

Posterior Analytics (excerpts)

Book I

Chapter 13

78^a23. Understanding the fact and the reason why differ, first in the same science—and in that in two ways: in one way, if the deduction does not come about through immediates (for the primitive explanation is not assumed, but understanding of the reason why occurs in virtue of the primitive explanation); in another, if it is through immediates but not through the explanation but through the more familiar of the converting terms. For nothing prevents the nonexplanatory one of the counterpredicated terms from sometimes being more familiar, so that the demonstration will occur through this.

78^a30. E.g. that the planets are near, through their not twinkling: let *C* be the planets, *B* not twinkling, *A* being near. Thus it is true to say *B* of *C*; for the planets do not twinkle. But also to say *A* of *B*; for what does not twinkle is near (let this be got through induction or through perception). So it is necessary that *A* belongs to *C*; so that it has been demonstrated that the planets are near. Now this deduction is not of the reason why but of the fact; for it is not because they do not twinkle that they are near, but because they are near they do not twinkle.

78^a38. But it is also possible for the latter to be proved through the former, and the demonstration will be of the reason why—e.g. let *C* be the planets, *B* being near, *A* not twinkling. Thus *B* belongs to *C* and *A* to *B*; so that *A* belongs to *C*. And the deduction is of the reason why; for the primitive explanation has been assumed.

78^b3. Again, take the way they prove that the moon is spherical through its increases—for if what increases in this way is spherical and the moon increases, it is evident that it is spherical. Now in this way the deduction of the fact comes about; but if the middle term is posited the other way about, we get the deduction of the reason why; for it is not because of the increases that it is spherical, but because it is spherical it gets increases of this sort. Moon, *C*; spherical, *B*; increases, *A*.

78^b12. But in cases in which the middle terms do not convert and the non-explanatory term is more familiar, the fact is proved but the reason why is not.

78^b13. Again, in cases in which the middle is positioned outside—for in these too the demonstration is of the fact and not of the reason why; for the explanation is not mentioned. E.g. why does the wall not breathe? Because it is not an animal. For if this were explanatory of breathing—i.e. if the denial is explanatory of something's not belonging, the affirmation is explanatory of its belonging (e.g. if imbalance in the hot and cold elements is explanatory of not being healthy, their balance is explanatory of being healthy), and similarly too if the affirmation is explanatory of something's belonging, the denial is of its not belonging. But when things are set out in this way what we have said does not result; for not every animal breathes. The deduction of such an explanation comes about in the middle figure. E.g. let *A* be animal, *B* breathing, *C* wall: then *A* belongs to every *B* (for everything breathing is an animal), but to no *C*, so that *B* too belongs to no *C*—therefore the wall does not breathe.

Book II

Chapter 1

89^b24. The things we seek are equal in number to those we understand. We seek four things: the fact, the reason why, if something is, what something is.

89^b26. When we seek whether this or that is the case, setting down a plurality of terms (e.g. whether the sun is eclipsed or not), we are seeking the fact. Evidence for this: on finding that it is eclipsed we stop; and if from the beginning we know that it is eclipsed, we do not seek whether it is. When we know the fact we seek the reason why (e.g. knowing that it is eclipsed and that the earth moves, we seek the reason why it is eclipsed or why it moves).

89^b32. These things we seek in this way; but certain items we seek in another way—e.g. if a centaur or a god is or is not. (I mean if this is or is not *simpliciter* and not if one is white or not.) And having come to know that it is, we seek what it is (e.g.: Then what is a god? or What is a man?).

Chapter 2

89^b36. These and thus many are the things which we seek and which we find and know. When we seek the fact or if something is *simpliciter*, we are seeking whether or not there is a middle term for it; and when, having come to know either the fact or if it is—either partially or *simpliciter*—, we seek the reason why or what it is, we are then seeking what the middle term is. (By the fact that it is partially and *simpliciter* I mean this: partially—Is the moon eclipsed? or Is it waxing? In such cases we seek if it is something or is not something. *Simpliciter*: if the moon, or night, is or is not.)

90^a7. Thus it results that in all our searches we seek either if there is a middle term or what the middle term is. For the middle term is the explanation, and in all cases it is the explanation which is being sought. Is it eclipsed?—Is there some explanation or not? After that, having come to know that there is one, we seek what it is. For the explanation of its being not this or that but *simpliciter*, or of its being not *simpliciter* but one of the items which hold of it in itself or incidentally—this is the middle term. By “is *simpliciter*” I mean the underlying subject (e.g. the moon or the earth or the sun or a triangle), and by “one of the items” eclipse, equality, inequality, if it is in the middle or not.

90^a15. In all these cases it is clear that what it is and why it is are the same. What is an eclipse? Privation of light from the moon by the screening of the earth. Why is there an eclipse? or Why is the moon eclipsed? Because the light leaves it when the earth screens it. What is a harmony? A numerical ratio between high and low. Why does the high harmonize with the low? Because a numerical ratio holds between the high and the low. Can the high and the low harmonize?—Is the ratio between them numerical? Assuming that it is, what then is the ratio?

90^a24. That the search is for the middle term is shown by those cases in which the middle is perceptible. If we have not perceived the middle term, we seek it: e.g., we seek if there is a middle term for the eclipse or not. But if we were on the moon we would seek neither if there is an eclipse nor why there is: rather, these things would be plain at the same time. By perceiving, we would come to know the universal: perception would tell us that the earth is now screening it (it is plain that it is now eclipsed); and from this the universal would come about.

90^a32. So, as we say, to know what something is is the same as to know why it is—either why it is *simpliciter* and not one of the items that hold of it, or why it is one of the items which hold of it (e.g. that it has two right angles, or that it is greater or less).

— translations by J. Barnes (Revised Oxford Aristotle)