

**[Question 3: Whether anyone can acquire any  
knowledge about something new.]**

3.0. Concerning the subject of this science, it must be presupposed that it is. Since, then, demonstration is the subject of this science, it is necessary to presuppose that demonstration is. And since demonstration is a syllogism producing scientific knowing, it is necessary to presuppose scientific knowing, which the Academics have contradicted, holding that all things are unknown, and the Platonists, holding that learning what is unknown does not happen, but only remembering what was forgotten. The philosopher meets both of these opinions when he says "every teaching etc." <sup>1</sup> Concerning this text, IT IS ASKED whether anyone can acquire any scientific knowledge from scratch.

3.1 <FIRST PRINCIPLE ARGUMENT>: AND IT SEEMS THAT NO ONE CAN, through the argument of those who deny there is any scientific knowledge, as is clear from *Metaphysics* IV.<sup>2</sup> The intellect grasps nothing except by the senses, but the senses grasp nothing about the reality with certainty; therefore neither does the intellect. But no one can acquire scientific knowledge without grasping something with certainty. Now that the senses grasp nothing certain is proved, since what appears to one man is the contrary of what appears to another, and whatever appears to one man at one time, the contrary appears to the same man at another time. This would not be if man grasped anything about a reality with certainty through the senses.<sup>3</sup>

3.2 IT IS REPLIED TO THIS that the senses, when well disposed, grasp a reality as it is if there is not defect on the part of the object or from elsewhere. Now that different men judge in contrary ways concerning the same reality, this is because their senses are not equally well disposed. For what appears to a healthy man sweet, appears bitter to one suffering from fever; and this is because the tongue of the man suffering from fever is filled with a choleric humor, and thus is badly disposed, so that it does not judge the reality as it is.

3.3 AGAINST THIS. If a man grasped something with certainty through the senses, this would certainly be through the sense of vision, which is the most certain of the senses. And through vision a man cannot grasp with certainty. Proof: for when things appears equally to someone, if he is not certain about one, he will not be certain about the other. But insofar as something appears through vision to be as it is, thus far it is possible that something should appear such as it is not. For example, insofar as it appears to you through the vision that someone is a man, who is in reality a man, just so far it is possible that something should appear to you to be a man that is not a man. This can be known through the art of keeping watch.

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<sup>1</sup>So says Grosseteste, I.1.

<sup>2</sup>Aristotle, *Metaphysics* IV 4-8, 1005bff.

<sup>3</sup>S.Q.O., a. 1, q. 1.

Since, then, it is not certain through vision concerning that which is not a man that it is a man, neither can it be certain through vision concerning he who is a man that he is a man, and it can be argued thus concerning every other visible thing. For however much something appears green to you that is in the truth of the reality green, to that extent as well something that is not green can appear to be green, therefore etc.

3.4 SECOND <sup>4</sup> PRINCIPLE ARGUMENT: I argue through the reasoning of Meno, which the Commentator rehearses in *Metaphysics IX*, Comment 14. <sup>5</sup> He argued thus: no one learns who knows nothing, but he cannot acquire scientific knowledge who learns nothing; therefore neither can he acquire scientific knowledge who knows nothing. But every man, in the beginning, knows nothing, and, through the Philosopher in *On the Soul III*,<sup>6</sup> the intellect before understanding is like a blank tablet upon which nothing is written. Therefore, since in the beginning no man knows anything, a man cannot learn anything.<sup>7</sup>

3.5 This is argued in other terms in the same comment thus: no one learns to play the lyre without playing the lyre, but whoever plays the lyre knows how to play the lyre, for no one does that which he does not know how to do; since, then, no one knows in the beginning how to play the lyre, one cannot learn for the first time how to play the lyre. Or in another form: whoever learns to play the lyre, plays the lyre, and whoever plays the lyre, knows how to play the lyre, and whoever knows how to play the lyre, does not learn for the first time to play the lyre, for no one learns for the first time what he knows; therefore to assume that someone learns for the first time to play the lyre is to assume opposites. This argument is strengthened by the remark of the Commentator in the same comment. For he says that nothing is moved to anything unless it has something of that to which it is moved. Since, then, no one has any knowledge concerning the formula in the beginning, no one can acquire any knowledge through teaching; for thus one would be moved to something of which he had nothing.

3.6 <THIRD PRINCIPLE ARGUMENT>: Moreover, if anyone should acquire scientific knowledge for the first time, this will be from pre-existing cognition. If someone acquired pre-existing cognition it is because he did not always have it, and this from a pre-existing cognition; and by the same argument, that other cognition was acquired from a pre-existing cognition, and so on indefinitely, which is absurd. Therefore it is absurd that someone should learn something for the first time.

3.7 <FOURTH PRINCIPLE ARGUMENT>: Moreover, according to Boethius, *Arithmetic I*,<sup>8</sup> scientific knowledge is not unless it concerns what is fixed and permanent; but in sensible realities, and all human cognition concerns these, nothing is fixed or permanent. Therefore a man can acquire scientific knowledge for the first time of no such reality.<sup>9</sup>

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<sup>4</sup>Reading "aliud" for the edition's "aliquid."

<sup>5</sup>Averroes, *In libro Metaphysicorum IX* 3, textus citatus 14.

<sup>6</sup>Aristotle, *On the Soul III* 4, 429b31-430a2.

<sup>7</sup>S.Q.O., a. 1, q. 1.

<sup>8</sup>Boethius, *Arithmetic I.1*, PL 63, 1079D-1080D.

<sup>9</sup>S.Q.O., a. 1, q. 1.

3.8 <FIFTH PRINCIPLE ARGUMENT>: Moreover, he does not have certain scientific knowledge concerning a reality who perceives not the essence of the reality, but only its image, since he does not know Hercules who only knows his picture. But no one perceives anything except the image of the reality concerning any reality, for the stone is not in the soul, but its species is,<sup>10</sup> therefore no one can have certain knowledge concerning a reality.<sup>11</sup>

3.9 <SIXTH PRINCIPLE ARGUMENT>: Another principle argument: if a man acquired scientific knowledge for the first time, this would occur through inquiry. But no one has knowledge through inquiry. Proof: for every natural power is capable naturally in its operation, for as the power is, so is the act.<sup>12</sup> But a cognitive power is a natural power. Therefore it is naturally capable in its operation, and consequently without inquiry. Its operation is knowing and understanding, therefore a man can know and understand without inquiry.<sup>13</sup>

3.10 This same thing is argued in a second way thus: Nature is not lacking in what is necessary, as is clear in *On the Soul* III.<sup>14</sup> But scientific knowledge is necessary to a man for the organization of his life, and for its ultimate end, which is happiness, as is obvious from *Ethics* X;<sup>15</sup> therefore nature is not lacking in the act of knowing in man. But man is naturally and without inquiry in whatever it is in which nature is not lacking for him, therefore without any inquiry man can know and understand.<sup>16</sup>

3.11 The same thing is argued in a third way, thus: Inasmuch as any power is more perfect, to that extent it is more perfect in its operation. But the intellect is a more perfect power than the senses, and the senses are capable in their operation without any inquiry. Therefore, the intellect is as well, since understanding immediately without inquiry is more perfect than understanding through inquiry.<sup>17</sup>

3.12 <SEVENTH PRINCIPLE ARGUMENT>: Another principle <argument>: if anyone acquires scientific knowledge for the first time, either this is by himself, or from another, since all human knowledge is gotten either through teaching or discovery. But in neither way can man acquire knowledge for the first time. Proof: a man cannot acquire knowledge from himself, for instance, by discovering it himself, since if he does, then he himself will learn what he did not know before, and one does not learn except through a teacher. Therefore he will teach himself. And thus someone will be his own teacher, and also his own student, which is absurd.<sup>18</sup>

3.13 This is clear in another way, for it is in vain that one seeks aid from another to do something that he can do by himself. But a man does not seek aid from another in vain that he might know, therefore a

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<sup>10</sup>Aristotle, *On the Soul* III 8, 431b29-30.

<sup>11</sup>S.Q.O., a. 1, q. 1.

<sup>12</sup>Cf. Aristotle, *On the Soul* III 2, 414a25-27.

<sup>13</sup>S.Q.O., a. 1, q. 4.

<sup>14</sup>Aristotle, *On the Soul* III 9, 432b21-22.

<sup>15</sup>Aristotle, *Nicomachean Ethics* X 7, 1177a ff.

<sup>16</sup>S.Q.O., a. 1, q. 4.

<sup>17</sup>S.Q.O., a. 1, q. 4.

<sup>18</sup>S.Q.O., a. 1, q. 9. Cf. Aristotle, *Physics* III 3, 202a22 ff. [sic]

man cannot acquire knowledge by himself.<sup>19</sup>

3.14 This same thing is clear in a third way thus: According to the Philosopher in *Metaphysics IX*,<sup>20</sup> nothing proceeds from potentiality to actuality unless it is through something existing in actuality that is of the same sort as the thing is potentially. But man is a knower potentially, therefore from that potentiality he does proceed into actuality except through some actual knower, and whoever is a potential knower is not of this sort, there by himself he cannot acquire knowledge.<sup>21</sup>

3.15 <EIGHTH PRINCIPLE ARGUMENT>: Moreover, that no one can acquire scientific knowledge from another for the first time, since if it were so, this would be because the other proposed something to him, either something known or something unknown. If it is unknown, he would not learn through that—for instance, if Greek words are presented to one ignorant of Greek, he will not learn through this. If something known is proposed, he still will not learn, since one does not learn for the first time what is known to him.

3.16 This argument is strengthened thus: if the proposed signs are known, then it is known that such a sign is a sign of such a reality. But no one can cognize that anything is a sign of some reality unless he cognizes that reality. For example, I cannot cognize that the name "stone" signifies a certain reality, unless I know what sort of reality is signified by that name. If, therefore, known signs are proposed, the realities signified are known. And if it is thus, a new cognition is not acquired concerning such realities, since they were known before.<sup>22</sup>

3.17 <NINTH PRINCIPLE ARGUMENT>: Moreover, if anyone acquired scientific knowledge from another, since the knowledge in the soul of the master is not the same in number with the knowledge in the soul of the student afterwards, it is necessary that the master generate a new knowledge in the soul of the student through his knowledge. And thus knowledge is an active quality.<sup>23</sup>

3.18 ON THE OTHER HAND: Everything that is acquired from pre-existing cognition is acquired for the first time, but every human scientific knowledge is acquired from pre-existing cognition; therefore etc. The minor premise is clear from the Philosopher here.<sup>24</sup>

3.19 CONCERNING THIS QUESTION: In the first place, it must be explained that a man can know. Now some deny this, as is clear from *Metaphysics IV*,<sup>25</sup> and the Philosopher<sup>26</sup> and the Commentator<sup>27</sup> argue against these in *Metaphysics IV* thus: whoever denies that there is knowledge claims certainty in this, that there is no knowledge, and no one has certainty in anything unless he knows about it. Therefore

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<sup>19</sup>Aristotle, *Metaphysics IX* 8, 1049b24-29. [sic]

<sup>20</sup>S.Q.O., a. 7, q. 5.

<sup>21</sup>S.Q.O., a. 7, q. 6.

<sup>22</sup>S.Q.O., a. 7, q. 5.

<sup>23</sup>S.Q.O., a. 7, q. 5.

<sup>24</sup>Aristotle, *Posterior Analytics I* 1, 71a1-11.

<sup>25</sup>Aristotle, *Metaphysics IV* 4-8, 1005bff.

<sup>26</sup>Aristotle, *Metaphysics IV* 8, 1012b13-22.

<sup>27</sup>Averroes, *On the Metaphysics IV* 6, t.c. 29.

whoever denies knowledge has assumed knowledge in himself, which cannot be unless it is possible for a man to know.<sup>28</sup>

3.20 In the same way, a natural desire is not for something impossible. But all men naturally desire to know; therefore it is not impossible for men to know.<sup>29</sup>

3.21 Again, Cicero argues against such in the book *Concerning Academics*<sup>30</sup> from their own confession. They claim that they themselves know and others are ignorant. But if it is not possible to know, they cannot distinguish the expert (*artifex*) from the ignorant. Again, he argues thus against them,<sup>31</sup> how will we dare to undertake or act in an affair in which nothing certain sought? In the same way, do not those who do not know which of these is best prefer as much to fall into the mire as to walk along a beautiful road?<sup>32</sup> Thus, then, it is clear that a man can know.

3.22 And that it is possible for a man to know for the first time is clear, since there is something you now know to be true that is true now, but was not true before, for instance, that I am sitting. Since, then, nothing is known except the true, and this is newly true, it is necessary that it be known for the first time.

3.23 But concerning the way in which one acquires knowledge, it must be known that a man sometimes acquires knowledge by himself, and sometimes through another. For just as in natural things, sometimes the principle agent within is so strong that without the aid of an external agent it can bring potentiality to actuality, and sometime it is weak enough so that it cannot do this without external help—for example, in a sick person, sometimes the natural power is so strong that it produces the actuality of health from its potentiality without any help from the external physician, and sometimes due to weakness it cannot without the aid of medicine<sup>33</sup>—in the same way, it happens that sometimes a man is so subtle that the aid of the light of the agent intellect alone he can bring forth from principles that are understood their proximate conclusions, and from these others, and so proceeding step by step, arrive at last at the ultimate particular conclusions cognizing a reality. And such a man can acquire knowledge without an external teacher. But when a man is not such by natural industry, then he cannot acquire perfect knowledge of anything by himself without an external teacher. Hence, briefly, just as health is sometimes brought about from an external agent, and sometimes from an internal agent, so it is with knowledge.<sup>34</sup>

3.24 But when knowledge is acquired from something external, then it is to be seen what the external teacher does in the acquisition of knowledge.

3.25 For this purpose, it must be know that just as those things which can come to be indifferently from art or nature arise from art and from nature in the same way and the same order<sup>35</sup>— for instance, it is

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<sup>28</sup>S.Q.O., a. 1, q. 1.

<sup>29</sup>S.Q.O., a. 1, q. 1. Cf. *Metaphysics* I 1, 980a1.

<sup>30</sup>Cicero, *Academica* II 7.

<sup>31</sup>Cicero, *Academica* II 8.

<sup>32</sup>Aristotle, *Metaphysics* IV 4, 1008b14-18.

<sup>33</sup>S.Q.O., a. 1, q. 5.

<sup>34</sup>S.Q.O., a. 1, q. 5.

clear of health, which is induced either by alteration or rearrangement, and arises in the same way when it is induced by art and when it is induced by nature, and the reason is that in every action in which the art communicates with nature, the art operates not as the principal agent, but only as an assisting agent. Hence the doctor is said to minister to nature, and it is so in knowledge, for in one way it is produced from within, as was said of he who acquires knowledge by discovery, and in another way from without, for instance, by a doctor outside. Therefore, just as one acquiring knowledge by himself proceeds from a cognition of principles to proximate conclusions, and from these to others, and in such a process he does not err, thus one teaching from without must have at hand ordered concepts from principles and conclusions. And one must proceed thus in teaching the student: first the first principles known per se are to be proposed, then conclusions, and this by applying those principles to determinate conclusions, and afterwards from those conclusions other conclusions, and thus up to the ultimate conclusions. One unfolds this discourse for the student, so that the student may, through those signs, order in himself concepts which he cannot order or know by himself. Hence, briefly, the teacher does not teach in any other way than by proposing signs of ordered concepts, for instance, first the sign of a principle, then the sign of a conclusion, so that, through signs presented thus, the student can obtain ordered concepts.<sup>36</sup>

3.26 Thus did Plato<sup>37</sup> propose the principles of geometry to a boy, who answered well, and from this he concluded that the boy had known the conclusions of geometry before. Hence, if anyone knows how to order his concepts in the proper way, he has no need of an external teacher. And since concepts ordered thus are proximate and per se causes of teaching, and the external ordering of utterances is nothing except a sign directing the reason in its concepts, therefore the external teacher is not the cause why knowledge is acquired in the student except accidentally, namely, by ordering the utterances, but an internal formula is the per se cause, that is, by ordering internal concepts in which the truth of the reality is taken up immediately.<sup>38</sup>

3.27 Therefore Grosseteste says,<sup>39</sup> "I call not only what we hear from the mouth of a teacher teaching, but I also take writing in the place of a teacher, and if would speak more truly, neither does he who sounds outside teach, nor do the letters that are seen written outside, but these two only admonish and incite us. The truer teacher is he who illuminates the mind within and shows us the truth." And that interior illuminator of the mind is reason, ordering in a proper way the concepts of the principles and the conclusions, and therefore the external teacher does not teach except accidentally.

3.28 Henry of Ghent advances an example of this.<sup>40</sup> If anyone is intent on viewing a certain star, and

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<sup>35</sup>Aristotle, *Physics* II 8, 199a12-15.

<sup>36</sup>S.Q.O., a. 1, q. 6.

<sup>37</sup>Plato, *Meno* 82-86.

<sup>38</sup>S.Q.O., a. 1, q. 6.

<sup>39</sup>Grosseteste, *In Post. Anal.* I.1.

<sup>40</sup>Aristotle, *Physics* VI 2, 233a22-23.

moving his eyes about he does not perceive the star, and another points his finger directly at the star, and by this action he comes to see the star, it is certain that this finger does not make him see the star *per se*, since it impresses nothing upon his vision. But the brightness of the star makes him see the star, and the finger leads him to see the star. In the same way, the external teacher only leads one, and is not the *per se* cause of knowledge.

3.29 IN RESPONSE TO THE FIRST ARGUMENT, it must be replied that the senses can grasp something with certainty, but still there is a doubt when the judgment of the senses is to be believed, and when not, since sometimes a deception occurs in the judgment of the senses, and sometimes it does not. It is necessary sometimes to believe the senses, for those who leave the senses and their judgment behind fall into absurd errors, as is clear from Zeno,<sup>41</sup> who said, because of a sophistical argument, that nothing can move, and from others who said that if one thing is moved all things move.<sup>42</sup>

3.30 It must be known, then, that a particular sense is always to be believed unless some more worthy sense in the same person at another time, or in another person at the same time, contradicts it, and some superior power perceives an impediment to the senses. For the senses are not equally well disposed in all things, nor in the same thing at different times. Therefore their judgments are not equally to be believed. A healthy sense of taste is more to be believed than one that is ill, and he who sees something nearby is more to be believed than he who sees it from afar off, and in the same way, he who sees something through an uniform medium, and so on for other conditions. Since, briefly, a sense that is not deceived is always to be believed, but when the sense is deceived and when it is not, the intellect must judge from much experience.<sup>43</sup>

3.31 And when it is argued on the contrary "insofar as something appears through a sense to be as it is in the truth of reality, thus far it is possible that something should appear such as it is not in the truth of reality," it must be replied that this is true; and still someone can judge with certainty concerning one judging it to be such as it appears, and judge with certainty concerning another judging it to be such as it does not appear, for instance, someone who is an expert in the relevant art. Hence this judgment can occur through the senses. For the senses when they are able (*habilitatus*, perhaps, "experienced") in such things are not deceived about such things. Hence someone with much practice in calculating money will immediately judge and distinguish a tin coin from a silver one, when another, who has not much practice in such things, does not know how to judge which is the silver and which the tin coin. Hence an accumulation of experience makes one's senses, in regard to the relevant sensibles, such that a man can judge rightly of those sensibles through his senses.<sup>44</sup>

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<sup>41</sup>Aristotle, *Physics* VI 9, 239b10 ff.

<sup>42</sup>S.Q.O., a. 1, q. 1. The reference to the "others" is not yet found.

<sup>43</sup>S.Q.O., a. 1, q. 1.

<sup>44</sup>S.Q.O., a. 1, q. 1.

3.32 And if it is replied that the senses are not deceived about their proper sensibles, <sup>45</sup> then it is seen that the sense always judges correctly, here it can be said that the senses are not deceived about their proper sensibles, but man is deceived in many ways through the senses. Or, in another way, that, when every impediment is removed, the senses are never deceived about their proper sensibles, that is, if there is no impediment on the part of the organ, nor on the part of the object, nor on the part of the medium, and so on for the rest.

3.33 AS FOR THE SECOND PRINCIPLE ARGUMENT, that "learn" in one is taken for acquisition of any knowledge for the first time, and thus anyone learns something for the first time who knew nothing of it beforehand. In another way "learn" is taken for acquisition of knowledge of a conclusion in a demonstration. And in this way this is true, "whoever knew nothing, learned nothing," since whoever acquired cognition of a conclusion must have known that it is so from a cognition of the principles.

3.34 But there is a doubt, if someone can acquire some cognition, or learn, who knew nothing at all beforehand. It must be replied that just as ignorance is two-fold, namely ignorance of negation and ignorance of disposition, as we know from the first book of this work, <sup>46</sup> in the same way knowledge is two-fold, one which is opposed to the ignorance of negation, and the other which is opposed to the ignorance of disposition. The ignorance of negation removes every act of knowledge, perfect and imperfect, but the ignorance of disposition removes the perfect act of knowledge. If, then, we name "knowledge" every motion to knowledge, whether it be from the ignorance of negation or of disposition, in this way it is necessary to hold that someone can learn without knowing anything beforehand. But if "learn" is taken more narrowly for a motion from the ignorance of disposition, in this way it must be said that whoever learns earlier knew something; and thus the doctrine is accepted in the beginning of this book when it is said "every teaching etc."<sup>47</sup>

3.35 Now some say<sup>48</sup> that in the beginning everything is known in the universal, and unknown in its proper form, but this is worth nothing, for my soul in the beginning of its creation knew nothing. It was like a blank tablet upon which nothing has been depicted, as the Philosopher says. <sup>49</sup> But if they want it to be understood thus, that the soul in the beginning understood all things in the universal and that it has a confused potentiality for all the knowledge that it has, that understanding is good. Hence it must be known that just as in matter there are as many matters as forms that can be led into matter, so that to each form to be led into matter there corresponds a proper potentiality in matter, so in the soul there are as many capacities and as many abilities ( *habilitates*) as there are pieces of knowledge or awareness that can be acquired by the soul. And therefore just as matter contains every form in the universal, since there is a

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<sup>45</sup>Aristotle, *On the Soul* II 6, 418a8-17.

<sup>46</sup>Aristotle, *Posterior Analytics* I 2, 72a14-18.

<sup>47</sup>S.Q.O., a. 1, q. 10.

<sup>48</sup>Grosseteste, I 1.

<sup>49</sup>Aristotle, *On the Soul* III 4, 429b31-430a2.

potentiality in the matter for every form that is to be led into the matter, so the intellect cognizes everything in the universal, since in the intellect there are potentialities in respect of knowledge about every knowable.<sup>50</sup>

3.36 And since it is argued concerning the act of playing the lyre, it must be said that whoever plays the lyre known in some way how to play the lyre, even if it is imperfectly, and he learns to play the lyre more perfectly. And if it is argued "In that way in which he plays the lyre, he does not learn to play the lyre except by playing the lyre, therefore he played the lyre before, and another after that, and so on indefinitely," it must be replied that if anyone now plays the lyre for the first time, he knows how to play the lyre, and he does not learn how to play the lyre, but he knows how to play the lyre in this way, because he is naturally disposed and made able ( *habilitatus*) to play the lyre. Hence the Commentator in the comment adduced,<sup>51</sup> says that it is impossible for anything to become anything unless it has something naturally because of which it will have it afterwards, and therefore a donkey does not learn the art of playing the lyre.

3.37 And thus it is clear how to respond to the confirmation, when it is claimed that everything that moves has some part of that to which it moves, this is to be understood thus: that which moves to something, for instance, to knowledge, is naturally made able in respect of that to which it is moved. Or otherwise, that what moves to something, when it is in movement, has part of that to which it moves, but before it is in movement this is not necessary. And therefore whoever learns something, when he is actually learning, has some cognition of that about which he learns; but before he is learning, it is not necessary that he cognize any of it.

3.38 AS FOR THE OTHER <THIRD> PRINCIPLE ARGUMENT, when it is claimed that every knowledge arises from the cognition of principles, it must be replied that knowledge is two-fold, namely sensitive and intellective. And intellective knowledge is two-fold, namely of the conclusion and of the principles. Every knowledge of the conclusion is from preexisting cognition of principles, and knowledge of principles is from preexisting cognition of the terms, since we cognize principles insofar as we cognize terms. And knowledge of terms arises from preexisting sensitive cognition, but there it stops, since sensitive cognition does not arise from any preexisting cognition.

3.39 AS FOR THE OTHER <FOURTH> PRINCIPLE ARGUMENT, one must reply by granting that knowledge does not occur except of the fixed and permanent, since knowledge does not occur except of universals which are in themselves permanent and incorruptible. Hence, concerning sensible realities which are not permanent there is no knowledge, but only of the universals that have being in sensible realities, and such are fixed and permanent.<sup>52</sup>

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<sup>50</sup>S.Q.O., a. 1, q. 11. Cf. Aristotle, *On the Soul* III 4-5, 429a10-430a25.

<sup>51</sup>Averroes, *On the Metaphysics* IX 8, t.c. 14. Cf. *Metaphysics* IX 8, 1049b29-1050a3; *Posterior Analytics* I 1, 71b5-8.

<sup>52</sup>S.Q.O., a. 1, q. 1.

3.40 AS FOR THE OTHER <FIFTH> PRINCIPLE ARGUMENT, that a man can have cognition of the essence of a reality, nor does he perceive the image of the reality alone, just as it is assumed in arguing. Hence, even though the species of a stone is in the soul and the stone is not, the intellect still cognizes the stone rather than its species primarily. For the species of the stone is that by which the stone is cognized by the mind, and it is not that which is primarily cognized.

3.41 AS FOR THE OTHER <SIXTH> PRINCIPLE ARGUMENT, <it is replied> that a man can acquire knowledge for the first time through inquiry. And since it is claimed that a natural capacity is naturally capable in its operation, it must be replied that since the intellect is a natural capacity, therefore it has naturally the ability to have a science through inquiry. For it is natural to the intellect to acquire knowledge through discursive thought.<sup>53</sup>

3.42 As for the other, <it is replied> that nature is not lacking in what is necessary when nature gives that through which what is necessary can be acquired. For food and clothing are necessary to animals, but nature does not give them immediately, nor yet is it lacking in what is necessary, since it gives something using which such things can be acquired. Thus, since nature gives natural capacities to the soul through which it can acquire knowledge, therefore it is not lacking in what is necessary.<sup>54</sup>

3.43 As for the other, it is said in one way that some operations of the intellect are more perfect than any operation of the senses, so that understanding first principles and things of this sort are. But considering its secondary operation, which is scientific knowing, which one does not arrive at <immediately> by investigation, in respect of this it is more imperfect. Or, in another, better, way, it can be replied that the action of the senses is without any discursive process ( *discursu*) more because of imperfection than because of its perfection, and the discursive process is more because of perfection. For example, a body is called more perfect in health that acquires perfect health, even though this is by many operations, than that which acquires imperfect health through one operation alone. And so, even if knowing is acquired through a discursive process and many operations, still it is more perfect than sensing, which is acquired by one operation alone. But the way of acquiring knowledge is perhaps less perfect than the way of acquiring the operation of the senses. But I do not assert this.<sup>55</sup>

3.44 AS FOR THE OTHER <SEVENTH> PRINCIPLE ARGUMENT, <I reply> that a man can acquire knowledge, both by discovering it on his own and also from another.

3.45 In response to the first form of the argument, I say that even if a man acquires knowledge by discovering it for himself, still he must not be called his own teacher, the reason for this being that every agent exists actually according to that form by which it acts, and this is as clear in the case of a principal agent as in that of an instrumental agent. But one who is learning or discovering knowledge is only

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<sup>53</sup>S.Q.O., a. 1, q. 4.

<sup>54</sup>S.Q.O., a. 1, q. 4.

<sup>55</sup>S.Q.O., a. 1, q. 4.

potentially a knower, and therefore it must not be called a teacher. <sup>56</sup> Hence it must be known that there is one reason for which someone is called teacher, and another for which he is called a cause of teaching. For he is called a teacher because he acts, by causing knowledge of the sort he has, but he is called the cause of teaching no matter whether he causes such knowledge as he has or some other. Hence, since one discovering knowledge does not cause such knowledge as he has in himself, but some new knowledge that he did not have before, he ought not to be called teacher, though he can be called the cause of teaching.<sup>57</sup>

3.46 As for the other argument, it must be replied that a man in learning from another does not seek knowledge in vain, even if he could acquire the knowledge by himself, for when a man can acquire knowledge with less difficulty from another than by himself, he also does not, for that reason, seek knowledge in from another.<sup>58</sup>

3.47 As for the other, I grant that nothing proceeds from potentiality to actuality except through something that is actual of the same sort as what it is potentially. And therefore whoever is discovering knowledge for himself must actually know, and through the knowledge which he has he acquires some other knowledge, just as one part of a sick animal is healed through the health in another part. Hence whoever discovers knowledge discovers knowledge considered as he is an actual knower, for it is as such that he leads himself from potentiality to actuality, but knowledge is nonetheless acquired by him as he has the potentiality for that knowledge which he acquires.<sup>59</sup>

3.48 AS FOR THE OTHER <EIGHTH> PRINCIPAL ARGUMENT, it must be replied that someone can acquire knowledge from another, and that other proposes to him something known when he learns from him. Hence, even if someone proposes something unknown in the beginning, from the frequent application of those signs to what they signify it becomes known that such as these are signs of those. Now in this way someone learns a language for the first time. For if someone were in Greece who did not know Greek, at first everything that was proposed to him would be unknown, but from their frequent application they would become known. And since it is said that if things that are known are proposed to him, then the realities signified by such signs are known, it must be replied that they are known considered as something, for they are known by an incomplete knowledge, namely <the knowledge> that such realities are signified by such names, and this is not cognizing realities perfectly. I can cognize what is signified by a name even if I do not cognize the reality perfectly, for the real essence and the nominal essence differ.

3.49 AS FOR THE LAST <NINTH>, it is replied that knowledge is not an active quality, since according to what was said, the external teacher is not the principal cause in respect of the knowledge engendered in the soul of the student. And therefore his knowledge is not an active quality.<sup>60</sup>

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<sup>56</sup>S.Q.O., a. 1, q. 9.

<sup>57</sup>S.Q.O., a. 1, q. 9.

<sup>58</sup>S.Q.O., a. 1, q. 5.

<sup>59</sup>S.Q.O., a. 1, q. 5.

<sup>60</sup>S.Q.O., a. 1, q. 6.