

Avicenna

SHIFĀ' (HEALING)
Al-Burhān (Demonstration)
Book IV, Chapter 10
The Concluding Discussion on Demonstration
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We have shown previously that knowledge (*al-'ilm*) of the principles of demonstration must be more certain (*ākad*) than knowledge of the conclusions of demonstration. But someone might raise a doubt as to whether both of these is knowledge and belongs to a single power, or whether one of the two is knowledge and the other is something else and belongs to some other power? Then it is inevitable either that it was existent in us as soon as we were born, and that we have known it since that time. But then how is there knowledge in us but we do not realize it until we have reached maturity (*hattā istakmalnā*)? For it is not possible that there should be demonstrative knowledge in us which we do not know, so how can there be a knowledge that is truer (*aṣaḥḥ*) than demonstration? And if we knew and then forgot, when did we know and at what point in time did we forget? For it is not possible for us to know it while we are children and to forget it after we have grown up, and then recollect it after another interval during maturity. Therefore the truth is that we are lacking in the principles of demonstration at first, then we acquire and attain them. But how do we attain the unknown without a demonstration? And if it is through a demonstration, then we will require principles prior to the primary principles, and this is impossible. So there is no way to dissolve this difficulty, unless there is in us a faculty whose role is to know certain things without learning and through ancillary aids which assist it in a way other than that of instruction. And these ancillaries are the external and internal sense faculties existent in all or most animals.

For the external sense is existent in all animals; but the internal power which retains what the sense conveys to the soul may not exist in all animals, or if it exists in all animals, it may not be stable in some of them through its act, for example, their state in worms, flies, and moths which fly from the light, then forget that it harms them and return to it. As for the perfect animals, in them what is taken from the senses remains for a long time. And the animals take two things through their perceptual faculties: one of them is the form of the sensible and its external appearance (*kilqah-hu*), like the external appearance of the wolf which is harmful to it and the external appearance of its human benefactor. And it only takes this form through the sense and stores it in the imagination, which is in the anterior of the brain. And the second is the intention of the sensible, for example /331 the incompatibility of the wolf and the agreeableness of the benefactor. And the animal does not perceive this division by sensation, but rather, by a power which discerns them, like the intellect does for us, which is called estimative. And it stores it in another power, which is called memory, and it is in the posterior of the brain. And this internal power is more powerful in humans, especially the power of memory, retention, and estimation.

And sensation and estimation establish what flows into the formative and retentive faculties through repetition.

Then if the faculty which acquires the primary sciences in us peruses these internal estimations and distinguishes the similar from the dissimilar, and extracts from each form what it has accidentally, and abstracts what it has essentially, the first thing that will arise in it is the conceptualization of the simples. Then it will compose the simples with one another with the aid of the faculty called the cogitative, and it will divide some of them from others, so that there in it composites of these intentions. So when it happens that among these is that whose nature is to be known without instruction and without a middle, it knows and experiences it; for example, that the whole is greater than the part. And in most of them it acquires the judgement of composition and division from sensation by way of experience. And we have said what is the meaning of experience.

Therefore the cause of our not knowing these principles is our forgetting that they too have a principle, namely, conceptualization. For even if the first principle does not have a principle with respect to assent, it does have a principle with respect to conceptualization. And as for their principles with respect to conceptualization, they are acquired through sensation, imagination, and estimation. And when they have been acquired, it is possible for the composition and division of them to furnish the source of assent and to conceptualize [them] inasmuch as they are composed and divided. And after this conceptualization we understand them (*na'qilu-hā*) through themselves. And this conceptualization is one of their principles.

And just as memory (*al-hifz*) is fixed by repeated sensibles, so too experience is fixed—or rather congealed—through repeated similar memories. So this is the way in which we hunt down conceptualized universals and universals which are assented to without demonstration. So their acquisition occurs in a different way from that of teaching and learning. And we were only ignorant of them in the past because their simples did not appear to us nor come to our minds. But when one of us acquires their simples from sensation and imagination in the aforementioned way and their composition appears to him, this is the cause of our assents to them through themselves when it is conjoined to the divine emanation from which the preparation is not detached.

/332 And as for the rest of the sciences, they are acquired either from experience or through a medium if the composition of the simples itself is not sufficient for assent. For there are two causes of ignorance which may have preceded what is acquired of the sciences. These are (1) the absence of the appearance of the simples to the mind; and (2) the lack of the middle and the experience. And one of these two causes [of ignorance also] precedes the self-evident primaries, namely the first.

And the First Teacher compared the state of assembling (*ijmā'*) universal forms in the soul with the state of assembling a battle line (*al-ṣaff fī al-ḥarb*). For whenever a rout occurs, one person stands his ground (*fa-thabata wāḥid*), then another one goes straight to him and stops next to him, then a third person follows the two of them and joins the formation (*al-amr*). So one by one they do this and return, and the line is arrayed a second time. So the line is arrayed bit by bit. Likewise knowledge and the intelligible universal form is impressed in the soul bit by bit from sensible unit (*'an āḥād maḥsūsaḥ*): whenever they are gathered up, the soul acquires the universal

forms from them and then emits them. And this is also because that which senses the particulars in some respect may sense the universal, for what senses ‘Socrates’ may also sense ‘human,’ and likewise whatever it conveys. For it conveys to the soul ‘Socrates’ and ‘human,’ except that it is a vague human [*insān muntashar=homo vagus* of the *Physics*] mixed with accidents, not pure human. Then if the intellect peels and removes from it the accidents, there remains of it the abstract human from which Socrates and Plato are not distinct. And if it were the case that sensation did not perceive human being in some way, then estimation in us and in the animals would not [be able to] distinguish between the individuals of one species and [those of] another species, so long as there was no intellect. So neither does sense distinguish these, but rather, estimation, even if the estimation only distinguishes one thing, and the intellect something else.

And whenever this power hunts down a universal intention, it joins it to another, and then hunts down another universal intention through these two. And this natural process/source (*al-ma’khadh*) of the soul’s perception of primary things is like the artificial/technical process which the First Teacher calls the hunting down of definitions—namely, composition. And this is one of the signs of the nobility of composition. It is said, “Let us consider which of the powers of the soul is this?” So we say: that the soul has a most learned power by which it acquires unknown things through speculation (*bi-al-naẓar*); and there occurs in us no other perceptual faculty among the rational faculties than an intellectual faculty (*quwwah ‘āqilah*), an opinionative faculty (*quwwah ẓānnah*), a cogitative faculty, and an estimative faculty. Then the opinionative, the cogitative, and the estimative are not to be reckoned, for their judgement is not always true so as to precede the capacity for knowledge. Nor is the capacity for knowledge suitable for this, because just as the principle of demonstration is not acquired /333 through demonstration, so too the principle of knowledge is not obtained through the capacity for knowledge. So no power remains which is suitable for this except the intellect. For this faculty is the faculty of the naturally disposed speculative intellect, which is the sound, innate (*al-fiṭrīy*) disposition.

And as for the principle for the reception of knowledge, it is the habitual intellect, which we shall make known in the *De anima*. And this intellectual faculty only performs its primary activity if the mixture of the brain is correct, for this makes the helping faculties—that is, imagination, memory (*al-dhikr*), estimation, and cogitation—strong, and so perfects the instruments of the intellect.

And know that speculation concerning the topics which are helpful in the art which of dialectic (*al-fann fī al-jadal*) is very useful in demonstration, since demonstrative topics follow from them. And we will proceed from here to what is there, and when a demonstrative topic is posited, we will indicate it.

Here ends the *Demonstration* of *The Healing*, being the fifth part. Praise be to God.