equal parts in a finite quantity—which is impossible. Another proof may be added: since every body must diminish in size when something is taken from it, and flesh is quantitatively definite in respect both of greatness and smallness, it is clear that from the minimum quantity of flesh no body can be separated out; for the flesh left would be less than the minimum of flesh.

Again, in each of his infinite bodies there would be already present infinite flesh and blood and brain—having a distinct existence, however, from one another, and no less real than the infinite bodies, and each infinite: which is contrary to reason.

The statement that complete separation never will take place is correct enough, though Anaxagoras is not fully aware of what it means. For affections are indeed inseparable. If then colours and states had entered into the mixture, and if separation took place, there would be something white or healthy which was nothing but white or healthy, i.e. was not the predicate of a subject. So his Mind absurdly aims at the impossible, if it is supposed to wish to separate them, and it is impossible to do so, both in respect of quantity and of quality—of quantity, because there is no minimum magnitude, and of quality, because affections are inseparable.

Nor is Anaxagoras right about the coming to be of homogeneous bodies. It is true there is a sense in which clay is divided into pieces of clay, but there is another in which it is not. Water and air are, and are generated, from each other, but not in the way in which bricks come from a house and again a house from bricks. And it is better to assume a smaller and finite number of principles, as Empedocles does.

All thinkers then agree in making the contraries principles, both those who describe the universe as one and unmoved (for even Parmenides treats hot and cold as principles under the names of fire and earth) and those too who use the rare and the dense. The same is true of Democritus also, with his plenum and void, both of which exist, he says, the one as being, the other as not being. Again he speaks of differences in position, shape, and order, and these are genera of which the species are contraries, namely, of position, above and below, before and behind; of shape, angular and angle-less, straight and round.

It is plain then that they all in one way or another identify the contraries with the principles. And with good reason. For first principles must not be derived from one another nor from anything else, while everything has to be derived from them. But these conditions are fulfilled by the primary contraries, which are not derived from anything else because they are primary, nor from each other because they are contraries.

But we must see how this can be arrived at as a reasoned result. Our first presupposition must be that in nature nothing acts on, or is acted on by, any other thing at random, nor may anything come from anything else, unless we mean that it does so accidentally. For how could white come from musical, unless musical

1 Retaining the MS text. Ross reads: κεχωρισμένα μίν τοις ἄπερ λόχλων (οὐ) ('not, however, separated from one another').
happened to be an attribute of the not-white or of the black? No, white comes from
not-white—and not from any not-white, but from black or some intermediate.
Similarly, musical comes to be from non-musical, but not from any thing other than
musical, but from unmusical or any intermediate state there may be.

Nor again do things pass away into the first chance thing; white does not pass
into musical (except, it may be, accidentally), but into not-white—and not into any
chance thing which is not white, but into black or an intermediate; musical passes
into not-musical—and not into any chance thing other than musical, but into
unmusical or any intermediate state there may be.

The same holds of other things also: even things which are not simple but
complex follow the same principle, but the opposite state has not received a name, so
we fail to notice the fact. For what is in tune must come from what is not in tune,
and vice versa; the tuned passes into untunedness—and not into any untunedness,
but into the corresponding opposite. It does not matter whether we take attunement,
order, or composition for our illustration; the principle is obviously the same in all,
and in fact applies equally to the production of a house, a statue, or anything else. A
house comes from certain things in a certain state of separation instead of
conjunction, a statue (or any other thing that has been shaped) from shapelessness—
each of these objects being partly order and partly composition.

If then this is true, everything that comes to be or passes away comes from, or
passes into, its contrary or an intermediate state. But the intermediates are derived
from the contraries—colours, for instance, from black and white. Everything,
therefore, that comes to be by a natural process is either a contrary or a product of
contraries.

Up to this point we have practically had most of the other writers on the
subject with us, as I have said already; for all of them identify their elements, and
what they call their principles, with the contraries, giving no reason indeed for the
theory, but constrained as it were by the truth itself. They differ, however, from one
another in that some assume contraries which are prior, others contraries which are
posterior; some those more knowable in the order of explanation, others those more
familiar to sense. For some make hot and cold, or again moist and dry, the causes of
becoming; while others make odd and even, or again Love and Strife; and these
differ from each other in the way mentioned.

Hence their principles are in one sense the same, in another different; different
certainly, as indeed most people think, but the same inasmuch as they are
analogous; for all are taken from the same table of columns, some of the pairs being
wider, others narrower in extent. In this way their theories are both the same
and different, some better, some worse; some, as I have said, take as their contraries
what is more knowable in the order of explanation, others what is more familiar to
sense. (The universal is knowable in the order of explanation, the particular in the
order of sense; for explanation has to do with the universal, sense with the
particular.) The great and the small, for example, belong to the former class, the
dense and the rare to the latter.

It is clear then that our principles must be contraries.
6. The next question is whether the principles are two or three or more in number.

One they cannot be; for there cannot be one contrary. Nor can they be innumerable, because, if so, what is will not be knowable; and in any one genus there is only one contrariety, and substance is one genus; also a finite number is sufficient, and a finite number, such as the principles of Empedocles, is better than an infinite multitude; for Empedocles professes to obtain all that Anaxagoras obtains from his innumerable principles. Again, some contraries are prior to others, and some arise from others—for example sweet and bitter, white and black—whereas the principles must always remain principles.

This will suffice to show that the principles are neither one nor innumerable.

Granted, then, that they are a limited number, it is plausible to suppose them more than two. For it is difficult to see how either density should be of such a nature as to act in any way on rarity or rarity on density. The same is true of any other pair of contraries; for Love does not gather Strife together and make things out of it, nor does Strife make anything out of Love, but both act on a third thing different from both. Some indeed assume more than one such thing from which they construct the world of nature.

Other objections to the view that it is not necessary to posit some other nature under the contraries may be added. We do not find that the contraries constitute the substance of any thing. But what is a first principle ought not to be predicated of any subject. If it were, there would be a principle of the supposed principle; for the subject is a principle, and prior presumably to what is predicated of it. Again, we hold that a substance is not contrary to another substance. How then can substance be derived from what are not substances? Or how can non-substance be prior to substance?

If then we accept both the former argument and this one, we must, to preserve both, posit some third thing, such as is spoken of by those who describe the universe as one nature—water or fire or what is intermediate between them. What is intermediate seems preferable; for fire, earth, air, and water are already involved with pairs of contraries. There is, therefore, much to be said for those who make the underlying substance different from these four; of the rest, the next best choice is air, as presenting sensible differences in a less degree than the others; and after air, water. All, however, agree in this, that they differentiate their One by means of the contraries, such as density and rarity and more and less, which may of course be generalized, as has already been said, into excess and defect. Indeed this doctrine too (that the One and excess and defect are the principles of things) would appear to be of old standing, though in different forms; for the early thinkers made the two the active and the one the passive principle, whereas some of the more recent maintain the reverse.

To suppose then that the elements are three in number would seem, from these and similar considerations, a plausible view, as I said before. On the other hand, the view that they are more than three in number would seem to be untenable.
For one thing is sufficient to be acted on; but if we have four contraries, there
will be two contrarieties, and we shall have to suppose an intermediate nature for
each pair separately. If, on the other hand, the contrarieties, being two, can
generate from each other, the second contrariety will be superfluous. Moreover, it is
impossible that there should be more than one primary contrariety. For substance is
a single genus of being, so that the principles can differ only as prior and posterior,
not in genus; for in a single genus there is always a single contrariety, all the other
contrarieties in it being held to be reducible to one.

It is clear then that the number of elements is neither one nor more than two or
three; but whether two or three is, as I said, a question of considerable difficulty.

7. We will now give our own account, approaching the question first with
reference to becoming in its widest sense; for we shall be following the natural order
of inquiry if we speak first of common characteristics, and then investigate the
characteristics of special cases.

We say that 'one thing comes to be from another thing, and something from
something different, in the case both of simple and of complex things. I mean the
following. We can say the man becomes musical, or what is not-musical becomes
musical, or the not-musical man becomes a musical man. Now what becomes in the
first two cases—man and not-musical—I call simple, and what each becomes—
musical—simple also. But when we say the not-musical man becomes a musical
man, both what becomes and what it becomes are complex.

In some cases, we say not only this becomes so-and-so, but also from being this,
it comes to be so-and-so (e.g.: from being not-musical he comes to be musical); but
we do not say this in all cases, as we do not say from being a man he came to be
musical but only the man became musical.

When a simple thing is said to become something, in one case it survives
through the process, in the other it does not. For the man remains a man and is such
even when he becomes musical, whereas what is not musical or is unmusical does
not survive, either simply or combined with the subject.

These distinctions drawn, one can gather from surveying the various cases of
becoming in the way we are describing that there must always be an underlying
something, namely that which becomes, and that this, though always one
numerically, in form at least is not one. (By 'in form' I mean the same as 'in
account'.) For to be a man is not the same as to be unmusical. One part survives, the
other does not: what is not an opposite survives (for the man survives), but
not-musical or unmusical does not survive, nor does the compound of the two,
namely the unmusical man.

We speak of 'becoming that from this' instead of 'this becoming that' more in
the case of what does not survive the change—'becoming musical from unmusical',
not 'from man'—but we sometimes use the latter form of expression even of what
survives: we speak of a statue coming to be from bronze, not of the bronze becoming
a statue. The change, however, from an opposite which does not survive is described
in both ways, 'becoming that from this' or 'this becoming that'. We say both that
the unmusical becomes musical, and that from unmusical he becomes musical. And so both forms are used of the complex, ‘becoming a musical from an unmusical man’, and ‘an unmusical man becoming musical’.

Things are said to come to be in different ways. In some cases we do not use the expression ‘come to be’, but ‘come to be so-and-so’. Only substances are said to come to be without qualification.

Now in all cases other than substance it is plain that there must be something underlying, namely, that which becomes. For when a thing comes to be of such a quantity or quality or in such a relation, time, or place, a subject is always presupposed, since substance alone is not predicated of another subject, but everything else of substance.

But that substances too, and anything that can be said to be without qualification, come to be from some underlying thing, will appear on examination. For we find in every case something that underlies from which proceeds that which comes to be; for instance, animals and plants from seed.

Things which come to be without qualification, come to be in different ways: by change of shape, as a statue; by addition, as things which grow; by taking away, as the Hermes from the stone; by putting together, as a house; by alteration, as things which turn in respect of their matter.

It is plain that these are all cases of coming to be from some underlying thing.

Thus, from what has been said, whatever comes to be is always complex. There is, on the one hand, something which comes to be, and again something which becomes that—the latter in two senses, either the subject or the opposite. By the opposite I mean the unmusical, by the subject, man; and similarly I call the absence of shape or form or order the opposite, and the bronze or stone or gold the subject.

Plainly then, if there are causes and principles which constitute natural objects and from which they primarily are or have come to be—have come to be, I mean, what each is said to be in its substance, not what each is accidentally—plainly, I say, everything comes to be from both subject and form. For the musical man is composed in a way of man and musical: you can analyse it into the definitions of its elements. It is clear then that what comes to be will come to be from these elements.

Now the subject is one numerically, though it is two in form. (For there is the man, the gold—in general, the countable matter; for it is more of the nature of a ‘this’, and what comes to be does not come from it accidentally; the privation, on the other hand, and the contrariety are accidental.) And the form is one—the order, the art of music, or any similar predicate.

There is a sense, therefore, in which we must declare the principles to be two, and a sense in which they are three; a sense in which the contraries are the principles—say for example the musical and the unmusical, the hot and the cold, the tuned and the untuned—and a sense in which they are not, since it is impossible...

‘Ross excises ‘time’.
for the contraries to be acted on by each other. But this difficulty also is solved by
the fact that what underlies is different from the contraries; for it is itself not a
contrary. The principles therefore are, in a way, not more in number than the
contraries, but as it were two; nor yet precisely two, since there is a difference of
being, but three. For to be man is different from to be unmusical, and to be
unformed from to be bronze.

We have now stated the number of the principles of natural objects which are
subject to generation, and how the number is reached; and it is clear that there must
be something underlying the contraries, and that the contraries must be two. (Yet in
another way of putting it this is not necessary, as one of the contraries will serve to
effect the change by its absence and presence.)

The underlying nature can be known by analogy. For as the bronze is to the
statue, the wood to the bed, or the matter and the formless before receiving form to
any thing which has form, so is the underlying nature to substance, i.e. the ‘this’ or
existent.

This then is one principle (though not one or existent in the same sense as the
‘this’): one is the form or definition,⁵ then further there is its contrary, the privation.
In what sense these are two, and in what sense more, has been stated above. We
explained first that only the contraries were principles, and later that something
else underlay them, and that the principles were three; our last statement has
elucidated the difference between the contraries, the mutual relation of the
principles, and the nature of what underlies. Whether the form or what underlies is
the substance is not yet clear. But that the principles are three, and in what sense,
and the way in which each is a principle, is clear.

So much then for the question of the number and the nature of the principles.

⁵Ross omits ‘the matter and’.
⁶Reading μία τὸ ἄθανατον ὑ ὁ λόγος (Bonitz).
from a doctor doing something or having something done to him, or being or becoming something from being a doctor. These expressions may be taken in two ways, and so too, clearly, may ‘from what is’, and ‘what is acts or is acted on’. A doctor builds a house, not qua doctor, but qua housebuilder, and turns gray, not qua doctor, but qua dark-haired. On the other hand he doctors or fails to doctor qua doctor. But we are using words most appropriately when we say that a doctor does something or undergoes something, or becomes something from being a doctor, if he does, undergoes, or becomes qua doctor. Clearly then also to come to be so-and-so from what is not means ‘qua what is not’.

It was through failure to make this distinction that those thinkers gave the matter up, and through this error that they went so much farther astray as to suppose that nothing else comes to be or exists apart from what is itself, thus doing away with all becoming.

We ourselves are in agreement with them in holding that nothing can be said without qualification to come from what is not. But nevertheless we maintain that a thing may come to be from what is not in a qualified sense, i.e. accidentally. For a thing comes to be from the privation, which in its own nature is something which is not—this not surviving as a constituent of the result. Yet this causes surprise, and it is thought impossible that something should come to be in the way described from what is not.

In the same way we maintain that nothing comes to be from what is, and that what is does not come to be except accidentally. In that way, however, it does, just as animal might come to be from animal, and an animal of a certain kind from an animal of a certain kind. Thus, suppose a dog to come to be from a dog, or a horse from a horse. The dog would then, it is true, come to be from animal (as well as from an animal of a certain kind) but not as animal, for that is already there. But if anything is to become an animal, not accidentally, it will not be from animal; and if what is, not from what is—nor from what is not either, for it has been explained that by ‘from what is not’ we mean qua what is not.

Note further that we do not subvert the principle that everything either is or is not.

This then is one way of solving the difficulty. Another consists in pointing out that the same things can be spoken of in terms of potentiality and actuality. But this has been done with greater precision elsewhere.3

So, as we said, the difficulties which constrain people to deny the existence of some of the things we mentioned are now solved. For it was this reason which also caused some of the earlier thinkers to turn so far aside from the road which leads to coming to be and passing away and change generally. If they had come in sight of this nature, all their ignorance would have been dispelled.

9. Others, indeed, have apprehended the nature in question, but not adequately.

3See Metaphysics 4 7, and 8.
In the first place they allow that a thing may come to be without qualification from what is not, accepting on this point the statement of Parmenides. Secondly, they think that if it is one numerically, it must have also only a single potentiality—which is a very different thing.

Now we distinguish matter and privation, and hold that one of these, namely the matter, accidentally is not, while the privation in its own nature is not; and that the matter is nearly, in a sense is, substance, while the privation in no sense is. They, on the other hand, identify their Great and Small alike with what is not, and that whether they are taken together as one or separately. Their triad is therefore of quite a different kind from ours. For they got so far as to see that there must be some underlying nature, but they make it one—for even if one philosopher makes a dyad of it, which he calls Great and Small, the effect is the same; for he overlooked the other nature. For the one which persists is a joint cause, with the form, of what comes to be—a mother, as it were. But the other part of the contrariety may often seem, if you concentrate your attention on it as an evil agent, not to exist at all.

For admitting that there is something divine, good, and desirable, we hold that there are two other principles, the one contrary to it, the other such as of its own nature to desire and yearn for it. But the consequence of their view is that the contrary desires its own extinction. Yet the form cannot desire itself, for it is not defective; nor can the contrary desire it, for contraries are mutually destructive. The truth is that what desires the form is matter, as the female desires the male and the ugly the beautiful—only the ugly or the female not in itself but accidentally.

The matter comes to be and ceases to be in one sense, while in another it does not. As that which contains the privation, it ceases to be in its own nature; for what ceases to be—the privation—is contained within it. But as potentiality it does not cease to be in its own nature, but is necessarily outside the sphere of becoming and ceasing to be. For if it came to be, something must have existed as a primary substratum from which it should come and which should persist in it; but this is its own very nature, so that it will be before coming to be. (For my definition of matter is just this—the primary substratum of each thing, from which it comes to be, and which persists in the result, not accidentally.) And if it ceases to be it will pass into that at the last, so it will have ceased to be before ceasing to be.

The accurate determination of the first principle in respect of form, whether it is one or many and what it is or what they are, is the province of first philosophy; so these questions may stand over till then. But of the natural, i.e. perishable, forms we shall speak in the expositions which follow.

The above, then, may be taken as sufficient to establish that there are principles and what they are and how many there are. Now let us make a fresh start and proceed.

\[1^{*}\text{I.e. Plato.}\]