

*Ds*. Therefore *A* must extend alongside<sup>21</sup> further than *B*: if it does not, why will *B* be explanatory rather than *A*?

99<sup>b</sup> If *A* holds of all the *Es*, then all of them together will be some one thing different from *B*. If not, how can you say that *A* holds of everything of which *E* holds whereas *E* does not hold of everything of which *A* holds? Why will there not be an explanation for them as there is for all the *Ds*? (But will the *Es* be some one thing? We must inquire into this. Let it be *C*.)

5 Thus it is possible for there to be several explanations of the same feature—but not for items of the same form. E.g. the explanation of longevity for quadrupeds is their not having bile, while for birds it is their being dry (or something else).

## CHAPTER 18

If the explanations do not at once arrive at what is atomic and if there is not one middle term only but several, then the explanations too are several. But which of the middle terms is explanatory for the particulars—the one which is primitive in the  
10 direction of the universal or the one which is primitive in the direction of the particular? Plainly, the one nearest to what it is explanatory for. For this term explains why the primitive term falls under the universal. E.g. *C* is explanatory for *D* of *B*'s holding of it. So *C* is explanatory of *A* for *D*, *B* is explanatory of *A* for *C*, and *B* is explanatory of *A* for itself.

## CHAPTER 19

15 As for deductions and demonstrations, it is clear both what each of them is and also how they come about—and so too (which is the same thing) for demonstrative understanding. As for the principles—how they become familiar and what is the state which gets to know them—, this will be plain from what follows, when we have first set out the puzzles.

20 I have said earlier that you cannot understand anything through a demonstration unless you know the primitive immediate principles. As for knowledge of the immediates, one might wonder whether it is the same or not the same, and whether there is or is

<sup>21</sup> Reading *παρεκτείνειν*, with the MSS (the OCT prints *ἐπεκτείνειν*).

not<sup>22</sup> understanding in each case, or rather understanding in the one case and some other kind of knowledge in the other; and also whether the states, not being present in us, come about in us or rather are present in us without being noticed.

It is absurd to suppose that we possess such states; for then we should possess pieces of knowledge more exact than demonstration without its being noticed. But if we get them without possessing them earlier, how could we come to acquire knowledge and to learn except from pre-existing knowledge? This is impossible, as I said in connection with demonstration. It is clear, then, both that we cannot possess these states and also that they cannot come about in us when we are ignorant and possess no state at all. We must therefore possess some sort of capacity—but not one which will be more valuable than these states in respect of exactness.

And this is clearly true of all animals: they have a connate discriminatory capacity, which is called perception. Given that perception is present in them, in some animals the percepts are retained and in others they are not. If they are not, then the animal has no knowledge when it is not perceiving (either in general or with regard to items which are not retained). But some can still hold the percepts in their soul after perceiving them. When this occurs often, there is then a further difference: some animals come to have an account based on the retention of these items, and others do not.

Thus from perception there comes memory, as we call it, and from memory (when it occurs often in connection with the same item) experience; for memories which are many in number form a single experience. And from experience, or from all the universal which has come to rest in the soul (the one apart from the many, i.e. whatever is one and the same in all these items), there comes a principle of skill or of understanding—of skill if it deals with how things come about, of understanding if it deals with how things are.

Thus the states in question neither inhere in us in a determinate form nor come about from other states which are more cognitive; rather, they come about from perception—as in a battle, when a rout has occurred, first one man makes a stand, then another does, and then another, until a position of strength is reached.<sup>23</sup> And the soul is such as to be capable of undergoing this.

<sup>22</sup> Retaining ἢ οὐ, which the OCT deletes.

<sup>23</sup> Reading ἀλκίην for ἀρχήν (MSS, OCT).

15 Let us say again what we have just said but not said clearly.  
 When one of the undifferentiated items makes a stand, there is a  
 primitive universal in the soul; for although you perceive par-  
 100<sup>b</sup> ticulars, perception is of universals,—e.g. of man, not of Callias  
 the man. Next, a stand is made among these items, until some-  
 thing partless and universal makes a stand. E.g. such-and-such an  
 animal makes a stand, until animal does; and with animal a stand  
 is made in the same way. Thus it is plain that we must get to  
 know the primitives by induction; for this is the way in which  
 5 perception instils universals.

Of the intellectual states by which we grasp truth, some are  
 always true and some admit falsehood (e.g. opinion and calcu-  
 lation do—whereas understanding and comprehension are always  
 true); and no kind apart from comprehension is more exact than  
 understanding. Again, the principles of demonstrations are more  
 10 familiar, and all understanding involves an account. Hence there  
 will not be understanding of the principles; and since nothing  
 apart from comprehension can be truer than understanding, there  
 will be comprehension of the principles. This emerges both from  
 our present inquiry and also because, just as demonstration is not  
 a principle of demonstration, so understanding is not a principle  
 of understanding. Thus if we have no other true kind apart from  
 15 understanding, comprehension will be the principle of under-  
 standing. And the principle will relate to the principle as under-  
 standing as a whole is related to its object as a whole.