Book IV (Γ)

1003a22-1003a32 § 1 · There is a science which investigates being as being and the attributes which belong to this in virtue of its own nature. Now this is not the same as any of the so-called special sciences; for none of these others deals generally with being as being. They cut off a part of being and investigate the attributes of this part—this is what the mathematical sciences for instance do. Now since we are seeking the first principles and the highest causes, clearly there must be some thing to which these belong in virtue of its own nature. If then our predecessors who sought the elements of existing things were seeking these same principles, it is necessary that the elements must be elements of being not by accident but just because it *is* being. Therefore it is of being as being that we also must grasp the first causes.

1003a33-1003b18 § 2 · There are many senses in which a thing may be said to 'be', but they are related to one central point, one definite kind of thing, and are not homonymous. Everything which is healthy is related to health, one thing in the sense that it preserves health, another in the sense that it produces it, another in the sense that it is a symptom of health, another because it is capable of it. And that which is medical is relative to the medical art, one thing in the sense that it possesses it, another in the sense that it is naturally adapted to it, another in the sense that it is a function of the medical art. And we shall find other words used similarly to these. So, too, there are many senses in which a thing is said to be, but all refer to one starting-point; some things are said to be because they are substances, others because they are affections of substance, others because they are a process towards substance, or destructions or privations or qualities of substance, or productive or generative of substance, or of things which are relative to substance, or negations of some of these things or of substance itself. It is for this reason that we say even of non-being that it *is* non-being. As, then, there is one science which deals with all healthy things, the same applies in the other cases also. For not only in the case of things which have one common notion does the investigation belong to one science, but also in the case of things which are related to one common nature; for even these in a sense have one common notion. It is clear then that it is the work of one science also to study all things that are, *qua* being.—But everywhere science deals chiefly with that which is primary, and on which the other things

depend, and in virtue of which they get their names. If, then, this is substance, it is of substances that the philosopher must grasp the principles and the causes.

Now for every single class of things, as there is one perception, so there is one science, as for instance grammar, being one science, investigates all articulate sounds. Therefore to investigate all the species of being *qua* being, is the work of a science which is generically one, and to investigate the several species is the work of the specific parts of the science. 1003b19-1003b22

If, now, being and unity are the same and are one thing in the sense that they are implied in one another as principle and cause are, not in the sense that they are explained by the same formula (though it makes no difference even if we interpret them similarly—in fact this would strengthen our case); for one man and a man are the same thing and existent man and a man are the same thing, and the doubling of the words in 'one man' and 'one existent man' does not give any new meaning (it is clear that they are not separated either in coming to be or in ceasing to be); and similarly with 'one', so that it is obvious that the addition in these cases means the same thing, and unity is nothing apart from being; and if, further, the essence of each thing is one in no merely accidental way, and similarly is from its very nature something that *is:*—all this being so, there must be exactly as many species of being as of unity. And to investigate the essence of these is the work of a science which is generically one—I mean, for instance, the discussion of the same and the similar and the other concepts of this sort; and nearly all contraries are referred to this source; but let us take them as having been investigated in the 'Selection of Contraries'.—And there are as many parts of philosophy as there are kinds of substance, so that there must necessarily be among them a first philosophy and one which follows this. For being falls immediately into genera; and therefore the sciences too will correspond to these genera. For 'philosopher' is like 'mathematician'; for mathematics also has parts, and there is a first and a second science and other successive ones within the sphere of mathematics. 1003b23-1004a9

Now since it is the work of one science to investigate opposites, and plurality is opposite to unity, and it belongs to one science to investigate the negation and the privation because in both cases we are really investigating unity, to which the negation or the privation refers (for we either say simply that unity is not present, or that it is not present in some particular class; in the latter case the characteristic difference of the class modifies the meaning of 'unity', as compared with the meaning conveyed in the bare negation; for the negation means just the absence of unity, while in privation there is also implied an underlying nature of which the privation is predicated),—in view of all these facts, the contraries of the concepts we named above, the other and the dissimilar and the unequal, and 1004a10-1004a31

everything else which is derived either from these or from plurality and unity, must fall within the province of the science above-named.—And contrariety is one of these concepts, for contrariety is a kind of difference, and difference is a kind of otherness. Therefore, since there are many senses in which a thing is said to be one, these terms also will have many senses, but yet it belongs to one science to consider them all; for a term belongs to different sciences not if it has different senses, but if its definitions neither are identical nor can be referred to one central meaning. And since all things are referred to that which is primary, as for instance all things which are one are referred to the primary one, we must say that this holds good also of the same and the other and of contraries in general; so that after distinguishing the various senses of each, we must then explain by reference to what is primary in each term, saying how they are related to it; some in the sense that they possess it, others in the sense that they produce it, and others in other such ways.

1004a32-1004a34 It is evident then that it belongs to one science to be able to give an account of these concepts as well as of substance. This was one of the questions in our book of problems.

1004a35-1004b26 And it is the function of the philosopher to be able to investigate all things. For if it is not the function of the philosopher, who is it who will inquire whether Socrates and Socrates seated are the same thing, or whether one thing has one contrary, or what contrariety is, or how many meanings it has? And similarly with all other such questions. Since, then, these are essential modifications of unity *qua* unity and of being *qua* being, not *qua* numbers or lines or fire, it is clear that it belongs to this science to investigate both the essence of these concepts and their properties. And those who study these properties err not by leaving the sphere of philosophy, but by forgetting that substance, of which they have no correct idea, is prior to these other things. For number *qua* number has peculiar attributes, such as oddness and evenness, commensurability and equality, excess and defect, and these belong to numbers either in themselves or in relation to one another. And similarly the solid and the motionless and that which is in motion and the weightless and that which has weight have other peculiar properties. So too certain properties are peculiar to being as such, and it is about these that the philosopher has to investigate the truth.—An indication of this may be mentioned:—dialecticians and sophists assume the same guise as the philosopher, for sophistic is philosophy which exists only in semblance, and dialecticians embrace all things in their dialectic, and being is common to all things; but evidently their dialectic embraces these subjects because these are proper to philosophy.—For sophistic and dialectic turn on the same class of things as philosophy, but this differs from dialectic in

the nature of the faculty required and from sophistic in respect of the purpose of the philosophic life. Dialectic is merely critical where philosophy claims to know, and sophistic is what appears to be philosophy but is not.

Again, in the list of contraries one of the two columns is privative, and all contraries are referred to being and nonbeing, and to unity and plurality, as for instance rest belongs to unity and movement to plurality. And nearly all thinkers agree that being and substance are composed of contraries; at least all name contraries as their first principles—some name odd and even, some hot and cold, some limit and the unlimited, some love and strife. And everything else is evidently referred to unity and plurality (this reference we must take for granted), and the principles stated by other thinkers fall entirely under these as their genera. It is obvious then from these considerations too that it belongs to one science to examine being *qua* being. For all things are either contraries or composed of contraries, and unity and plurality are the starting-points of all contraries. And these belong to one science, whether they have or have not one common notion. Probably they have not; yet even if 'one' has several meanings, the other meanings will be related to the primary meaning—and similarly in the case of the contraries.—And if being or unity is not a universal and the same in every instance, or is not separable from the particular instances (as in fact it probably is not; the unity is in some cases that of common reference, in some cases that of serial succession),—just for this reason it does not belong to the geometer to inquire what is contrariety or completeness or being or unity or the same or the other, but only to presuppose these concepts.—Obviously then it is the work of one science to examine being *qua* being, and the attributes which belong to it *qua* being, and the same science will examine not only substances but also their attributes, both those above named and what is prior and posterior, genus and species, whole and part, and the others of this sort. 1004b27-1005a18

§ 3 · We must state whether it belongs to one or to different sciences to inquire into the truths which are in mathematics called axioms, and into substance. Evidently the inquiry into these also belongs to one science, and that the science of the philosopher; for these truths hold good for everything that is, and not for some special genus apart from others. And all men use them, for they are true of being *qua* being, and each genus has being. But men use them just so far as to satisfy their purposes; that is, as far as the genus, whose attributes they are proving, extends. Therefore since these truths clearly hold good for all things *qua* being (for this is what is common to them), he who studies being *qua* being will inquire into them too.—And for this reason no one who is conducting a special 1005a19-1005b8

inquiry tries to say anything about their truth or falsehood,—neither the geometer nor the arithmetician. Some natural philosophers indeed have done so, and their procedure was intelligible enough; for they thought that they alone were inquiring about the whole of nature and of being. But since there is one kind of thinker who is even above the natural philosopher (for nature is only one particular genus of being), the discussion of these truths also will belong to him whose inquiry is universal and deals with primary substance. Natural science also is a kind of wisdom, but it is not the first kind.—And the attempts of some who discuss the terms on which truth should be accepted, are due to a want of training in logic; for they should know these things already when they come to a special study, and not be inquiring into them while they are pursuing it.—Evidently then the philosopher, who is studying the nature of all substance, must inquire also into the principles of deduction.

1005b9-1005b33 But he who knows best about each genus must be able to state the most certain principles of his subject, so that he whose subject is being *qua* being must be able to state the most certain principles of all things. This is the philosopher, and the most certain principle of all is that regarding which it is impossible to be mistaken; for such a principle must be both the best known (for all men may be mistaken about things which they do not know), and non-hypothetical. For a principle which every one must have who knows anything about being, is not a hypothesis; and that which every one must know who knows anything, he must already have when he comes to a special study. Evidently then such a principle is the most certain of all; which principle this is, we proceed to say. It is, that the same attribute cannot at the same time belong and not belong to the same subject in the same respect; we must presuppose, in face of dialectical objections, any further qualifications which might be added. This, then, is the most certain of all principles, since it answers to the definition given above. For it is impossible for any one to believe the same thing to be and not to be, as some think Heraclitus says; for what a man says he does not necessarily believe. If it is impossible that contrary attributes should belong at the same time to the same subject (the usual qualifications must be presupposed in this proposition too), and if an opinion which contradicts another is contrary to it, obviously it is impossible for the same man at the same time to believe the same thing to be and not to be; for if a man were mistaken in this point he would have contrary opinions at the same time. It is for this reason that all who are carrying out a demonstration refer it to this as an ultimate belief; for this is naturally the starting-point even for all the other axioms.

1005b34-1006a11 § 4 · There are some who, as we have said, both themselves assert that it is

possible for the same thing to be and not to be, and say that people can judge this to be the case. And among others many writers about nature use this language. But we have now posited that it is impossible for anything at the same time to be and not to be, and by this means have shown that this is the most indisputable of all principles.—Some indeed demand that even this shall be demonstrated, but this they do through want of education, for not to know of what things one may demand demonstration, and of what one may not, argues simply want of education. For it is impossible that there should be demonstration of absolutely everything; there would be an infinite regress, so that there would still be no demonstration. But if there are things of which one should not demand demonstration, these persons cannot say what principle they regard as more indemonstrable than the present one.

We can, however, demonstrate negatively even that this view is impossible, 1006a12-1006a28
if our opponent will only say something; and if he says nothing, it is absurd to attempt to reason with one who will not reason about anything, in so far as he refuses to reason. For such a man, as such, is seen already to be no better than a mere plant. Now negative demonstration I distinguish from demonstration proper, because in a demonstration one might be thought to be assuming what is at issue, but if another person is responsible for the assumption we shall have negative proof, not demonstration. The starting-point for all such arguments is not the demand that our opponent shall say that something either is or is not (for this one might perhaps take to be assuming what is at issue), but that he shall say something which is significant both for himself and for another; for this is necessary, if he really is to say anything. For, if he means nothing, such a man will not be capable of reasoning, either with himself or with another. But if any one grants this, demonstration will be possible; for we shall already have something definite. The person responsible for the proof, however, is not he who demonstrates but he who listens; for while disowning reason he listens to reason. And again he who admits this has admitted that something is true apart from demonstration [so that not everything will be 'so and not so'.][9]

First then this at least is obviously true, that the word 'be' or 'not be' has a 1006a29-1006b18
definite meaning, so that not everything will be so and not so.—Again, if 'man' has one meaning, let this be 'two-footed animal'; by having one meaning I understand this: if such and such is a man, then if anything is a man, that will be what being a man is. And it makes no difference even if one were to say a word has several meanings, if only they are limited in number; for to each formula there might

[9]Excised by Ross.

be assigned a different word. For instance, we might say that 'man' has not one meaning but several, one of which would be defined as 'two-footed animal', while there might be also several other formulae if only they were limited in number; for a special name might be assigned to each of the formulae. If, however, they were not limited but one were to say that the word has an infinite number of meanings, obviously reasoning would be impossible; for not to have one meaning is to have no meaning, and if words have no meaning reasoning with other people, and indeed with oneself has been annihilated; for it is impossible to think of anything if we do not think of one thing; but if this *is* possible, one name might be assigned to this thing. Let it be assumed then, as was said at the beginning, that the name has a meaning and has one meaning; it is impossible, then, that being a man should mean precisely not being a man, if 'man' is not only predicable of one subject but also has one meaning (for we do not identify 'having one meaning' with 'being predicable of one subject', since on that assumption even 'musical' and 'white' and 'man' would have had one meaning, so that all things would have been one; for they would all have been synonymous).

1006b19-1006b34 And it will not be possible for the same thing to be and not to be, except in virtue of an ambiguity, just as one whom we call 'man,' others might call 'not-man'; but the point in question is not this, whether the same thing can at the same time be and not be a man in name, but whether it can in fact. Now if 'man' and 'not-man' mean nothing different, obviously 'not being a man' will mean nothing different from 'being a man'; so that being a man will be not being a man; for they will be one. For being one means this—what we find in the case of 'raiment' and 'dress'—viz. that the definitory formula is one. And if 'being a man' and 'not being a man' are to be one, they must mean one thing. But it was shown earlier that they mean different things. Therefore, if it is true to say of anything that it is a man, it must be a two-footed animal; for this was what 'man' meant; and if this is necessary, it is impossible that the same thing should not be a two-footed animal; for this is what 'being necessary' means—that it is impossible for the thing not to be. It is, then, impossible that it should be at the same time true to say the same thing is a man and is not a man.

1007a1-1007a8 The same account holds good with regard to not being man, for 'being man' and 'being not-man' mean different things, since even 'being white' and 'being man' are different; for the former terms are much more opposed, so that they must mean different things. And if any one says that *'white'* means one and the same thing as 'man', again we shall say the same as what was said before, that it would follow that *all* things are one, and not only opposites. But if this is impossible, then what has been said will follow, if our opponent answers our question.

And if, when one asks the question simply, he adds the contradictories, he is not answering the question. For there is nothing to prevent the same thing from being both man and white and countless other things: but still if one asks whether it is true to call this a man or not our opponent must give an answer which means one thing, and not add that it is also white and large. For, besides other reasons, it is impossible to enumerate the accidents, which are infinite in number; let him, then, enumerate either all or none. Similarly, therefore, even if the same thing is a thousand times man and not-man, we must not add, in answering the question whether this is a man, that it is also at the same time not a man, unless we are bound to add also all the other accidents, all that the subject is or is not; and if we do this, we are not observing the rules of argument. 1007a9-1007a20

And in general those who use this argument do away with substance and essence. For they must say that all attributes are accidents, and that there is no such thing as being essentially man or animal. For if there is to be any such thing as being essentially man this will not be being not-man or not being man (yet these are negations of it); for there was some one thing which it meant, and this was the substance of something. And denoting the substance of a thing means that the essence of the thing is nothing else. But if its being essentially man is to be the same as either being essentially not-man or essentially not being man, then its essence *will* be something else. Therefore our opponents must say that there cannot be such a definition of anything, but that all attributes are accidental; for this is the distinction between substance and accident—white is accidental to man, because though he is white, whiteness is not his essence. But if *all* statements are accidental, there will be nothing primary about which they are made, if the accidental always implies predication about a subject. The predication, then, must go on *ad infinitum*. But this is impossible; for not even more than two terms can be combined. For an accident is not an accident of an accident, unless it be because both are accidents of the same subject. I mean, for instance, the white is musical and the latter is white, only because both are accidental to man. But Socrates is musical, not in this sense, that both terms are accidental to something else. Since then some predicates are accidental in this and some in that sense, those which are accidental in the latter sense, in which white is accidental to Socrates, cannot form an infinite series in the upward direction,—e.g. Socrates the white has not yet another accident; for no unity can be got out of such a sum. Nor again will white have another term accidental to it, e.g. musical. For this is no more accidental to that than that is to this; and at the same time we have drawn the distinction, that while some predicates are accidental in this sense, others are so in the sense in which musical is accidental to Socrates; and the accident is an accident of an 1007a21-1007b18

accident not in cases of the latter kind, but only in cases of the other kind, so that not *all* terms will be accidental. There must, then, even in this case be something which denotes substance. And it has been shown that, if this is so, contradictories cannot be predicated at the same time.

1007b19-1008a7 Again, if all contradictories are true of the same subject at the same time, evidently all things will be one. For the same thing will be a trireme, a wall, and a man, if it is equally possible to affirm and to deny anything of anything,—and this premise must be accepted by those who share the views of Protagoras. For if any one thinks that the man is not a trireme, evidently he is not a trireme; so that he also is a trireme, if, as they say, the contradictory is true. And we thus get the doctrine of Anaxagoras, that all things are mixed together; so that nothing really exists. They seem, then, to be speaking of the indeterminate, and, while fancying themselves to be speaking of being, they are speaking about non-being; for that which exists potentially and not actually is the indeterminate. But they must predicate of every subject every attribute and the negation of it indifferently. For it is absurd if of every subject its own negation is to be predicable, while the negation of something else which cannot be predicated of it is not predicable of it; for instance, if it is true to say of a man that he is not a man, evidently it is also true to say that he is either a trireme or not a trireme. If, then, the affirmative can be predicated, the negative must be predicable too; and if the affirmative is not predicable, the negative, at least, will be more predicable than the negative of the subject itself. If, then, even the latter negative is predicable, the negative of 'trireme' will be also predicable; and, if this is predicable, the affirmative will be so too.—Those, then, who maintain this view are driven to this conclusion, and to the further conclusion that it is not necessary either to assert or to deny. For if it is true that a thing is man and not-man, evidently also it will be neither man nor not-man. For to the two assertions there answer two negations. And if the former is treated as a single proposition compounded out of two, the latter also is a single proposition opposite to the former.

1008a8-1008a28 Again, either the theory is true in all cases, and a thing is both white and not-white, and being and not-being, and all other contradictories are similarly compatible, or the theory is true of some statements and not of others. And if not of all, the exceptions will be agreed upon; but if of all, again either the negation will be true wherever the assertion is, and the assertion true wherever the negation is, or the negation will be true where the assertion is, but the assertion not always true where the negation is. And in the latter case there will be something which fixedly *is not,* and this will be an indisputable belief; and if non-being is indisputable and knowable, the opposite assertion will be more knowable. But if what it is neces-

sary to deny it is equally necessary to assert, it is either true or not true to separate the predicates and say, for instance, that a thing is white, and again that it is not-white. And if it is not true to apply the predicates separately, our opponent is not really applying them, and nothing at all exists; but how could non-existent things speak or walk, as he does? Also all things will on this view be one, as has been already said, and man and God and trireme and their contradictories will be the same. For if contradictories can be predicated alike of each subject, one thing will in no wise differ from another; for if it differ, this difference will be something true and peculiar to it. And if one may with truth apply the predicates separately, the above-mentioned result follows none the less.

Further, it follows that all would then be right and all would be in error, and 1008a29-1008b2
our opponent himself confesses himself to be in error.—And at the same time our discussion with him is evidently about nothing at all; for he says nothing. For he says neither 'yes' nor 'no', but both 'yes' and 'no'; and again he denies both of these and says 'neither yes nor no'; for otherwise there would already be something definite.—Again, if when the assertion is true, the negation is false, and when this is true, the affirmation is false, it will not be possible to assert and deny the same thing truly at the same time. But perhaps they might say we had assumed the very thing at issue.

Again, is he in error who judges either that the thing is so or that it is not 1008b3-1008b31
so, and is he right who judges both? If he is not right, what can they mean by saying that the nature of existing things is of this kind? And if he is not right, but more right than he who judges in the other way, being will already be of a definite nature, and this will be true, and not at the same time also not true. But if all are alike both right and wrong, one who believes this can neither speak nor say anything intelligible; for he says at the same time both 'yes' and 'no'. And if he makes no judgement but thinks and does not think, indifferently, what difference will there be between him and the plants?—Thus, then, it is in the highest degree evident that neither any one of those who maintain this view nor any one else is really in this position. For why does a man walk to Megara and not stay at home thinking he ought to walk? Why does he not walk early some morning into a well or over a precipice, if one happens to be in his way? Why do we observe him guarding against this, evidently not thinking that falling in is alike good and not good? Evidently he judges one thing to be better and another worse. And if this is so, he must judge one thing to be man and another to be not-man, one thing to be sweet and another to be not-sweet. For he does not aim at and judge all things alike, when, thinking it desirable to drink water or to see a man, he proceeds to aim at these things; yet he ought, if the same thing were alike man and not-man.

But, as was said, there is no one who does not obviously avoid some things and not others. Therefore, as it seems, all men make unqualified judgements, if not about all things, still about what is better and worse. And if this is not knowledge but opinion, they should be all the more anxious about the truth, as a sick man should be more anxious about his health than one who is healthy; for he who has opinions is, in comparison with the man who knows, not in a healthy state as far as the truth is concerned.

1008b32-1009a6 Again, however much all things may be so and not so, still there is a more and a less in the nature of things; for we should not say that two and three are equally even, nor is he who thinks four things are five equally wrong with him who thinks they are a thousand. If then they are not equally wrong, obviously one is less wrong and therefore more right. If then that which has more of any quality is nearer to it, there must be some truth to which the more true is nearer. And even if there is not, still there is already something more certain and true, and we shall have got rid of the unqualified doctrine which would prevent us from determining anything in our thought.

1009a7-1009a16 § 5 · Again, from the same opinion proceeds the doctrine of Protagoras, and both doctrines must be alike true or alike untrue. For on the one hand, if all opinions and appearances are true, all statements must be at the same time true and false. For many men hold beliefs in which they conflict with one another, and all think those mistaken who have not the same opinions as themselves; so that the same thing must be and not be. And on the other hand, if this is so, all opinions must be true; for those who are mistaken and those who are right are opposed to one another in their opinions; if, then, reality is such as the view in question supposes, all will be right in their beliefs. Evidently, then, both doctrines proceed from the same way of thinking.

1009a17-1009a21 But the same method of discussion must not be used with all opponents; for some need persuasion, and others compulsion. Those who have been driven to this position by difficulties in their thinking can easily be cured of their ignorance; for it is not their expressed argument but their thought that one has to meet. But those who argue for the sake of argument can be convinced only by emending the argument as expressed in words.

1009a22-1009a38 Those who really feel the difficulties have been led to this opinion by observation of the sensible world. They think that contradictions or contraries are true at the same time, because they see contraries coming into existence out of the same thing. If, then, that which is not cannot come to be, the thing must have existed before as both contraries alike, as Anaxagoras says all is mixed in all, and Dem-

ocritus too; for *he* says the void and the full exist alike in every part, and yet one of these is being, and the other non-being. To those, then, whose belief rests on these grounds, we shall say that in a sense they speak rightly and in a sense they err. For 'that which is' has two meanings, so that in some sense a thing can come to be out of that which is not, while in some sense it cannot, and the same thing can at the same time be and not be—but not in the same respect. For the same thing can be potentially at the same time two contraries, but it cannot actually. And again we shall ask them to believe that among existing things there is another kind of substance to which neither movement nor destruction nor generation at all belongs.

And similarly some have inferred from the sensible world the truth of appear- 1009b1-1009b38
ances. For they think that the truth should not be determined by the large or small number of those who hold a belief, and that the same thing is thought sweet by some who taste it, and bitter by others, so that if all were ill or all were mad, and only two or three were well or sane, these would be thought ill and mad, and not the others. And again, many of the other animals receive impressions contrary to ours; and even to the senses of each individual, things do not always seem the same. Which, then, of these impressions are true and which are false is not obvious; for the one set is no more true than the other, but both are alike. And this is why Democritus, at any rate, says that either there is no truth or to us at least it is not evident. And in general it is because these thinkers suppose knowledge to be sensation, and this to be a physical alteration, that they say that what appears to our senses must be true; for it is for these reasons that Empedocles and Democritus and, one may almost say, all the others have fallen victims to opinions of this sort. For Empedocles says that when men change their condition they change their knowledge;

> For wisdom increases in men according to their present state

And elsewhere he says:

> So far as their nature changes, so far to them always
> Come changed thoughts into mind.

And Parmenides also expresses himself in the same way:

> For as in each case the much-bent limbs are composed,
> So is the mind of men; for in each and all men
> 'Tis one thing thinks—the substance of their limbs:
> For that of which there is more is thought.

A saying of Anaxagoras to some of his friends is also related,—that things would be for them such as they supposed them to be. And they say that Homer also evidently had this opinion, because he made Hector, when he was unconscious from the blow, lie 'thinking other thoughts',—which implies that even those who are bereft of thought have thoughts, though not the same. Evidently, then, if both are forms of thought, the real things also are at the same time so and not so. And it is in this direction that the consequences are most difficult. For if those who have seen most of what truth is possible for us (and these are those who seek and love it most)—if these have such opinions and express these views about the truth, is it not natural that beginners in philosophy should lose heart? For to seek the truth would be to pursue flying game.

1010a1-1010a14 But the reason for this opinion is that while these thinkers were inquiring into the truth of that which is, they thought that which is was identical with the sensible world; in this, however, there is largely present the nature of the indeterminate of that which exists in the peculiar sense which we have explained; and, therefore, while they speak plausibly, they do not say what is true. For it befits us to put the matter so rather than as Epicharmus put it against Xenophanes. And again, they held these views because they saw that all this world of nature is in movement, and that about that which changes no true statement can be made; at least, regarding that which everywhere in every respect is changing nothing could truly be affirmed. It was this belief that blossomed into the most extreme of the views above mentioned, that of the professed Heracliteans, such as was held by Cratylus, who finally did not think it right to say anything but only moved his finger, and criticized Heraclitus for saying that it is impossible to step twice into the same river; for *he* thought one could not do it even once.

1010a15-1010a38 But we shall say in answer to this argument also, that there is some real sense in their thinking that the changing, when it is changing, does not exist. Yet it is after all disputable; for that which is losing a quality has something of that which is being lost, and of that which is coming to be, something must already be. And in general if a thing is perishing, there will be present something that exists; and if a thing is coming to be, there must be something from which it comes to be and something by which it is generated, and this process cannot be *ad infinitum*. But leaving these arguments, let us insist on this, that it is not the same thing to change in quantity and in quality. Grant that in quantity a thing is not constant; still it is in respect of its form that we know each thing.—And again, it would be fair to criticize those who hold this view for asserting about the whole material universe what they saw only in a minority even of sensible things. For only that region of the sensible world which immediately surrounds us is always in process

of destruction and generation; but this is—so to speak—not even a fraction of the whole, so that it would have been juster to acquit this part of the world because of the other part, than to condemn the other because of this. And again, obviously we shall make to them also the same reply that we made before; we must show them and persuade them that there is something whose nature is changeless. Indeed, from the assertion that things at the same time are and are not, there follows the assertion that all things are at rest rather than that they are in movement; for there is nothing into which they can change, since all attributes belong already to all subjects.

1010b1-1010b29

Regarding the nature of truth, we must maintain that not everything which appears is true. Firstly, even if sensation—at least of the object special to the sense in question—is not false; still appearance is not the same as sensation.—Again, it is fair to express surprise at our opponents for raising the question whether magnitudes are as great, and colours are of such a nature, as they appear to people at a distance, or as they appear to those close at hand, and whether they are such as they appear to the sick or to the healthy, and whether those things are heavy which appear so to the weak or those which appear so to the strong, and whether truth is what appears to the sleeping or to the waking. For obviously they do not think these to be open questions; no one, at least, if when he is in Libya he fancies one night that he is in Athens, straightway starts for the Odeum. And again with regard to the future, as Plato says, surely the opinion of the physician and that of the ignorant man are not equally weighty, for instance, on the question whether a man will get well or not.—And again, among sensations themselves the sensation of a foreign object and that of the special object, or that of a kindred object and that of the object of the sense in question, are not equally authoritative, but in the case of colour, sight, not taste, has the authority, and in the case of flavour, taste, not sight; each of which senses never says at the same moment of the same object that it at the same time is so and not so.—But not even at different moments does one sense disagree about the quality, but only about that to which the quality belongs. I mean, for instance, the same wine might seem, if either it or one's body changed, at one time sweet and at another time not sweet; but at least the sweet, such as it is when it exists, has never yet changed, but one is always right about it, and that which is to be sweet must of necessity be of such and such a nature. Yet all these views destroy this distinction, so that as there is no substance of anything, so nothing is of necessity; for the necessary cannot be in this way and also in that, so that if anything is of necessity, it will not be both so and not so.

1010b30-1011a2

And, in general, if only the sensible exists, there would be nothing if animate things were not; for there would be no faculty of sense. The view that neither the

objects of sensation nor the sensations would exist is doubtless true (for they are affections of the perceiver), but that the substrata which cause the sensation should not exist even apart from sensation is impossible. For sensation is surely not the sensation of itself, but there is something beyond the sensation, which must be prior to the sensation; for that which moves is prior in nature to that which is moved, and if they are correlative terms, this is no less the case.

1011a3-1011a13 § 6 · There are, both among those who have these convictions and among those who merely profess these views, some who raise a difficulty by asking, who is the judge of the healthy man, and in general who is likely to judge rightly on each class of questions. But such inquiries are like puzzling over the question whether we are now asleep or awake. And all such questions have the same meaning. These people demand that a reason shall be given for everything; for they seek a starting-point, and they wish to get this by demonstration, while it is obvious from their actions that they have no conviction. But their mistake is what we have stated it to be; they seek a reason for that for which no reason can be given; for the starting-point of demonstration is not demonstration.

1011a14-1011b12 These, then, might be easily persuaded of this truth, for it is not difficult to grasp; but those who seek merely compulsion in argument seek what is impossible; for they demand to be made to contradict themselves, while they are contradicting themselves from the very first.—But if not all things are relative, but some exist in their own right, not everything that appears will be true; for that which appears appears to some one; so that he who says all things that appear are true, makes all things relative. And, therefore, those who ask for an irresistible argument, and at the same time demand to be called to account for their views, must guard themselves by saying that the truth is not that what appears exists, but that what appears exists *for him to whom* it appears, and *when,* and *in the sense in which,* and *in the way in which* it appears. And if they give an account of their view, but do not give it in this way, they will soon find themselves contradicting themselves. For it is possible that a thing may for the same man appear as honey to the sight, but not to the taste, and that, as we have two eyes, things may not appear the same to each, if the eyes are unlike. For to those who for the reasons named above say that what appears is true, and therefore that all things are alike false and true, for things do not appear either the same to all men or always the same to the same man, but often have contrary appearances at the same time (for touch says there are two objects when we cross our fingers, while sight says there is one),—to these we shall say 'yes, but not to the same sense and in the same part of it and in the same way and at the same time', so that what appears *is* under these

qualifications true. But perhaps for this reason those who argue thus not because they feel a difficulty but for the sake of argument, should say that this is not true, but true for this man. And as has been already said, they must make everything relative—relative to thought and perception, so that nothing either has come to be or will be without some one's first thinking so. But if things *have* come to be or will be, evidently not all things will be relative to opinion.—Again, if a thing is one, it is in relation to one thing or to a definite number of things; and if the same thing is both half and equal, still the equal is not correlative to the double. In relation to that which thinks, then, if the same thing is a man, and is that which is thought, that which *thinks* will not be a man, but only that which *is thought*. Again, if each thing is to be relative to that which thinks, that which thinks will be relative to an infinity of specifically different things.

Let this, then, suffice to show that the most indisputable of all beliefs is that 1011b13-1011b22
contradictory statements are not at the same time true, and what consequences follow from the denial of this belief, and why people do deny it. Now since it is impossible that contradictories should be at the same time true of the same thing, obviously contraries also cannot belong at the same time to the same thing. For of the contraries, no less than of the contradictories, one is a privation—and a privation of substance; and privation is the denial of a predicate to a determinate genus. If, then, it is impossible to affirm and deny truly at the same time, it is also impossible that contraries should belong to a subject at the same time, unless both belong to it in particular relations, or one in a particular relation and one without qualification.

§ 7 · But on the other hand there cannot be an intermediate between contra- 1011b23-1012a17
dictories, but of one subject we must either affirm or deny any one predicate. This is clear, in the first place, if we define what the true and the false are. To say of what is that it is not, or of what is not that it is, is false, while to say of what is that it is, and of what is not that it is not, is true; so that he who says of anything that it is, or that it is not, will say either what is true or what is false; but neither what is nor what is not is said to be or not to be.—Again, either the intermediate between the contradictories will be so in the way in which grey is between black and white, or as that which is neither man nor horse is between man and horse. If it were of the latter kind, it could not change, for change is from not-good to good, or from good to not-good; but as a matter of fact it evidently always does, for there is no change except to opposites and to their intermediate. But if it is really intermediate, in this way too there is a difficulty—there would have to be a change to white, which was not from not-white; but as it is, this is never seen.—

Again, the understanding either affirms or denies every object of understanding or reason—this is obvious from the definition—whenever it is true or false. When it connects in one way by assertion or negation, it is true, and when it does so in the other way, it is false.—Again, there must be an intermediate between *all* contradictories, if one is not arguing merely for the sake of argument; so that it will be possible for a man to say what is neither true nor untrue. And there will be a middle between that which is and that which is not, so that there will also be a kind of change intermediate between generation and destruction.—Again, in all classes in which the negation of an attribute means the assertion of its contrary, even in these there will be an intermediate; for instance, in the sphere of numbers there will be number which is neither odd nor not-odd. But this is impossible, as is obvious from the definition.—Again, the process will go on *ad infinitum,* and the number of realities will be not only made half as great again, but even greater. For again it will be possible to deny this intermediate with reference both to its assertion and to its negation, and this new term will be some definite thing; for its substance is something different.—Again, when a man, on being asked whether a thing is white, says 'no', he has denied nothing except that it is; and its not being is a negation.

1012a18-1012a28 Some people have acquired this opinion as other paradoxical opinions have been acquired; when men cannot refute eristical arguments, they give in to the argument and agree that the conclusion is true. This, then, is why some argue in such fashion; others do so because they demand a reason for everything. And the starting-point in dealing with all such people is definition. Now the definition rests on the necessity of their meaning something; for the formula, of which the word is a sign, becomes its definition.—The doctrine of Heraclitus, that all things are and are not, seems to make everything true, while that of Anaxagoras, that there is an intermediate between the terms of a contradiction, seems to make everything false; for when things are mixed, the mixture is neither good nor not-good, so that one cannot say anything that is true.

1012a29-1012b22 § 8 · In view of these distinctions it is obvious that the one-sided theories which some people express about all things cannot be valid—on the one hand the theory that nothing is true (for, they say, there is nothing to prevent every statement from being like the statement 'the diagonal of a square is commensurate with the side'), on the other hand the theory that everything is true.—These views are practically the same as that of Heraclitus; for that which says that all things are true and all are false also makes each of these statements separately, so that since they are impossible, the double statement must be impossible too.—Again, there are

obviously contradictories which cannot be at the same time true. Nor on the other hand can all statements be false; yet this would *seem* more possible in view of what has been said.—But against all such arguments we must postulate, as we said above, not that something is or is not, but that people mean something, so that we must argue from a definition, having got what falsity or truth means. If that which it is true to affirm is nothing other than that which it is false to deny, it is impossible that all statements should be false; for one side of the contradiction must be true.—Again, if it is necessary with regard to everything either to assert or to deny it, it is impossible that both should be false; for it is *one* side of the contradiction that is false.—Further, all such arguments are exposed to the often-expressed objection, that they destroy themselves. For he who says that everything is true makes the statement contrary to his own also true, so that his own is not true (for the contrary statement denies that it is true), while he who says everything is false makes himself also false.—And if the former person excepts the contrary statement, saying it alone is not true, while the latter excepts his own as being alone not false, none the less they are driven to postulate the truth or falsehood of an infinite number of statements; for that which says the true statement is true, is true, and this process will go on to infinity.

Evidently again those who say all things are at rest are not right, nor are those who say all things are in movement. For if all things are at rest, the same statements will always be true and the same always false,—but they obviously are not; for he who makes a statement himself at one time was not and again will not be. And if all things are in motion, nothing will be true; everything therefore will be false. But it has been shown that this is impossible. Again, it must be that which is that changes; for change is from something to something. But again it is not the case that all things are at rest or in motion *sometimes,* and nothing *for ever;* for there is something which always moves the things that are in motion, and the first mover must itself be unmoved. 1012b23-1012b32