

jects of this sort are not *per accidens* sense objects. First is because common sense objects of this sort are proper to the common sense—in the way that the proper sense objects are proper to individual senses. Second is because proper sense objects cannot exist without common sense objects, whereas they can exist without *per accidens* sense objects.

90–98. /390/ Each of these replies, however, is inadequate. The first is inadequate because it is false that those common sense objects are the proper objects of the common sense.³ For, as will be clear below [III.1.425a16, III.3.427a9–16], the common sense is a certain power at which all sensory alterations (*immutaciones*) terminate.⁴ That is why it is impossible for the common sense to have a proper object that is not the object of a proper sense.

98–105. But with respect to these alterations of the proper senses from their objects, the common sense does have some proper operations that the proper senses cannot have: it perceives the sensory alterations themselves and distinguishes between sense objects of different senses. For it is through the common sense that we perceive that we see and distinguish between white and sweet.

106–118. /391/ Moreover, even if common sense objects were the proper objects of the common sense, that would not rule out their being sensible *per accidens* with respect to the proper senses. For the question here concerns things that can be sensed as regards their relationship to the proper senses; the power of the common sense has not yet been explained. But that which is the proper object of any internal power can be sensible *per accidens*, as will be said below [182–222]. Nor is it surprising that what is sensible *per se* to one of the external senses is sensible *per accidens* with respect to another sense. Something sweet, for instance, is visible *per accidens*.

119–124. /392/ The second argument is also not adequate. For it is irrelevant to being sensible *per accidens* whether the subject of the sensible quality is or is not its subject *per se*. For no one would say that fire, which is the proper subject of heat, is sensible *per se* to touch.

3. Albert the Great had argued that the common sense objects are in fact objects of the common sense. See *Summa de homine* (*Opera omnia*, vol. 30), edited by A. Borgnet (Paris: Vivès, 1896), vol. 35, q. 35, a. 4 (pp. 315–318).

4. Here and in the following chapters, I use 'alteration' to translate *immutatio*. Aquinas relies heavily on this term to explain the way in which sensory things make an impression on the senses. 'Alteration' is the most comfortable and natural English word available, but readers should be aware that this is not standing for the Latin *alteratio*, which refers to a specific kind of Aristotelian change: change with respect to quality (see *Physics* V.226a25). Because the sensory *immutatio* in question is in fact a kind of alteration (a reception of a sensible quality), the translation should not be misleading.

125–134. /393/ And so one should answer in a different way. Sensing consists in a kind of being affected and being altered (*alterari*), as was said earlier [II.10.416b33–34]. Therefore, whatever makes a difference to a sense's being affected or altered has *per se* a relationship to the sense and is said to be sensible *per se*. But that which makes no difference in how a sense is altered (*immutacionem*) is said to be sensible *per accidens*. That is why the Philosopher says in the text [418a23–24] that "by the (*per accidens*) sense object," sense "is not affected in virtue of being such."

134–144. /394/ But there are two ways in which something can make a difference in how a sense is altered. It can do so in one way in virtue of the kind (*speciem*) of agent it is. It is in this way that *per se* sense objects make a difference in how a sense is altered—inasmuch as this one is a color, that one a sound, this one white, that one black. For, among things active on the senses, the *proper* objects of sense are those kinds for which a sensory power is naturally suited. As a result, the senses are distinguished in terms of the differences among these sense objects.

144–159. Other things make a difference in how a sense is altered not in virtue of the agent's kind but in virtue of the way it acts. For sensible qualities move a sense corporeally and with respect to position. Thus they move a sense in different ways insofar as they are in a larger or smaller body, and insofar as they are in a different position—viz., closer or farther, the same or different. And this is how common sense objects make a difference in how the senses are altered. For it is clear that either size or position is made to differ with respect to all five of these [common sense objects]. And because they do not have a relationship to a sense as do the kinds (*species*) of the active [objects], it follows that we do not draw distinctions among the sensory powers in accord with them.⁵ Instead, [these objects] remain common to more than one sense.

Why Something Is Said to Be Sensible Per Accidens

161–163. /395/ So now that we have seen how both common and proper sense objects are said to be sensible *per se*, it remains to be seen why something is said to be sensible *per accidens*.

164–174. So it is important to know that for something to be sensible *per accidens*, the first thing that is required is that it be an accident of something sensible *per se*. For example, being a human being applies accidentally (*accidit*) to what is white, as does being sweet. The second thing required is that it be apprehended by the thing that is sensing. For if there were some accident

5. Compare 68–70: "The defining character of any power consists in its relationship to its proper object."

of the sense object that was hidden from the thing sensing, that would not be said to be sensed *per accidens*. It must then be cognized *per se* by some other cognitive power belonging to the thing sensing; this will, of course, be either another sense, intellect, or the cogitative/estimative power.

175–181. I speak of “another sense” as if we were to say that sweet is visible *per accidens* insofar as sweet is accidental to white, which is apprehended by sight, whereas sweet is apprehended *per se* by taste. /396/ But, to speak strictly, this is not something altogether sensible *per accidens*, but rather something visible *per accidens* and sensible *per se*.

182–190. What is not cognized by a proper sense is, if it is something universal, apprehended by intellect. Still, not everything that can be apprehended by intellect in something that has been sensed can be called sensible *per accidens*, but [only] that which is apprehended by intellect right when the thing that has been sensed is encountered. For example, right when I see someone speaking or moving, apprehending through intellect his being alive, I can say on this basis that I see that he is living.

191–205. If, however, [the object] is apprehended as an individual—e.g., when I see something colored I perceive this human being or this animal—then this sort of apprehension in a human being is produced through the cogitative power. This is also called particular reason, because it joins individual intentions in the way that universal reason joins universal concepts (*rationum*).⁶ /397/ But all the same, this power is in the soul’s sensory part. For the sensory power, at its highest level, participates somewhat in the intellectual power in a human being, in whom sense is connected to intellect. In an irrational animal, on the other hand, the natural estimative power brings about the apprehension of an individual intention. It is in virtue of this that a sheep, through hearing or sight, recognizes its offspring or anything of that sort.

205–222. /398/ The cogitative and estimative powers stand differently in this regard.⁷ For the cogitative power apprehends an individual as existing under a common nature. It can do this insofar as it is united to the intellectual power in the same subject. Thus it cognizes this human being as it is this human being, and this piece of wood as it is this piece of wood. But the esti-

6. This use of the term ‘intention’ is drawn from Avicenna’s *Liber de anima* I.5 (85.88–86.6), where he distinguishes two kinds of sensory representations: forms and intentions. Whereas forms are apprehended by the five external senses and passed on to the inner senses, intentions are perceived only by inner senses, such as the cogitative power.

7. As the above remarks suggest, the cogitative power is found only in human beings, whereas (some) nonrational animals have the estimative power. These so-called inner senses have similar functions, although Aquinas is now going to point to an important difference in their operations.

mative power apprehends an individual, not in terms of its being under a common nature, but only in terms of its being the end point or starting point of some action or affection. It is in this way that a sheep recognizes the lamb not inasmuch as it is this lamb but inasmuch as it can nurse it. It recognizes this grass inasmuch as it is its food. Thus its natural estimative power in no way apprehends any individual to which its acting or being affected does not extend. For the natural estimative power is given to animals so that through it they are directed toward the proper actions or affections that should be pursued or avoided.

habitual knowledge of those principles comes to exist in us after previously not existing, or have they always been in us but escaped our notice.

Then (99b26) he objects to the last question to which the others are ordered. First, he objects to the second side, saying that it is absurd to claim that we have the habitual knowledge of these principles but they escape our notice. For it is obvious that those who have knowledge of the principles have a knowledge which is more certain than that which is acquired through demonstration. But knowledge through demonstration cannot be had such that it escapes the notice of the one having it. For it was established in the beginning of this book that a person who has scientific knowledge of something knows that it is impossible for it to be otherwise. Therefore, it is far less possible for someone having a knowledge of the first principles to have it escape his notice. Yet this absurdity would follow, if habitual knowledge of this kind were in us but escaped our notice.

Secondly (99b28), he objects to the other side. For if a person states that we acquire these habits or principles *de novo* after previously not having them, we are left with the further problem of how we can know and learn such principles *de novo* without some previous knowledge existing in us: for it is impossible to learn anything save from pre-existing knowledge, as we have established above in regard to demonstration. But the reason why we cannot learn the immediate principles from pre-existing knowledge is that pre-existing knowledge is more certain, since it is a cause of certitude of the things which are made known through it. But no knowledge is more certain than the knowledge of these principles. Hence it does not seem that we can begin to know them, when previously we did not know.

Thirdly (99b30), he concludes from the above two arguments that it is neither possible always to have had the knowledge of these principles but it escaped our notice, nor possible that such knowledge is generated *de novo* in us to supplant a state of absolute ignorance in which no other habitual knowledge was possessed.

Then (99b32) he solves these questions. First, he solves the last one. Secondly, he solves the first two (100b5). In regard to the first he does three things. First, he proposes that some principle of knowing must pre-exist in us. Secondly, he shows what it is (99b34). Thirdly, he shows how from a pre-existing principle of knowing we attain the knowledge of principles (100a4).

He says therefore first (99b32), that there must be in us from the beginning a certain cognitive power that exists previously to the knowledge of principles, but not such that it is stronger as to certitude than the knowledge of principles. Hence the knowledge of principles does not

come about in us from pre-existing knowledge in the same way as things which are known through demonstration.

Then (99b34) he shows what that pre-existing cognitive principle is. Apropos of this he posits three grades among animals. The first of these is something which seems to be common to all animals, namely, that they have a certain connatural faculty [i.e., potency, i.e., power] for estimating about sense-perceptible things. This faculty, which is not acquired *de novo* but follows upon their very nature, is called *sense*.

Then (99b36) he mentions the second grade, saying that although sense is found in all animals, in some of them a sensible impression remains after the sense-object is removed, as happens in all the perfect animals. But in certain others this does not occur, as in certain imperfect animals; say in those which are not capable of progressive local movement. And it might perhaps be that in regard to some animals an impression remains in regard to certain sense-objects which are more vigorous, and not in regard to those which are weaker. Therefore, those animals in which no impression of sensible objects remains at all have no knowledge except when they are sensing. Similarly, in regard to animals in which such an impression is apt to remain, if it does not remain in them in the case of certain sensible objects, they cannot have any knowledge of them except while they are sensing. But animals, in which a trace of such an impression remains, are capable of having some knowledge in the mind beyond sense; and these are the animals which have *memory*.

Then (100a1) he shows, in view of the foregoing, how the knowledge of first principles comes about in us; and he concludes from the foregoing that from sensing comes remembrance in those animals in which a sensible impression remains, as has been stated above. But from remembrance many times repeated in regard to the same item but in diverse singulars arises *experience*, because experience seems to be nothing else than to take something from many things retained in the memory.

However, experience requires some reasoning about the particulars, in that one is compared to another: and this is peculiar to *reason*. Thus, when one recalls that such a herb cured several men of fever, there is said to be experience that such a herb cures fevers. But reason does not stop at the experience gathered from particulars, but from many particulars in which it has been experienced, it takes one common item which is consolidated in the mind and considers it without considering any of the singulars. This common item reason takes as a principle of art and science. For example, as long as a doctor considered that this herb cured Socrates of fever, and Plato and many other individual men, it is *experience*; but when his considerations arise to the fact that such a species of herb heals a fever absolutely, this is taken as a *rule of the art of medicine*.

This, then, is what he means when he says that just as from memory is formed experience, so from experience or even from the universal resting in the mind (which, namely, is taken as if it is so in *all* cases, just as experience is taken as being so in certain cases.—This universal is said to be resting in the mind, inasmuch as it is considered outside the singulars which undergo change. Furthermore, he says that it is *one outside the many*, not according to an autonomous existence *but according to the consideration of the intellect which considers a nature, say of man, without referring to Socrates and Plato. But even though it is one outside the many according to the intellect's consideration*, nevertheless in the sphere of existents it exists in all singulars one and the same: not numerically, however, as though the humanity of all men were numerically one, but according to the notion of the species. For just as *this white* is similar to *that white* in whiteness, not as though there were one numerical whiteness existing in the two, so too Socrates is similar to Plato in humanity, but not as though there were numerically one humanity existing in the two.—) the principle of *art* and *science* is formed in the mind.


And he distinguishes between art and science, just as he did in *Ethics* VI, where it is stated that *art* is right reason in regard to things to be made. And so he says here that if from experience a universal in regard to generation is taken, i.e., in regard to anything that can be made, say in regard to healing or husbandry, this pertains to *art*. *Science*, however, as it is stated in the same place, is concerned with necessary things; hence if the universal bears on things which are always in the same way, it pertains to *science*; for example, if it bears on numbers or figures. And this process which has been described is verified in regard to the principles of all sciences and arts. Hence he concludes that there do not pre-exist any habits of principles in the sense of being determinate and complete; neither do they come to exist anew from other better known pre-existing principles in the way that a scientific habit is generated in us from previously known principles; rather the habits of principles come to exist in us from pre-existing sense.

And he gives as an example a battle which starts after the soldiers have been beaten and put to flight. For when one of the soldiers shall have taken a stand, i.e., begun to take a battle position and not flee, another takes his stand next to him, and then another, until enough are gathered to form the beginning of a battle. So, too, from the sense and memory of one particular and then of another and another, something is finally reached with is the principle of art and science, as has been stated.

But someone could believe that sense alone or the mere remembrance of singulars is sufficient to cause intellectual knowledge of principles, as some of the ancients supposed, who did not discriminate between sense

and intellect. Therefore, to exclude this the Philosopher adds that along with sense it is necessary to presuppose such a nature of mind as cannot only suffer this (i.e., be susceptible of universal knowledge, which indeed comes to pass in virtue of the *possible intellect*) but can also cause this in virtue of the *agent intellect* which makes things intelligible in act by abstraction of universals from singulars.

Then (100a4) he elucidates something asserted in the preceding solution, namely, that the universal is taken from *experience* bearing on singulars. And he says that what was stated above, albeit not clearly—namely, how from the experience of singulars the universal is formed in the mind—must now be discussed again and explained more clearly. For if many singulars are taken which are without differences as to some one item existing in them, that one item according to which they are not different, once it is received in the mind, is the first universal, no matter what it may be, i.e., whether it pertains to the essence of the singulars or not. For since we find that Socrates and Plato and many others are without difference as to whiteness, we take this one item, namely, white, as a universal which is an accident. Similarly, because we find that Socrates and Plato and the others are not different as to rationality, this one item in which they do not differ, namely, rational, we take as a universal which is an essential difference.

But how this one item can be taken he now explains. For it is clear that sensing is properly and *per se* of the singular, but yet there is somehow even a sensing of the universal. For sense knows Callias not only so far forth as he is Callias, but also as he is this man; and similarly Socrates, as he is this man. As a result of such an attainment pre-existing in the sense, the intellective soul can consider man in both. But if it were in the very nature of things that sense could apprehend only that which pertains to particularity, and along with this could in no wise apprehend the nature in the particular, it would not be possible for universal knowledge to be caused in us from sense-apprehension. 

Then he manifests this same point in the process which goes from species to genus. Hence he adds: "Again in these," namely, in man and horse, "the mind lingers in its consideration, until it attains to something indivisible in them, which is universal." For example, we consider such an animal and another one, say a man and a horse, until we arrive at the common item, "animal," which is universal; and in this genus we do the same until we arrive at some higher genus. Therefore, since we take a knowledge of universals from singulars, he concludes that it is obviously necessary to acquire the first universal principles by induction. For that is the way, i.e., by way of induction, that the sense introduces the universal into the mind, inasmuch as all the singulars are considered.

Then (100b5) he solves the first two question, namely, whether the

imitate the true."⁵ Now, a sense has at times a likeness of certain things other than they are in reality. For example, when the eye is pressed, one thing is sometimes seen as two. Consequently, there is falsity in sense.

3'. The answer was given that sense is not deceived with regard to proper sensibles, but only with regard to common sensibles.—On the contrary, whenever something is apprehended about a thing other than it is, the apprehension is false. Now, when a white body is seen through a green glass, the sense apprehends it other than it is, for it sees it as green and judges accordingly—unless a higher judgment is present, detecting the falsity. Therefore, sense is deceived even with regard to proper sensibles.

REPLY:

Our knowledge, taking its start from things, proceeds in this order. First, it begins in sense; second, it is completed in the intellect. As a consequence, sense is found to be in some way an intermediary between the intellect and things; for with reference to things, it is, as it were, an intellect, and with reference to intellect, it is, as it were, a thing. Hence, truth or falsity is said to be in sense in two respects. The first is in the relation of sense to intellect. In this respect, the sense is said to be true or false as a thing is, namely, in so far as it causes a true or false judgment in the intellect. The second respect is in the relation of sense to things. In this, truth and falsity are said to be in sense as they are said to be in the intellect, namely, in so far as the sense judges that what is, is or is not.

Hence, if we speak of a sense in the first meaning, in a way there is falsity in sense, and in a way there is not. For sense, in itself, is a thing; and it also passes judgment on other things. If, in its relation to the intellect, it is considered as a thing, then there is no falsity in sense; for a sense reveals its state to the intellect exactly as it is affected. Hence, Augustine says, in the passage referred to: "The senses can report to the mind only how they are affected."⁶ On the other hand, if sense is considered in its relation to the intellect as representing some other thing, it may be called false in view of the fact that it sometimes represents a thing to the intellect other than it actually is. For, in that case, as we said about things,⁷ it is such as to cause a false judgment in the intellect—but not necessarily, since the intellect judges on what is presented by sense just as it judges about things. Thus, in its relation to the intellect, sense always produces a true judgment in the intellect

with respect to its own condition, but not always with respect to the condition of things.

If sense is considered in its relation to things, however, then there are truth and falsity in sense in the manner in which these are in the intellect. For truth and falsity are found primarily and principally in the judgment of the intellect as it associates and dissociates, and in the formation of quiddities, only in their relation to the judgment following upon this formation. Hence, truth and falsity are properly said to be in sense inasmuch as it judges about sensible objects, but inasmuch as it apprehends a sensible object, there is not properly truth or falsity, except in the relation of this apprehension to the judgment, in so far as a judgment of this or that sort naturally follows upon a particular apprehension.

The judgment of sense about certain things—for example, proper sensibles—takes place spontaneously. About other things, however, it takes place by means of a certain comparison, made in man by the cogitative power, a sense power, whose place in animals is taken by a spontaneous estimation. This sensitive power judges about common sensibles and accidental sensibles. However, the spontaneous action of a thing always takes place in one way, unless by accident it is impeded intrinsically by some defect or extrinsically by some impediment. Consequently, the judgment of sense about proper sensibles is always true unless there is an impediment in the organ or in the medium; but its judgment about common or accidental sensibles is sometimes wrong. Thus, it is clear how there can be falsity in the judgment of sense.

As regards the apprehension of the senses, it must be noted that there is one type of apprehensive power, for example, a proper sense, which apprehends a sensible species in the presence of a sensible thing; but there is also a second type, the imagination, for example, which apprehends a sensible species when the thing is absent. So, even though the sense always apprehends a thing as it is, unless there is an impediment in the organ or in the medium, the imagination usually apprehends a thing as it is not, since it apprehends it as present though it is absent. Consequently, the Philosopher says: "Imagination, not sense, is the master of falsity."⁸

Answers to Difficulties:

1. In the macrocosm the higher bodies do not receive anything from the lower. Just the opposite occurs. In man, the microcosm, the intel-