it follows that one is and subsists: but if one exists, it is not necessary that two exist or subsist. And this mode is between the lower and the higher in the coordination of predicables: because the lower is as two, of which one is that which is directly above it, and the other is the constitutive difference: whence if the lower is posited in being, its higher is posited: but it is not converted, that if the higher is posited in being, the lower is necessarily posited to be: because the higher is conceived in the lower, as one in two: but the lower is not conceived in the higher except as potency, as two are in one in potency, and therefore the consequence is not converted from one existing, so that necessarily because of this the remaining thing exists: and among those things the prior seems to be not that from which the consequence is converted, and:

this is one: for from that the consequence to two is not converted.

In the third mode however that is said to be prior which is according to a certain order. But I say a certain order: because in every prior there is an order, and therefore order simply does not

make a special mode of the prior, but a certain order, not in as much as it is an order, but in as much as it is a certain order. Thus therefore in the third mode that is said to be prior which is prior with respect to us, as in demonstrative disciplines and rhetorical speeches: for in demonstrative disciplines there is prior and posterior through a certain order of doctrine: for elements in geometry are prior to those which are described in order: for elements are such as a point, a line, a circle, an angle, and such things, which precede in elemental order the descriptions and compositions of angular figures, for figures are described in order, according as from one another is proven, as a triangle, or a square, or a quadrangle, or a square, or a circle; because the center of the said circle is found through a triangle. Thus therefore in grammar the elements of letters are prior to syllables, and syllables to words, and words to sentences: and in a rhetorical speech in this mode the proemium is prior to the narration, and the narration prior to the partition. But this mode of priority is between the principles of genera, and the very genera of things which are constituted from those principles. But the principles are potency and act: for being is any genus of potency, and that is made in act through the act completing and constituting the thing of that genus.

Further above those things which have been said in which the prior is said according to the very nature of the thing, it seems both to be prior and to be said according to something added to it which is for well-being, so that what is more

honorable and better naturally according to that nature added to being seems to be prior: for many, whose judgment cannot be entirely false and therefore must be taken for authority, have been accustomed, I say, to call and name prior those who are more noble and from themselves more loved from a cause. And note if they are not loved more from a cause, they would not because of this be called prior: and therefore the cause makes them prior and not love, because love according to itself does not discern between prior and posterior.

But whether two things can be loved equally or not, it is foolish to ask: because where there is one love and one account of loving and it is equal in two, for certain they are loved equally. But if the love is simple, they do not discern one from many, nor many from one. But this mode is in the predicaments according to the order of substance before some things, because it is more honorable and better than all. These therefore are the four modes of the prior, which were said by the Ancients, and are more famous and common.

But Boethius says, that to these modes Aristotle added a fifth which did not exist before his time. Therefore Aristotle says that besides those four modes of the prior which have been said, another fifth seems to be a mode of the prior: for among those things which are converted according to the consequence of essence, that which is a cause for another in any way according to any genus of cause, the same is worthily said to be prior to that. For the cause actually causing and

the effect are converted according to the consequence of essence: and in such things if the cause is posited the effect is posited, or if the effect is posited the cause is posited. In such things therefore it is worthy that the cause by nature or by natural order be prior than the effect. But that some things are of this kind, is clear: for that a man is, is converted according to the consequence of essence, to this that there is a true speech concerning this which is that a man is: for if a man is according to the thing, true is the speech by which it is said, that a man is. But the speech is by no means the cause that the man is according to the thing, but rather the thing thus having itself is the cause that the speech is: for while the thing is or is not, true or false is said the speech which signifies the thing, as was said in the things held before, and thus the cause is said prior. It is necessary therefore that unless according to five modes spe-

-cial modes one is said prior to another. But this mode of the prior is between substance and accident: because the accident is caused by the substance. There are however also other modes of the priors as prior in motion, prior in space, or prior in place, and in first philosophy each one is distinguished as often as it is said, and they do not have to be determined here, because they are not referred to the genera of the predicaments.

But all these are referred, as has been said: for the essences of beings which constitute the genera, are referred to the predicaments: and thus they are either referred to their own essences, or

to those things which are between the genera to each other, one genus to another. And first indeed is the first mode. In the second place however is the second mode. And the third, because a double genus can be referred to intrinsics, namely to intrinsics according to being, and thus the third mode, or to intrinsics according to the ambit of containment, and thus the second is even before the third: which is more intended in the coordination of predicables. According to the order of substance however toward other genera there is a double order, namely according as substance is compared to others according to the dignity which it has toward others, and thus is the fourth mode. And according as it is the cause of others, and thus is the fifth mode. Nor are there more modes, because there cannot be more modes of comparison of genera according as genera are first principles, under which the coordinations of predicables are made. Others however say otherwise, but it is not to be cared for.

### CHAPTER XIII.

*On the modes of that which is said simultaneous according as it pertains to the doctrine of the predicaments.*

In the same way however it must be determined concerning this, that some things are said to be simultaneous according as they pertain to the doctrine of the predicaments. Let us say therefore, that to be simultaneous is not opposed to the prior, but is disparate from it: for the prior is opposed to that which is posterior, and vice

versa. And neither of them is simultaneous in the coordination of predicables, or it is not simultaneous according to place, nor simultaneous according to the will of the senses, nor according to dignity, therefore we must pass over such things: but it is simultaneous according to coevity, and not according to nature, and therefore only these two are to be treated.

We say therefore that those things are said to be simultaneous simply and properly which are coeval, or whose generation or state of having been generated is in the same time in which they are simultaneously generated and remaining, just as we say coeval things measured by the same time or period are simultaneous. For if they had been generated in one time, and immediately one perished, they would not be said to be simultaneous in time, because generation is ordered to perfect being. Nor are their generations said to be simultaneous, whose perfect being does not endure simultaneously in time. By this coevity therefore all things are simultaneous which from one common thing go forth through one and essential division, they are coeval among themselves; just as the most specific species are coeval among themselves, for neither is prior nor posterior to the other: which are also called 'aetanica' by the ancients, as if of one age. These therefore are said to be simultaneous according to time. Naturally however they are simultaneous in two ways: for those things are simultaneous whatever according to that which they are, are said for consequence or conversion, and according to this

mode one is not the cause of the other so that it may be, but they posit each other, and destroy each other. For if in this consequence one were the cause of the other, each would be the cause of the other: and yet in substantial being one can be the cause of the other. In such a way however are simultaneous double and half and other relatives which having been posited according to the nature of relation posit themselves, and having been destroyed destroy themselves: for double is converted to half, and vice versa: for since there is double so there is half, and vice versa since there is half, there is double, and according to this re-:

-lation, neither is the cause of the other as such: but the nature of relation makes both to be simultaneously, and these are simultaneous according to a certain nature which is founded upon the substance of each of the relatives to each other.

In another way however they are said to be simultaneous by nature simply according to that which is substantially their nature, those things which in one and the same division from the same genus are divided against each other from the diverse or from the opposite, and those are the things which by immediate division divide the same genus: for they are said to be divided from the diverse or from the opposite, whichever are taken according to the same division from one genus, as under animal as a genus according to one division the walking, the flying, the aquatic or swimming: none of these will be for the other through the other, but animal is participated

immediately, and they are coeval in it: and therefore they are said to be divided from the diverse, because they are from the same genus equally immediately: for animal is equally divided into the walking, and flying, and aquatic or swimming: and none of these is prior and posterior to the other in animal, but these seem to be simultaneously through the nature of animality.

Each of these however again by a further division is divided into species, the walking as well as the flying and the aquatic thus: the walking into man and horse, the flying into eagle and bat, of which one has membraneous wings, the other however feathered ones: the aquatic however into fishes swimming with fins, and into those which swim by the movement of feet like frogs. Those dividing things will therefore also be simultaneous naturally in that which they divide. Therefore simultaneous by nature are whatever have been taken under a genus or species according to the same division. Divided genera however are always prior to the things dividing them: for they are not converted according to what it is to be the consequence of those things which are simultaneous by nature. Which is manifest by induction and example: for when it is aquatic, it follows that it is an animal: when however it is an animal, it is not necessary that it be aquatic, because the affirmation is not converted from the higher to the lower.

Generally therefore concluding, those things are said to be simultaneous according to nature which are converted to each other according to

what it is to be the consequence of relation, but by no means is one the cause for the other that it may be, but relation is the cause of both. And secondly they are said to be simultaneous by nature, because in the same genus they are divided against each other from the diverse. And they are simply simultaneous, whose generation is in the same time. It is clear however to anyone how the predicaments agree: for it is simultaneous in time for simultaneous individuals, as well as for those related to each other in any genus. Simultaneous by nature however is the division of a genus into coeval species, nor in the coordination of predicables can it be simultaneous in more ways.

### CHAPTER XIV.

### *On the post-predicament which is motion.*

After we have already treated those things consequent to the predicaments which happen or agree with all predicaments by this that genera or those things which are in genera are compared to each other, now it must be determined concerning that which is consequent to the predicaments through the being which is predicated in them, from which, since the predicaments are principles of all those things of which they are principles, it follows that all being of things is predicated in them, and is signified by the names of the predicaments. It is however twofold, namely flowing being, and being simply and standing: and the predicament indeed in genus, species and individual predicates standing being:

and this has been sufficiently determined in the predicaments. There is however, as Avicenna says, flowing being which is not simply act, but mixed with potency: which mode of signifying being and of predicating by the ordering of genera and species and individuals could not be determined, for the fact that all those things signify and predicate what si-

-milarly in its own way it is in act: for which reason it was appropriate that this being should be designated and signified as predicated in something consequent after the predicaments: and this is in as many predicaments as there are those which can have their own things, and the being which is predicated as mixed with potency. Treating therefore of this we shall treat of motion as much as pertains to the present speculation: for to treat of motion subtly pertains to the Physicist: for since in anything there is being as potency first distant from act, nor can potency come to act except through motion, it is necessary to posit that motion is. Further however every passive thing either receives the act of the agent in no way, or it goes through motion to the act of the agent. It is clear however that the passive thing receives the act of the agent, therefore it receives it through motion: therefore it is necessary to posit that there is motion. Further time is posited to be: but time is not continuous except through motion: wherefore it is necessary to posit that motion is. If however there is motion, and in the predicaments it must be determined concerning every word which

predicates the being of some thing, it is necessary in the predicaments to determine concerning the modes of motion, and what kind of being is predicated in those modes, and to which predicaments it is reduced. Speaking however of motion according to this mode it is not necessary for us to define motion, because it is not predicated by one and the same account of the six modes of motions or species: for we take motion here by an extended name for all that which denotes any flowing being from potency to act, whether that being be substantial or accidental: for such a being insofar as it is flowing, has in common one mode by which it is signified, and by which it is predicated through the name signifying it according as it is flowing, and in this mode it has to be determined in this science. Let us say therefore thus determining the multiplicity of motion, that motion by the extended name of motion has six species, namely generation, corruption, augmentation, diminution, alteration, change according to place.

Generation indeed and corruption are in substance and in one way they are, and they are called mutations not motions. In another way however they can be called motions by the extended name of motion. For if they are in substance only, then they cannot be except either from non-substance to substance according to the being of substance, or vice versa from substance to non-substance: and because these terms are said to be opposed according to affirmation and negation, between which there is no

middle, this mutation has no middle, but is from the term 'from which' to the term 'to which' without a middle. Further however it follows that it is not in time, but in the now, because all time has a middle: and the swift in time divides time and motion: the now however is the end of time to which time is continued: it follows therefore that such a mutation is the end of motion: for as the now relates to time, so mutation relates to motion, and this is the proof of Averroes on physics in the commentary. If however generation is taken as mixed with the alteration by which the matter of that which is generated is altered through the qualities of the generating thing, then it can be called motion, and thus we speak here of generation, because it is as a flowing being. According to this mode it is clearly understood how corruption is a mutation and not a motion, and how it can be called motion, and how it denotes a substantial flowing being according to what Aristotle says, that in such a flux the living and the animal are not simultaneously in motion, and the animal and the man are not simultaneously in the motion of generation. And in the opposite way it is in corruption: because corruption in one way is a mutation from substance to non-substance, and thus is the end of motion. And in another way it is mixed with the motion of alteration of the thing corrupting that which is according to its own altering qualities in the power of the corrupter: and thus it is an alteration gradually casting off from substance, and in the end when the substance is in a cast-off

state of being, then corruption according to substance has been made. Thus therefore it is clear how generation and corruption are motions and how mutations.

All other motions however are while the subject is preserved in its substantial being, a subject to some being according to the perfection of quantity, or according to qualities, or according to where. And those are properly motions: because the mobile thing according as it is mobile is a perfect being in substantial being, and existing in potency in the being of how much or of what kind or of where: and motion is its act according as it is such: and therefore in quantity according to the account of perfect and imperfect there is augmentation and diminution: and augmentation is a natural motion, but diminution from the perfect is to be an unnatural motion.

Alteration however is not named by opposite names, but by one common name, which is according to the quality whose term according to nature or beyond which it ought not to be, is hot, or cold, or moist, or dry, and so of other qualities which are caused by these: yet it is not by a determined account. Because however in time the complexioned thing is varied and simply in simple things, and therefore Aristotle says [1], that it is not the same health in the morning and in the evening: because health is a habit founded upon the complexion of hot and cold, moist and dry: and therefore it is determined in genus and not in species, and is called alteration: for quality in genus does not have a contrary, but in species[2].

And although quantity does not have a contrary, neither in genus nor in species, yet in the account of the natural term and the defect from it, a quality of contrariety is suspected around quantity. Therefore therefore in common it is called alteration.

And these mutations indeed are according to those things which are in the substance either substantially or accidentally; and if accidentally either according to quantity, or according to quality: for relation does not predicate something which is absolutely in according to what it is, but being itself toward something, and it is clear that toward those things which are in substance there cannot be motion in more ways. If however it is according to those things which extrinsically lie adjacent to the substance, then it cannot be according to 'when': because 'when' is caused by time, and time is the measure of motion, and it cannot be according to 'when', unless it were according to motion, and thus motion would be toward motion, and this would proceed to infinity, which cannot be. Nor can it be according to action: because action is the operation of the agent and of the mover, and motion is not in the agent as in a subject. It cannot be according to passion: because passion is the cause of motion. Nor can it be according to position: because the position of parts in the whole and in place is not changed except through generation and corruption, as is clear. Nor according to habit: because the habit is changed toward the subject and does not change it. It remains therefore, that it be

according to where in which the whole preserved mobile thing is transferred from place to place: and therefore per se there cannot be except six species or modes of motion, according as motion denotes being or 'where' also flowing.

It is clear however, that various motions are diverse from each other, and one does not fall into the intention of another: for it cannot be that generation is corruption, because generation is the way into being, and corruption is the way from being into non-being. Neither can augmentation be diminution: because augmentation is the way to the due quantity according to nature, diminution however is from it. Neither is alteration a change according to place: because the altered thing remaining in the same place is moved or changed in passions, but in change of place the whole according to itself is transferred to another place. Although however it may be said that there are as many species of motion as there are species of being [3], for the fact that in every predicament there is a coming from potency to act, yet those are motions by accident and not per se, and are infinite: and therefore through art

they cannot be made, but are adjoined to other motions.

But in alteration it has a certain question according to some. For some doubt, lest perhaps it be necessary that that which is altered be altered through some of the remaining mutations, and not according to the alteration itself. But although some say this, yet it is not true, and this we can experience in ourselves: for it happens to

us to be altered almost according to all qualities of the passions of the soul and body without us being mutated by any of the other mutations: for it is not necessary to be augmented that which is moved according to the passions of qualities: nor is it necessary to be diminished according to that which is moved according to passible qualities. But similarly it is also in other motions, because it is not necessary that the altered be moved according to place, or be generated, or be corrupted. On account of which it is plain that alteration is another mutation which is besides all other motions and separated from all others. For if alteration were the same with some of the other mutations, it would behoove that that which is altered, be augmented or diminished: or it would behoove that when it is altered, some of the mutations consequent to alteration should be made. But this is not necessary, because it can be altered with no other mutations made in it.

But similarly it is to be known, that that which is augmented, is not moved by some of the other mutations, just as that which is diminished, or is generated, or is corrupted, or which is moved according to physical place according as motion according to place is from the generating thing, without doubt first it behooves to be altered in all physical things: because there is not made generation, or corruption, or augmentation, or diminution, or mutation of place which is from nature, unless alteration preceding which disposes the generable or corruptible or augmenting and augmented and diminishing and diminished

and the moved according to place to this that it be mutated.

And although this is necessary in physical things, yet in mathematical things there are some growing into more and an addition of their quantity, which are not altered from quality into another quality, as is plain in the second of Euclid, that a quadrangle with a gnomon placed around has indeed grown, but in nothing is made altered: because it is not mutated from figure into figure. For a *gnomon* according to Euclid is a supplement of a quadrangle which is longer on the other part to find the quantity of the quadrangle: and if this is placed around indeed to the quadrangle, indeed a larger quadrangle is made, but yet from its figure according to the species of a quadrangle it is not mutated: and therefore it is not altered, because it could not be altered according to another species of quality except according to figure.



[Diagram showing a square (quadrato) with a L-shaped addition (gnomon) forming a larger square.]

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### CHAPTER XV — *On those things which are opposed to motions.*

But the consideration of motion is twofold: it is considered simply or universally according as it abstracts from this motion and that. It is also considered according to species according as it is this or that motion. Let us say therefore that to motion considered simply contrary is rest. But I

say contrary taking it largely according as privation is called a contrary in physics: for what is rest, is the privation of motion: therefore because the mover to a form incoming contrary to the rest which it intends to induce, ceases from moving: and thus ceases and motion is deprived in that which motion is: and because the standing is in a form or in a place to which the motion is made, just as in the contrary to that of which the motion begins, therefore rest is said to be contrary to motion: although yet rest according to itself is not a contrary, but rather is the privation of motion [1].

Against which however some object saying that the cessation of motion is the negation of motion from that which is possible to be moved, and is not moved and terminates motion to the now in which it is to be moved, but in that which is moved is the same aptitude, because also that is apt to be moved: therefore it is the same subject in that which is possible to be moved and in that which is moved, for each is apt by nature to be moved, and rest is not except the negation of motion from each: rest therefore seems to be opposed contradictorily to motion, and not privatively or contrarily. But this same argumentation can be made in

all privative opposites. But to this it must be said that rest either privatively or contrarily is opposed to motion, as has been said. And when it is said that the same aptitude or potency to motion is in that which is apt by nature to be moved and is not moved, and in that which is moved in act, it must be said that this is false: for

it is not the same potency existing before act and with act: and thus affirmation and negation are not altogether of the same: and thus there cannot be a contradiction. Therefore rest is opposed to motion privatively or contrarily according as it is simply considered.

From which it is manifest that generation and corruption are not motions but the ends of motions, because rest is not opposed to generation, but corruption. But to motions (if through singular species motions are considered) is opposed not rest, but motion to a contrary, as corruption is opposed to generation, because generation is a way into substance, but corruption is motion to a contrary, namely from substance into non-substance: and similarly augmentation is opposed to diminution, because augmentation is the addition of an existing magnitude: but diminution is into a contrary, namely a decrement from a magnitude existing according to nature.

But to the mutation which is through place, most of all rest seems to be opposed. And this is the cause: because here is a simple motion or mutation, in which the whole mobile according to substance and quantity and quality (which is in it) is transferred: and therefore also rest simply is opposed to it: because just as such motion simply is motion and the cause of other motions, so such rest simply is rest. But other motions are certain motions and in a certain thing, and rests are rests in a certain thing.

But although to the mutation of place simply rest is opposed, yet to a certain mutation of place

which is straight, just as upwards or downwards, perhaps also the mutation according to place is opposed into a contrary, as the mutation of place which is downwards, is opposed to the mutation of place which is upwards, and which is upwards, is opposed to that which is downwards. But this is not certain whether it be on account of the contrariety of place as place, or on account of contrary qualities happening to place, as above in the tractate on Quantity it has been said. Or perhaps therefore it is doubtful: because con-

they may be said to have. Let us say therefore that to have is said in many ways: nor is its predication univocal concerning them, but equivocal or rather analogical according to prior and posterior. But the first mode is according to quality, whether it be had as a habit, or as a passion, or some other species of quality, as we are said to have science or virtue. In the second way however it is said according to quantity, as we say that something has a magnitude of three cubits or four. In the third way however it is said to have that which extrinsically lies adjacent around the body, as we are said to have a garment, or a cloak, or a tunic, or to have armor: and this is the proper mode of the predicament of habit. In the fourth way however it is said to have what is in a part, as having a ring on the finger. In the fifth way however it is said to have as a part in a whole, as a body is said to have a hand or a foot. In the sixth way however it is said to have as the container the thing contained, as a vessel is said to have wine, or a bushel to have wheat: for the vessel is said to

have wine, and the bushel wheat. In the seventh way however it is said to have as a possession, as we are said to have a field or a house. In the eighth way however it is said that someone has a wife, and a wife has a husband: but this mode seems to be most remote from having, because it seems to say nothing else than that the wife co-habits. It is clear however that perhaps also other modes can be found by others, such as saying that something has itself toward something, but those are reduced to these eight. These therefore are the eight modes of that which is to have, almost all which Aristotle enumerates. And these are reduced to the predicaments and to those things which follow after the predicaments. For the quality of habit is in the predicament of quality: quantity however in the predicament of quantity. Those things however which are around the body, are in the predicament of habit. That however which is in a part, or as a part in a whole, or as the thing contained in the container, is reduced to the predicament of 'where', or to the predicament of position. Possession however or having a wife, is reduced to the predicament of habit according to extrinsic denomination or to relation. Thus therefore concerning all things which pertain to the logic of the predicaments, it has been determined.

or a tunic: which all are mutated to the one having it, and do not mutate him, as Augustine says, and next to this mode is that which is had for decor, as that which surrounds a member, just as a ring is had on a finger. Moreover in another

mode it is said as a whole has parts especially organic which are to an act, as a hand, or a foot, when hands and feet are had for use. It is also said to have according as in a vessel measuring quantity and containing, as someone is said to have a grain of wheat in a modius, or as someone is said to have wine in a flagon: for wine we are said to have in a flagon, and grains of wheat in a modius, because the flagon contains and measures the wine, and the modius the wheat.

These therefore all are said in a diverse mode for diverse ones to have, and by diverse ones according to all things. This is one mode of predicating. It is also said in another mode to have through the mode by which possession is had, as a house and a field we are said to have: and this is a special mode of having and very proper. Moreover it is said to have as a man is said to have a wife, or a wife a man, by mutual contract between man and wife. But this mode which has been said, seems most alien among all the modes of having which have been said: for we say nothing else that a man has a wife, except because they cohabit simultaneously to civil and economic acts: and in this mode the having is had in the same mode by which it has: and through the same contract the one who has is made had, and this is not in any other of the modes. Perhaps however still will appear other modes of that which is to have: but those which most are accustomed to be said and are used among the wise are these, which almost all are enumerated: and if there are any others, they are reduced to these.

But the modes of having which have been said, are thus taken. For in all the having in some mode is the principle of the had, and the had is to the nature of the having, when it is properly had: therefore either according to nature it is the principle, or according to will, or simultaneously according to nature and will. For if the principle is according to nature, either it is according to a quality of which nature is the principle, and thus is the first mode, or according to quantity, and thus is the second mode. Nor are there more according to nature: because since the having differs from the had, it behooves that substance be the having and quality or quantity be had. But other predicaments do not predicate anything absolute. But if nature with will is the principle, then is the fifth mode, in which a member is had by nature: but sight is referred to the will. But if will alone is the principle, then it is in respect of an extrinsic principle which extrinsically has itself to the having: either therefore the had having is from itself which it has, or not: if thus, it is then the eighth mode: if not, and it is of extrinsic things: or therefore the had is mutated to the form of the having, or not. If thus: either it is to necessity, or to decor. If it is to necessity: then is the third mode. If it is to decor: then is the fourth mode. But if the had is mutated to the having: either the had is had through the mode of the contained, as in a measuring vessel: or through the mode of habit only. If through the mode of the contained: then is the ninth mode. If in the second mode: then is the seventh mode.

But in many other modes the number of the modes of having can be accepted: but because there is small force in such, therefore let these suffice.