NOTE FOR BOOK ONE, READING ELEVEN

Aristotle goes forward in this Reading chiefly from the two contrary beginnings brought out in the Tenth Reading to the necessity of a third beginning. He also will bring out how the earlier philosophers saw the need for a third thing (or things) besides the two contraries.

However, he sets this main advance in the context of the question how many beginnings are there. And he answers this question in three steps.

First he eliminates the extremes or the answers furthest apart. There cannot be just one beginning or an infinity of beginnings. He shows that there cannot be just one since the beginnings are contrary and nothing is contrary to itself. There must be *at least* two since contraries come in pairs. Then he eliminates as an answer that there is an infinity of beginnings by four arguments which we will consider shortly.

Having shown that there are at least two beginnings, he then asks does anything force us to go to more than two. For if two were enough, then, by the beginning or principle of fewness, it is better to stop there. He then shows by three arguments that the two contraries are not enough to explain change and that a third beginning is necessary. We shall consider these arguments below.

Then after bringing out how the earlier thinkers seem to have seen also that there are three beginnings, Aristotle asks whether it is necessary to go beyond three. And by two arguments which we shall consider, he shows that three is enough.

It is interesting to note how often, not only here, but elsewhere, three is enough. In the book *On the Universe*, Aristotle notes a sign of this which is that three is the first number about which we say *all*.

Thus besides the two chief kinds of philosophy, looking philosophy and practical philosophy, there is need of a third kind of philosophy which is logic, the tool of philosophy. And this is enough.

And there can be only three kinds of looking philosophy (natural philosophy, mathematical philosophy and first philosophy or wisdom) as Aristotle shows in the sixth book of *Wisdom* and Boethius in the *de Trinitate.*

Likewise, there are just three kinds of practical philosophy as Thomas explains in his proemium to the *Nicomachean Ethics.*

And logic has three parts, corresponding to there being just three acts of reason to be directed, as Thomas shows in his two Proemia to logic.

The reader can amuse himself by going through the arts and sciences and seeing how often three is enough even though it is not always the case. And this between taking his three meals a day.

We have noted already that Aristotle is quick to eliminate the answer that there is only one beginning of change for in the previous Reading it has been brought out abundantly that change is by contraries and contraries are two.

If we examine the four arguments given by Aristotle against the answer that there are an infinity of beginnings, it can be seen that the first and the third are based on the beginning of fewness and that they are two of those used against Anaxagoras' position in the Ninth Reading. They are the same as the first and the last arguments given there (to the discussion of which we refer the reader). The second and the fourth arguments here reason from the beginnings being contraries and what we know about contraries, the second argument using the definition of contraries and the fourth proceeding from the truth that one pair of contraries gives rise to another pair.

In the second argument, Aristotle reasons that the first beginnings are in the genus substance since this is before all the genera of accidents. And if the beginnings are contraries, there cannot be an infinity of beginnings in substance since there can be only one pair of contraries in any one genus. This follows from contraries being the species furthest apart in a genus, as black and white are contraries in the genus color. Just as there can be many pairs of points equidistant from each other on a straight line, but only one pair that are furthest apart (namely the end points), so in one genus there can be only one pair furthest apart although there can be many pairs the same distance apart.

In the fourth argument, Aristotle reasons that if contraries are the beginnings and the beginnings are infinite, then every pair of contraries would have to be first beginnings. But this is not possible since some contraries are causes of

other pairs as hot and cold cause the butter to be soft and hard, and wet and dry cause the sponge to be soft and hard.

Aristotle next asks whether two is enough and then by three arguments, he reasons that a third beginning is necessary.

The first of these is the strongest and it unties the apparent contradiction in change which Heraclitus had pointed out. In change, one contrary is said to become the other. We all say this. The hot becomes cold and the hard becomes soft and the wet becomes dry and vice-versa. The healthy becomes sick and the sick become healthy. Since *becomes* means *comes to be*, we seem to be saying that one contrary comes to be the other. If this is so, then day is night, as Heraclitus said in one fragment, and the waking are the sleeping and the living are the dead and so on, as he said in another fragment. And if we say that the healthy cannot be sick (for this involves a contradiction) and therefore cannot come to be sick, the healthy will always be healthy and likewise for the same reason, the sick will always be sick. There will be no change. But if one contrary is the other, there will not be any change either since change is from one contrary to the other.

We have here the first major step forward in our thinking by untying a contradiction. And perhaps most of the major steps forward in our subsequent knowledge have been by untying or breaking down contradictions, real or apparent, that have blocked and stopped us for a time from going forward.

This seems to be the first major step forward in our thinking by untying a contradiction for it is the first major contradiction we meet. Because things in motion or changing things first catch the attention of our senses (where our knowledge begins) and all change seems to be between contraries or to involve one contrary becoming the other, this is the first contradiction blocking the way forward for us.

The importance of untying or breaking down contradictions to go forward in our knowledge is considered by Aristotle in the beginning of the third book of *Wisdom or First Philosophy* (the *Metaphysics*). And scientists like Einstein and Niels Bohr and theologians like Augustine and Thomas have asserted and shown the universal importance of seeing and untying contradictions to go forward.

The way Aristotle unties this apparent contradiction in all change can be seen by considering one pair of contraries. When the healthy become sick, does health itself become sickness or sick? Or when the sick become healthy, does sickness now become health or healthy? This would involve a contradiction. There must be a third thing, which is neither sickness nor health, in which sickness or health can be, but not at the same time. This third thing is able to be healthy and able to be sick, but it is not actually both at the same time. When it is actually one, it is able to be the other. But if it becomes the other, it ceases to be the one it was.

We are forced by the contradiction to recognize the ability of this third thing.

If we take the contraries concretely, as healthy and sick, rather than as health and sickness, we need to recall from the First Reading of this book how the knowledge sufficient to use a name is confused compared to, for example, that had when we can define. Likewise, when we say *the healthy become sick*, the word *healthy* makes no distinction between health and the body in which the health is. But the body and its health are not the same thing for the body can lose its health. If the body and its health were the same thing, the body could never become sick for health itself cannot be sick. Untying the contradiction brings reason from a confused knowledge of the contraries that are said to become each other to a distinct knowledge that separates the contrary in the pure or abstract sense and its subject. We see that what changes is always composed of the contrary in the pure sense and the subject in which that contrary exists. We can also see here why we can say that *the healthy become sick* even though it is impossible for the healthy to be sick. In like manner, we can say that *a pianist cooked dinner* if the cook happens to be a pianist even though he did not do so *as* pianist. So likewise, the body, which happens to be healthy, becomes sick. The body as such becomes sick and because to be healthy happens to it before, we say that the healthy become sick, speaking accidentally or by happening. But this case is more difficult to see since the cook is not necessarily a pianist before he cooks dinner, but the body is necessarily healthy before it becomes sick.

In theology, we can reason from this statement that *what changes is always composed* and the statement that *God is not composed* to the conclusion that *God does not change*.

Now what has been said of the change between healthy and the sick can be said of any other change between contraries. If the hard becomes soft,

hardness itself cannot become soft or softness. For hardness is that by which the hard is hard (formally speaking) and that cannot be soft, let alone softness by which the soft is soft. A third thing is the subject of hardness and softness, but not at the same time. It is able to be hard and soft, but not both at the same time.

Thus by untying the first major contradiction or apparent contradiction our reason meets, Aristotle goes forward in two ways. He goes forward from seeing that two things, the contraries taken purely, are not enough to seeing that there must be a third beginning or thing involved, the subject in which these contraries are (but never both at the same time). And he goes forward from a confused knowledge of the contraries (taken concretely, as hard rather than hardness) to a distinct knowledge of the contraries as composed of the contrary in the strict or pure sense and the subject of that contrary.

And he also sees how the third thing is to the contraries.

If we take the contraries concretely, such as hard and soft, the third thing is able to be both of them, but not at the same time. And when it is actually one of them, it is able to be the other. But if it becomes the other, it will cease to be the former. Thus butter, for example, can be hard or soft, but not both at the same time. And when it is actually hard, it can becomes soft, but if it becomes soft, it will cease to be hard. We are thus introduced against to the ability to be formed in various ways and the strange kind of reality which is this ability for opposites.

And if we take the contraries purely or abstractly, such as hardness and softness, the third thing is to them as their subject, but not of both of them at the same time.

The second and third arguments for a third beginning in change are based on the statement that the contraries are accidents, such as hardness or softness, health and sickness, etc.

Since substance is more fundamental than accidents, if the contrary accidents are beginnings, then even more so is the substance which is their subject.

And if only the contrary accidents were beginnings, then accidents would have to be the beginning of substance. But how could accidents be the source of substance?

After thus showing that there are three things found in every change, Aristotle shows how his predecessors also seem to have seen this. For besides condensation and rarefaction, they had an element that was condensed or rarified. And besides mixture and segregation, they had the four elements or atoms or something else that was mixed or segregated.

Having shown that two beginnings was not enough, but a third was necessary (and what this third was and how it was to the two contraries), Aristotle in the end of this Reading asks whether three is enough. And he gives two reasons for saying three is enough.

One reason is that change is possible with this third beginning while it was impossible with just the two contraries. Hence, we are not forced to go to more beginnings to have change or to make it possible.

Then, he recalls that substance is one genus and in one genus there is only one contrariety. So this contrariety and its subject are enough.

The diligent reader, like Thomas, will note that Aristotle apparently contradicts himself in this Reading. For in the beginning when reasoning against there being an infinity of beginnings and now when reasoning that three are enough, he assumes that there is one contrariety in substance. But in the middle, when reasoning that there is a third beginning besides the contraries, he reasons in the second and third arguments from contrariety being found only among accidents and one substance not being contrary to another.

As Thomas points out, Aristotle is reasoning dialectically in some of these arguments. A dialectical syllogism is from probable opinions and the probable is apt to have some part of the truth, but not necessarily the whole truth. The demonstrator never reasons from both sides of a contradiction, but the dialectician can if there is apart of the truth on both sides.

In accidents, there are both contrary *species* and contrary *differences*. For example, virtue is contrary to vice. And if virtue is a good habit and vice, a bad habit, their differences, good and bad, are also contrary. But in substance, species, like man and dog, do not seem to be contrary. But if man is a rational

animal and dog is an irrational animal, there seem to be contrary differences (rational and irrational). Thus, if there are contrary differences but not contrary species in substance, there is some truth to saying there is contrariety in substance and some truth in saying one substance is not contrary to another. Hence, both statements are probable.

We have emphasized the first argument whereby Aristotle shows that a third thing or beginning is necessary in change because this has necessity while the second and third arguments are dialectical. The first argument is also very important as being perhaps the first major example of how our reason goes forward by untying or breaking down contradictions.

In the Twelfth and Thirteenth Readings, Aristotle will find a common basis and become strong in it with complete necessity. And we shall see there how he corrects a bit what has been shown in Readings Ten and Eleven.

Duane H. Berquist