

## ARISTOTLE, FIRST BOOK OF NATURAL HEARING (PHYSICS), READING TEN

All make the beginnings contraries - those saying that the whole is one and not moved, for Parmenides makes the hot and the cold beginnings but calls them fire and earth, and those saying the rare and the dense, and Democritus, the full and the empty, of which he said that one is as being and the other as non-being. Further, by position, figure and order. And these are the genera of contraries: above and below, before and behind of position, angular and with angle, straight and circular of figure. It is clear, then, that all make the beginnings contraries in some way.

And this reasonably. for it is necessary that the beginnings be neither from each other, nor from other things, and all things from them. And these belong to the first contraries. They are not from others by reason of being first. They are not from each other on account of being contraries. But one must consider by reason how this takes place.

One should first grasp that, of all the things that are, nothing is apt either to act upon or undergo any chance thing by any chance thing, nor does anything just come to be from anything, unless someone takes this by happening. For how could white come to be from musical if musical did not happen to belong to not white or to black. But white comes to be from the not white and not from everything thus, but from black or the inbetweens. And musical comes to be from not musical except not from everyone, but from unmusical or if something is between these. Nor is it first corrupted into any chance things; as white not into musical except sometimes by happening, but into the not white, and not into any chance one, but into the black or the inbetween. And likewise the musical into non-musical and this not into any chance one, but into unmusical or if something is between the same.

This is found likewise in other things since things which are not simple but composed have the same ratio. But because the opposite dispositions are not named, it is hidden that this happens. For necessarily everything harmonized comes to be from the unharmonized and the harmonized is corrupted into disharmony and this not into any chance one but the opposite. It makes no difference to speak of harmony or order or composition. For it is clear that there is the same reason. but house and statue and anything else comes to be in the same way. For house comes to be from these things not being

composed, but divided thus; and the statue and each of the shaped things from the shapeless. and of these, some are order and some, composition.

If then this is true, what-comes-to-be comes to be and what-is-corrupted is, either from contraries or into contraries and the things inbetween these. But the things inbetween these are from the contraries, as colors from white and black; so that all things which come to be by nature are contraries or from contraries.

Almost all the others, then have followed as far as up to this, as we have said before. for all, although laying it down without a reason, nevertheless say that the elements and what are called beginnings by them are contraries - as if being forced by the truth itself.

They differ from each other, however, in that some take those that come before and others those that come after; and some the more known by reason while others the more known by sense. For these lay down hot and cold and those, moist and dry; while others, the odd and the even or hate and love as the causes of generation. and these differ from each other in the aforesaid ways.

Thus they say the same thing in some way and something different from each other. Other just as it seems to many; the same however insofar as proportional. for they take from the same co-ordinated series. For some contraries contain while others are contained. In this way they speak similarly and differently. And worse and better. And some the more known by reason while other, by sense, as has been said before. For the universal is known by reason and the singular by sense. For reason is of the universal but sensation of the particular; as the large and the small by reason, the rare and the dense by sense.

It is clear then that the beginnings should be contraries.