

Scriptum super libros Posteriorum

by Walter Burleigh

translated by John Longeway, from

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Chapter 11

[I.13] "But since of the fact and of the reason why differ etc." (*Sed quia differt quia et propter quid etc.*) In this chapter the Philosopher compares different genera of demonstration. And first he teaches how demonstration of the fact (*quia*) and demonstration of the reason why (*propter quid*) differ within the same science. In the second place he shows how they differ in different sciences.

[I.13 78a22-30] In the same science demonstration of the reason why and demonstration of the fact differ because demonstration of the reason why always arises through the immediate cause, but this is not the case for demonstration of the fact. Hence two things are required for a demonstration of the reason why, what it is through a cause, and through an immediate <cause>. Therefore a demonstration of the reason why does not arise through something demonstrated. But since this can occur in two ways, either because it is not through a cause, or because it is not by immediates, there are two sorts of demonstration of the fact. One does not arise through the cause, but through the effect, the other is through a mediated cause of the effect. And demonstration of the fact that argues to the cause from the effect is twofold, for some such demonstrations argue from the effect to the immediate cause, and some are to a mediated cause. Hence, briefly, this is the difference between demonstration of the fact and demonstration of the reason why, that demonstration of the reason why argues from the immediate cause to the effect, but demonstration of the fact either from a non-immediate cause to the effect, or from effect to cause.

[I.13 78a31-b4] The Philosopher gives examples of demonstration from the cause to the effect and vice versa. Let it be argued thus: Every bright body that does not twinkle is near, the planets are bright bodies that do not twinkle, therefore they are near. This is a demonstration of the fact, for here the cause is concluded from the effect, since being near is the cause. Therefore they don't twinkle because they are near, and because of this, that they do not twinkle, they are near. For if it is argued thus: No being that is near twinkles, the planets are near, therefore they do not twinkle. This is a demonstration of the reason why since it is from an immediate cause to the effect. ☒

[I.13 78b35-79a3, 79a11-16] Demonstration of the fact and the reason why differ in another way because they sometimes belong to different sciences of which one is subalternate to the other, for demonstration of the reason why belongs to the superior, or subalternating, science, and demonstration of the fact belongs to the subalternate science. ☒ In the same way demonstration of the reason why and of the fact differ in the comparison of different sciences of which one is not under another, or not subalternate to another, except in part. ☒ In this way natural science is subalternate to perspective as far as that part of natural science concerning the rainbow is concerned. Hence it belongs to the subalternating science to know the reason why, and to the science that is subalternate in part, in that part of it which is subalternate, to know the fact. Demonstration of the reason why and of the fact also differ in different sciences of which one is not subalternated to the other, either wholly or in part, for instance when one science uses some proposition concerning which it indicates the fact, and the other science indicate the reason why for the same fact. So medicine indicates of this proposition, that a circular wound heals slowly, only the fact, but geometry indicates why it is true. ☒ For it is in a circle, which has no angles, and so the parts are more distant and because of this the parts are not (42ra) in contact.

Chapter 12

[I.14 79a17-32] “Now of the figures etc.” (*Figurarum autem etc.*) In this chapter the Philosopher proves this conclusion [Conclusion 18], that the first mood of the first figure produces knowing more than any other mood. And this is proven in three ways. In the first place, through a syllogism thus: It is obvious that mathematical sciences, which are the most certain, use the first figure and its first mood, and so from this it appears that this mood produces knowing more than any other mood. In the second place, it is proven thus: Demonstration of the reason why produces knowing more since it concludes the universal affirmative, but the universal affirmative is only concluded in the first mood of the first figure; therefore etc. In the third place, it is proved because this figure produces knowing more since it is in need of nothing, but the others are in need of it. And since the first mood is the most powerful, therefore the conclusion follows etc.

Chapter 13

[I.15 79a33-b22] “Now just as A is in G etc.” (*Sicut autem A inest G etc.*) In this chapter Aristotle intends to explain ☒ ignorance about those things that occur in demonstration, ☒ what it concerns and how it happens to us. And since Aristotle needs to presuppose the species ☒ to show this, <and> since <it is clear that> some affirmative propositions are immediate, first Aristotle shows when and how it happens that a <negative> proposition is immediate. ☒ And he says that if the predicate is under some universal under which the subject is not, or if the subject is under some universal under which the predicate is <not>, or if each is under some universal under which the other is not, then the proposition will not be immediate, but will have a middle. An

example of the first is this: No substance is a line, for the predicate is under some universal under which the subject is not. An example of the second is this: No man is a quantity. This has a middle because the subject is under an universal under which the predicate is not. An example of the third: No man is a line. This has a middle, for each extreme is under an universal under which the other is not.

But if the predicate is not contained under something under which the subject is not contained, nor conversely, then it is an immediate negative. And every negative in which a most general genus is removed from another is immediate. For this is immediate: No substance is a quantity. In the same way, if the subject and the predicate are each contained under something common to both immediately, then the negative proposition in which one is removed from the other is immediate, and so every negative proposition is immediate in which a species to which a genus immediately descends is removed from another species to which the genus immediately descends. Hence every proposition like these is immediate: No corporeal substance is incorporeal; no continuous quantity is a discrete quantity.

[I.16 79b23-80b16] Now that this has been seen, the Philosopher teaches how deception can occur concerning both immediate propositions and propositions with a middle. And he says that ignorance not in virtue of a negation but in virtue of a disposition is a deception produced through some <deduction> (79b24-25). The author assumes (*praemittit*) that ignorance is two-fold, namely, of negation <and> of disposition. One has ignorance of negation concerning that of which one knows nothing at all, neither anything about the thing, nor the thing itself. The logician has such ignorance concerning the conclusions of geometry. The ignorance of disposition of which Aristotle speaks here is a disposition contrary to knowledge, that is an erroneous opinion. And this sort of ignorance can be acquired indifferently through a syllogism and without a syllogism. And when ☒ it is a deception without a syllogism, then it is a deception without qualification. But when it is a deception through a syllogism, then there are several deceptions, for then there is a deception concerning the conclusion that is believed to be true, and is not true. And what is not true would not be believed to be true through the syllogism unless it were believed that some premisses is true which is nonetheless false, and that some logical process (*cursus*) is good which is not good. And therefore if there is a deception produced through a syllogism it is necessary that there be several deceptions.

[I.16-17] Then Aristotle teaches in how many ways such a deception can be taken, and in how many ways such ignorance can be caused, both about propositions with a middle as well as immediate propositions, and such is ignorance. I omit <a discussion of this matter>, then, since it is easy enough, so (*inde*) where it is obvious and if <the deception arises> from a syllogism, Aristotle explains it.

[I.18 81a38-b9] Hence he comes to the aforesaid ignorance of negation. And first he gives the true cause, and in the second place the apparent cause. The true cause (42vb) of ignorance in virtue of negation is lack of one of the senses. It is necessary that one lacking one of the senses lacks that knowledge which is suited to be acquired through that sense. Hence one lacking vision necessarily lacks knowledge of color. And

this ignorance which is from a lack <of one of the senses> is called ignorance of negation above. But that it is necessary that someone lacking a sense should lack knowledge suited by nature to arise from that sense, is clear inasmuch as one lacking a sense <also> lacks any induction received from singulars which are grasped by the sense that is lacking. And if the induction that is received from these singulars is lacking, the cognition of the universal in the intellect is also lacking. ☒ And since the universal is only received from induction, and this speaking of the universal immediately, for a first, immediate principle is not cognized except by induction from singulars; and lacking the cognition of the universal in the intellect, demonstration will be lacking, which is from universals; and demonstration lacking, knowledge will be lacking, for it is acquired through demonstration alone. Therefore, by transitivity (*a primo ad ultimum*), if any sense is lacking it is necessary that knowledge that is suited to be acquired from that sense be lacking.