

PHRU 1000 Philosophy of Human Nature

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PLATO: Seventh Letter

I hear too that he [Dionysius] has since written on the subjects in which I instructed him at that time, as if he were composing a handbook of his own which differed entirely from the instruction he received. Of this I know nothing. I do know, however, that some others have written on these same subjects, but who they are they know not themselves. One statement at any rate I can make in regard to all who have written or who may write with a claim to knowledge of the subjects to which I devote myself—no matter how they pretend to have acquired it, whether from my instruction or from others or by their own discovery. Such writers can in my opinion have no real acquaintance with the subject. I certainly have composed no work in regard to it, nor shall I ever do so in future, for there is no way of putting it in words like other studies. Acquaintance with it must come rather after a long period of attendance on instruction in the subject itself and of close companionship, when, suddenly, like a blaze kindled by a leaping spark, it is generated in the soul and at once becomes self-sustaining.

Besides, this at any rate I know, that if there were to be a treatise or a lecture on this subject, I could do it best. I am also sure for that matter that I should be very sorry to see such a treatise poorly written. If I thought it possible to deal adequately with the subject in a treatise or a lecture for the general public, what finer achievement would there have been in my life than to write a work of great benefit to mankind and to bring the nature of things to light for all men? I do not, however, think the attempt to tell mankind of these matters a good thing, except in the case of some few who are capable of discovering the truth for themselves with a little guidance. In the case of the rest to do so would excite in some an unjustified contempt in a thoroughly offensive fashion, in others certain lofty and vain hopes, as if they had acquired some awesome lore.

It has occurred to me to speak on the subject at greater length, for possibly the matter I am discussing would be clearer if I were to do so. There is a true doctrine, which I have often stated before, that stands in the way of the man who would dare to write even the least thing on such matters, and which it seems I am now called upon to repeat.

For everything that exists there are three classes of objects through which knowledge about it must come; the knowledge itself is a fourth, and we must put as a fifth entity the actual object of knowledge which is the true reality. We have then, first, a name, second, a description, third, an image, and fourth, a knowledge of the object. Take a particular case if you want to understand the meaning of what I have just said; then apply the theory to every object in the same way. There is something for instance called a circle, the name of which is the very word I just now uttered. In the second place there is a description of it which is composed of nouns and verbal expressions. For example the description of that which is named round and circumference and circle would run as follows: the thing which has everywhere equal distances between its extremities and its center. In the third place there is the class of object which is drawn and erased and turned on the lathe and destroyed—processes which do not affect the real circle to which these other circles are all related, because it is different from them. In the fourth place there are knowledge and understanding and correct opinion concerning them, all of which we must set down as one thing more that is found not in sounds nor in shapes of bodies, but in minds, whereby

it evidently differs in its nature from the real circle and from the aforementioned three. Of all of these four, understanding approaches nearest in affinity and likeness to the fifth entity, while the others are more remote from it.

The same doctrine holds good in regard to shapes and surfaces, both straight and curved, in regard to the good and the beautiful and the just, in regard to all bodies artificial and natural, in regard to fire and water and the like, and in regard to every animal, and in regard to every quality of character, and in respect to all states active and the passive. For if in the case of any of these a man does not somehow or other get hold of the first four, he will never gain a complete understanding of the fifth. Furthermore these four [names, descriptions, bodily forms, concepts] do as much to illustrate the particular quality of any object as they do to illustrate its essential reality because of the inadequacy of language. Hence no intelligent man will ever be so bold as to put into language those things which his reason has contemplated, especially not into a form that is unalterable—which must be the case with what is expressed in written symbols.

Again, however, the meaning of what has just been said must be explained. Every circle that is drawn or turned on a lathe in actual operations abounds in the opposite of the fifth entity, for it everywhere touches the straight, while the real circle, I maintain, contains in itself neither much nor little of the opposite character. Names, I maintain, are in no case stable. Nothing prevents the things that are now called round from being called straight and the straight round, and those who have transposed the names and use them in the opposite way will find them no less stable than they are now. The same thing for that matter is true of a description, since it consists of nouns and of verbal expressions, so that in a description there is nowhere any sure ground that is sure enough. One might, however, speak forever about the inaccurate character of each of the four! The important thing is that, as I said a little earlier, there are two things, the essential reality and the particular quality, and when the mind is in quest of knowledge not of the particular but of the essential, each of the four confronts the mind with the unsought particular, whether in verbal or in bodily form. Each of the four makes the reality that is expressed in words or illustrated in objects liable to easy refutation by the evidence of the senses. The result of this is to make practically every man a prey to complete perplexity and uncertainty.

Now in cases where as a result of bad training we are not even accustomed to look for the real essence of anything but are satisfied to accept what confronts us in the phenomenal presentations, we are not rendered ridiculous by each other—the examined by the examiners, who have the ability to handle the four with dexterity and to subject them to examination. In those cases, however, where we demand answers and proofs in regard to the fifth entity, anyone who pleases among those who have skill in confutation gains the victory and makes most of the audience think that the man who was first to speak or write or answer has no acquaintance with the matters of which he attempts to write or speak. Sometimes they are unaware that it is not the mind of the writer or speaker that fails in the test, but rather the character of the four—since that is naturally defective. Consideration of all of the four in turn—moving up and down from one to another barely begets knowledge of a naturally flawless object in a naturally flawless man. If a man is naturally defective—and this is the natural state of most people's minds with regard to intelligence and to what are called morals—while the objects he inspects are tainted with imperfection, not even Lynceus could make such a one see.

To sum it all up in one word, natural intelligence and a good memory are equally powerless to aid the man who has not an inborn affinity with the subject. Without such endowments there is of course not the slightest possibility. Hence all who have no natural aptitude for and affinity with justice and all the other noble ideals, though in the study of other matters they may be both intelligent and retentive—all those too who have affinity but are stupid and unretentive—such will never any of them attain to an understanding of the most complete truth in regard to moral concepts. The study of virtue and vice must be accompanied by an inquiry into what is false and true of existence in general and must be carried on by constant practice throughout a long period, as I said in the beginning. Hardly after practicing detailed comparisons of names and definitions and visual and other sense perceptions, after scrutinizing them in benevolent disputation by the use of question and answer without jealousy, at last in a flash understanding of each blazes up, and the mind, as it exerts all its powers to the limit of human capacity, is flooded with light.

For this reason no serious man will ever think of writing about serious realities for the general public so as to make them a prey to envy and perplexity. In a word, it is an inevitable conclusion from this that when anyone sees anywhere the written work of anyone, whether that of a lawgiver in his laws or whatever it may be in some other form, the subject treated cannot have been his most serious concern—that is, if he is himself a serious man. His most serious interests have their abode somewhere in the noblest region of the field of his activity. If, however, he really was seriously concerned with these matters and put them in writing, 'then surely' not the gods, but mortals 'have utterly blasted his wits.'¹

¹ *Iliad* 7.360, 12.234.

Aristotle: On the Soul (with St. Thomas Aquinas's Commentary)

BOOK III, CHAPTER IV

THE INTELLECT IN GENERAL

As to the part of the soul by which it knows and is wise (whether separate spatially or only in idea) we must consider how it is differentiated and, further, how the operation of understanding arises. 671-4

For if understanding is like sensing, it will be some kind of reception from an intelligible object, or some thing of that nature. It must then be impassible and yet receptive of a species, which it must already be potentially but not actually: and as the sense faculty stands to the sense-object, so will the intellective to the intelligible. 675-6

It is also necessary, since its understanding extends to everything, that, as Anaxagoras says, it be uncompounded with anything so that it may command, i.e. know. For what appeared inwardly would prevent and impede what was without. Hence it has no nature and is not one, except in being potential. What then is called the 'intellect' of the soul (I mean that mind by which the soul forms opinions and understands) is not, before it understands, in act of any reality. 677-83

Hence, it is a reasonable inference that it is not involved in the body. Were it so, it would also have some quality either hot or cold, and it would have an organ, like the sensitive faculties; but there is in fact none such. 684-5

And they spoke to the point who said that the soul was the place of forms — yet not the whole soul, but the intellectual part; nor actually, but only potentially, is it any form. 686

That the impassibility of the sensitive faculty is not like that of the intellective faculty is evident from the organs and from sensation itself. For the sense cannot receive an impression from too violent a sense-object — e.g. a sound from very great sounds, whilst from over-powerful odors there comes no smell, nor from over-strong color any seeing. But when the intellect understands something highly intelligible, it does not understand what is inferior to these less than before, but more so. For whereas the sensitive faculty is not found apart from the body, the intellect is separate. 687-99

ST. THOMAS'S COMMENTARY: LECTIO SEVEN

671. Having treated of the sensitive part of the soul, and shown that to sense and to understand are quite distinct operations, the Philosopher now turns to the intellectual part. His treatment falls into two main divisions. First, he comes to certain conclusions on the intellectual part in general; after which, from what has been concluded about sense and intellect he deduces, at 'And now recapitulating',¹ some necessary consequences with regard to the soul as a whole. The former division falls into two sections: one on the intellect as such, and one comparing intellect with the senses. The latter begins at 'And it seems that the sense-object'.² The intellect as such is first treated in itself, and then, at 'Intelligence etc.',³ in its activity. The former part then subdivides again into three parts:

(a) on the potential intellect; (b) on the agent intellect;⁴ and (c) on intellect as in act.⁵ After defining the potential intellect,⁶ he determines its object,⁷ and then adduces an objection.⁸ The definition of potential intellect involves explanations (i) of its nature, and (ii) of the way it proceeds into act.⁹ And as to its nature, he first states the problems he is attempting to solve; after which, at 'For if understanding is like sensing',¹⁰ he propounds his own view.

672. So he says that, having dealt with the sensitive part of the soul, and shown that judgment and understanding differ from sensation, it is now time to discuss that part of the soul 'by which it knows', i.e. understands, and 'is wise'. We have already distinguished¹ between being wise and understanding;² to be wise pertains to intellectual judgment, to understand pertains to intellectual apprehension.

673. At this point an old problem emerges (which Aristotle for the time being sets aside), namely whether this part of the soul is a really separate being, distinct from the other parts, or is merely separable in thought. He refers to the former alternative when he speaks of being 'spatially' separable, and he uses this expression because Plato, who thought of the soul's parts as really distinct entities, associated the latter with different organs of the body. This problem Aristotle sets aside.

674. And he keeps two ends in view. One is to examine how this part of the soul differs from the others, if it can be separated from them in thought. And, as potencies are known from their acts, his second aim is to examine the act of understanding itself, i.e. how intellectual activity is completed.

675. Next, at 'For if understanding',³ he sets down his own view in three stages: (1) he suggests a similarity between intellect and sense; (2) whence he argues, at 'It is also necessary',⁴ to a conclusion touching the nature of the potential intellect; (3) whence in turn he deduces a difference between intellect and sense, at 'That the impassibility'.⁵

First of all then, as a preliminary to the statement of his own theory, he suggests that the acts of understanding and of sensing are similar, in that, just as sensing is a kind of knowing, and as it may be either potential or actual, so understanding is a kind of knowing which may be either potential or actual. Whence it follows that, as sensing is a certain state of being passive to a sensible object (something like a passion in the strict sense of the term) so understanding is either a being passive to an intelligible object, or something else that resembles passion, in the strict sense.

676. Of these alternatives the second is the more likely to be true. For even sensing, as we have seen,⁶ is not strictly a being passive to anything — for this, strictly, involves an object of a nature contrary to the passive subject. Yet sensing resembles a passion inasmuch as the sense is potential with respect to its object; for it receives sensible impressions. So far then as understanding resembles sensation the intellect too will be impassible (taking passivity in the strict sense), yet will it show some likeness to what is passive, in its receptivity to intelligible ideas; for these it possesses only potentially, not actually. Thus, as sensitive life is to sensible objects, so is the intellect to intelligible objects, each being potential with respect to its object and able to receive that object.

677. Then at 'It is also necessary'¹ he proceeds to deduce the nature of the potential intellect.² First he shows that this intellect is not a bodily thing nor compounded of

bodily things; and then, at 'Hence it is a reasonable',³ that it has no bodily organ. As to the first point, we should note that there used to be two opinions about the intellect. Some — and this, as we have seen, was the view of Empedocles ⁴ — thought that intellect was a composition of all the principles of things, and that this explained its universal knowledge. On the other hand Anaxagoras thought it was simple and pure and detached from all bodily things. And therefore, precisely because the intellect, as he has just said, is not in act of understanding, but in potency only, and in potency to know everything, Aristotle argues that it cannot be compounded of bodily things, as Empedocles thought, but must be separate from such things, as Anaxagoras thought.

678. Now the reason why Anaxagoras thought this was that he regarded intellect as the principle that dominated and initiated all movement; which it could not be if it were either a composition of bodily things or identified with any one of such things; for in these cases it would be restricted to one course of action only. Hence Aristotle's observation that, in Anaxagoras' view, the intellect was detached 'so that it might command' and, commanding, initiate all movement.

679. But, since we are not concerned at present with the all-moving Mind, but with the mind by which the soul understands, we require a different middle term to prove that the intellect is unmixed with bodily things; and this we find in its universal knowledge. That is why Aristotle adds 'That it might know', as if to say: as Anaxagoras maintained that intellect was unmixed because it commands, so we have to maintain that it is unmixed because it knows.

680. The following argument may make this point clear. Anything that is in potency with respect to an object, and able to receive it into itself, is, as such, without that object; thus the pupil of the eye, being potential to colors and able to receive them, is itself colorless. But our intellect is so related to the objects it understands that it is in potency with respect to them, and capable of being affected by them (as sense is related to sensible objects). Therefore it must itself lack all those things which of its nature it understands. Since then it naturally understands all sensible and bodily things, it must be lacking in every bodily nature; just as the sense of sight, being able to know color, lacks all color. If sight itself had any particular color, this color would prevent it from seeing other colors, just as the tongue of a feverish man, being coated with bitter moisture, cannot taste anything sweet. In the same way then, if the intellect were restricted to any particular nature, this connatural restriction would prevent it from knowing other natures. Hence he says: 'What appeared inwardly would prevent and impede' (its knowledge of) 'what was without'; i.e. it would get in the way of the intellect, and veil it so to say, and prevent it from inspecting other things. He calls 'the inwardly appearing' whatever might be supposed to be intrinsic and co-natural to the intellect and which, so long as it 'appeared' therein would necessarily prevent the understanding of anything else; rather as we might say that the bitter moisture was an 'inwardly appearing' factor in a fevered tongue.

681. From this he concludes, not that in fact the nature of the intellect is 'not one', i.e. that it has no definite nature at all; but that its nature is simply to be open to all things; and that it is so inasmuch as it is capable of knowing, not (like sight or hearing) merely one particular class of sensible objects, nor even all sensible accidents and qualities (whether these be common or proper sense-objects) but quite generally the whole of sensible

nature. Therefore, just as the faculty of sight is by nature free from one class of sensible objects, so must the intellect be entirely free from all sensible natures.

682. He concludes further that what we call our intellect is not in act with respect to real beings until it actually understands. This is contrary to the early philosophers' principle that intellect must be compounded of all things if it can know all things. But if it knew all things, as containing them all in itself already, it would be an ever-actual intellect, and never merely in potency. In the same way he has remarked already of the senses,¹ that if they were intrinsically made up of the objects they perceive, their perceptions would not presuppose any exterior sensible objects.

683. And lest anyone should suppose this to be true of any and every intellect, that it is in potency to its objects before it knows them, he adds ² that he is speaking here of the intellect by which the soul understands and forms opinions. Thus he excludes from this context the Mind of God, which, far from being potential, is a certain actual understanding of all things, and of which Anaxagoras said that it could command all because it was perfectly unmixed.

684. Next, at 'Hence it is a reasonable',³ he shows that the intellect has no bodily organ; and then, at 'They spoke to the point', approves a saying of the early philosophers. First, then, he concludes from what has been said, that if the mind's universal capacity for knowledge implies its intrinsic distinction from all the corporeal natures that it knows, for the same reason it can be argued that the mind is not 'involved in the body', i.e. that it has no bodily organ, as the sensitive part of the soul has. For if the intellect had, like the sensitive part, a bodily organ, it would necessarily be just one particular sensible nature among many. Therefore he says 'some quality' etc., meaning that a nature of this kind would have some particular sensible quality such as actual heat or cold; for it is obvious that, if the soul acts through a bodily organ, the soul itself must correspond to that organ as being in potency to its act.

685. It makes no difference to the act of the potency whether it is the potency itself that has a particular sensible quality or the organ, since the act is not of the potency alone but of potency and organ together. In the same way sight would be impeded if it were the visual potency, not the pupil of the eye,⁴ that was colored. So he says that it comes to the same to maintain that intellect has no bodily organ and that it has no particular bodily nature; and concludes that the intellectual part of the soul, unlike the sensitive, has no bodily organ.

686. Next, where he says 'And they spoke to the point',⁵ he relates his view to an opinion of the early philosophers, saying that, granted intellect's lack of a bodily organ, we can see the point of the old saying that the soul is the 'place' of forms ¹ — meaning that it receives these into itself. Now this saying would be false if every part of the soul had its bodily organ, for then the forms would be received into the composition of soul and body, not into the soul alone; for it is not sight that receives visible forms, but the eye. It follows that the soul as a whole is not the 'place' of forms, but only that part of it which lacks a bodily organ, i.e. the intellect; and even this part does not, as such, possess them actually, but potentially only.

687. Then, at 'That the impassibility',² he shows how the intellect and the senses differ with respect to impassibility. He has already ³ observed that neither sensation nor

understanding is a passion in the precise sense of a state of being passively affected; whence he had inferred that the intellect was impassible. But, lest it be supposed that sense and intellect were impassible in the same degree, he now distinguishes them in this respect. Though the senses as such are not, strictly speaking, passively affected by their objects, they are indirectly so affected, inasmuch as the equilibrium of the sense-organ is disturbed by any excess in its object. But the same is not true of the intellect, since it has no organ; it is therefore neither directly nor indirectly passible.

688. This is what he means when he proceeds to say that the dissimilarity between sense and intellect in point of passibility appears 'from the organs and from sensation'. For a very strong sense-object can stun the faculty of sense. One can be deafened by great sounds, blinded by strong colors, made powerless to smell anything by over-powering odors; and this because the organ in each case is injured. But since the intellect has no organ that could be injured by an excess of its appropriate object, its activity is not, in fact, weakened by a great intelligibility in its object; indeed it is rather strengthened thereby; and the same would be true of the senses, if they could exist without bodily organs. All the same, an injury to an organ of the body may indirectly weaken the intellect, in so far as the latter's activity presupposes sensation. The cause, then, of the difference is that sensitivity acts in the body, but the intellect acts on its own.⁴

689. All this goes to show the falsity of the opinion that intellect is the same as imagination, or as anything else in our nature that depends on the body's constitution. On the other hand, this same text has been, for some, an occasion of falling into the error of regarding the intellectual power as quite separated from the body, as a substance that exists on its own.¹ Which is an utterly indefensible position.

690. For it is clear that the actually intelligent being is this particular man. Whoever denies this implies that he himself understands nothing; and therefore that one need pay no attention to what he says. But if he does understand anything he must do so in virtue of some principle in him of this particular activity of understanding; which is the intellectual power (as potential) to which the Philosopher refers when he says: 'I mean that mind by which the soul understands and forms opinions'. The potential intellect then is precisely that by which this particular man understands. Now that in virtue of which, as a principle of activity, an agent acts may certainly exist in separation from the agent; as e.g. a king and his bailiff have separate existence, though the latter acts only as moved by the king. But it is quite impossible for the agent to exist separately from that by which, formally and immediately, he is an agent; and this because action only proceeds from an agent in so far as the latter is in a state of actuality. It follows that the agent and the proper and immediate principle of his activity must exist together in one act; which could not be if they were separate beings. Hence the impossibility of a separation in being of an agent from its formal principle of activity.

691. With this truth in mind, those who maintained the opinion to which I refer tried to think out some way of so linking up and uniting the separated substance, which for them was the intellectual potency, with ourselves, as to identify its act of understanding with our own. They said then that the form of the potential intellect, that by which it is brought into act, was the intelligible idea; and that the subject possessed of this idea was a kind of phantasm produced by ourselves. In this way, they said, the potential intellect is linked with us through its form.

692. But this theory entirely fails to prove any continuity between the intellect and ourselves. For the intellectual power is only united with an intelligible object in the degree that it is in act; just as we have seen that the senses ¹ cannot unite with their appropriate objects so long as these remain in potency. Therefore the intelligible idea cannot be the form of the intellectual power until it is actually understood; and this cannot happen until it is disengaged from phantasms by abstraction. Hence, precisely in the degree that it is joined to the intellect it is removed from phantasms. Not in this way therefore could an intellectual power be united with us.

693. And obviously the upholder of this view was led astray by a fallacia accidentis. For his argument comes to this: phantasms are somehow united to intelligible ideas, and these to the potential intellect; and therefore the latter is united to the phantasms. But, as I say, it is clear that, in the degree that the intelligible idea is one with the intellectual power, it is abstracted from phantasms.

694. But even granted that between the intellectual power and ourselves there existed some such union as this view supposes, it would not in fact cause us to understand, but rather to be understood. If the eye contains a likeness of a colored wall, this does not cause the color to see, but, on the contrary, to be seen. Therefore if the intelligible idea in the intellect is a sort of likeness of our phantasms, it does not follow that we perceive anything intellectually, but rather that we — or more precisely our phantasms — are understood by that separated intellectual substance.

695. Many other criticisms might be urged, such as I have set out in more detail elsewhere.² Enough to note for the present that the theory in question is an implicit denial of the existence of thinking in the human individual.

696. Furthermore, it is also clearly contrary to the teaching of Aristotle. First, because he has explicitly said (at the beginning of the treatise) that the subject matter of his enquiry is a part of the soul, not any separated substance.

697. Moreover, he has set out to examine the intellect leaving aside the question whether it is a being distinct from the rest of the soul; so that even if it be not distinct in this way, that does not affect his argument.

698. Again, Aristotle calls the intellect that by which the soul understands.

All these indications show that he did not assert that the intellect was a separate substance.

699. Indeed it is astonishing how easily some have let themselves be deceived by his calling the intellect 'separate'; for the text itself makes it perfectly clear what he means, — namely that, unlike the senses, the intellect has no bodily organ. For the nobility of the human soul transcends the scope and limits of bodily matter. Hence it enjoys a certain activity in which bodily matter has no share; the potentiality to which activity is without a bodily organ; and in this sense only is it a 'separate' intellect.

429b 5-429b 22

BOOK III, CHAPTER IV, CONTINUED

INTELLECTUAL ABSTRACTION

BUT WHEN IT BECOMES ^1 PARTICULAR OBJECTS, AS in a man of science, the intellect is said to be in act. (This comes about as soon as such a one is able to operate of himself.) It is, then, in a way still in potency, but not in the way it was before it learned or discovered. And then, too, it is able to think itself. 700-704

Now, as dimension is one thing and the being of dimension another, and as water is one thing and the being water another, and so with many other things (but not all things, for in certain things 'flesh' is the same as 'being flesh')^2 accordingly it discriminates either by some other [faculty] or by the same faculty differently disposed. For flesh is not separable from matter; it is like the snub of a nose, one [thing] existing in the other. There is discerned therefore by the sensitive faculty what is hot, what is cold, and anything else of which the flesh is a certain ratio. But either by another and separate faculty, or as if it were bent back upon itself (whereas it was previously straight), does it perceive the being of flesh. 705-13

Again, in the abstract sphere the straight line is as the snub-nose; for it goes with the continuum. But its essence, if being [straight] is other than a straight line, is different. Let it be, for instance, Duality. Then [the mind] discerns either by another faculty or by the same differently disposed. In general, then, as things are separable from matter, so are intellectual operations. 714-19

ST. THOMAS'S COMMENTARY: LECTIO EIGHT

700. Having reached certain conclusions about the intellect as potential with respect to intelligible objects, the Philosopher now goes on to show how it is actualized. And first he shows that it is actualized intermittently; and then, at 'Now as dimension',¹ what is the precise object of its actualization.

He explains how the intellect is actualized thus. The intellectual soul is, we have said,² only in potency to its ideas at first. 'But when it becomes particular objects',³ i.e. when the mind reaches the degree of actual apprehension of intelligibles that is found in the knowledge habitually possessed by a man of science, then it can already be called an intellect in act; and that degree is reached as soon as one is capable of producing, on one's own initiative, the intellectual activity called understanding. For the actual possession of any form is coincident with the ability to act accordingly.

701. Yet though a mind is already, in a way, in act when it has intelligible notions in the manner of one who possesses a science habitually, none the less the mind then is still, in a way, in potency; though not in the same way as it was before it acquired the science, either by being taught it or by its own unaided efforts. Before it acquired the habit of a science — which is its first state of actuality ⁴ — it could not actualize itself at will, it needed to be brought into act by the mind of another; but once such a habit is acquired, the intellect has the power to bring itself into action at will.

702. What is said here disproves the un-Aristotelian position of Avicenna touching intelligible ideas. Avicenna maintained that ideas are not retained by the potential intellect, but exist in it only so long as it is actually understanding. Whence it follows that, for this intellect to come to the act of understanding anything, it must have recourse to a separated active intellect, the source of intelligible ideas in the intellectual potency.

703. But against this Aristotle is clearly saying that the manner in which the mind becomes actually possessed of ideas is that of one who, possessing a science habitually, is still in potency to a given act of understanding. Thus the mind actually understanding possesses its ideas in fullest actuality; and so long as it has the habit of a science, it possesses them in a manner half-way between mere potency and complete actuality.

704. And having asserted that, once the mind has become partly actual with respect to certain ideas hitherto potentially apprehended, it is capable of understanding, whereas simply regarded in itself it lacks the capacity, because this might lead one to suppose that even as in act the mind never thinks of itself, Aristotle adds that, once in act, the mind is able to think not only of other things, but also of itself.

705. Next at 'Now, as dimension is one',¹ Aristotle elucidates the object of the intellect. To understand him here we must recall the problem stated in Book VII of the *Metaphysics*,² namely whether the 'whatness' or quiddity or essence of a thing — whatever is signified by its definition — whether this is the same as the thing itself. And whilst Plato had separated the quiddities (called by him 'ideas' or 'species') of things from things in their singularity, Aristotle was concerned to show that quiddities are only accidentally distinct ³ from singular things. For example, a white man and his essence are distinct just in so far as the essence of man includes only what is specifically human, whereas the thing called one white man includes something else as well.

706. And the same is true of anything whose form exists in matter; there is something in it besides its specific principle. The specific nature is individualized through matter; hence the individualizing principles and individual accidents are not included in the essence as such. That is why there can be many individuals of the same specific nature — having this nature in common, whilst they differ in virtue of their individuating principles. Hence, in all such things, the thing and its essence are not quite identical. Socrates is not his humanity. But where the form does not exist in matter, where it exists simply in itself, there can be nothing except the essence; for then the form is the entire essence. And in such cases, of course, there cannot be a number of individuals sharing the same nature; nor can the individual and its nature be distinguished.

707. This also should be considered, that things existing concretely in Nature — physical things — are not alone in having their essences in matter; the same is also true of mathematical entities. For there are two kinds of matter: sensible matter, which is intrinsic to physical things and from which the mathematician abstracts; and intelligible matter, intrinsic to mathematical entities. For it is clear that, whereas quantity pertains to a substance immediately, sensible qualities, like white and black or heat and cold, presuppose quantity. Now given two things of which one is prior to the other, if you remove the second, the first remains; hence if only its sensible qualities are removed from a substance by a mental abstraction, continuous quantity still remains, in the mind, after the abstraction.

708. For there are some forms which can only exist in a matter which is possessed of certain definite sensible qualities; and such are the forms of physical things; and such things therefore always involve sensible matter. But there are other forms which do not call for matter possessed of definite sensible qualities, yet do require matter existing as quantity. These are the so-called mathematical objects such as triangles, squares and the

like; they are abstracted from sensible matter, but not from intelligible matter; for the mind retains the notion of a quantitative continuum after abstracting from sensible quality. Clearly then, both physical and mathematical objects have their forms in matter, and in both there is a difference between a thing and its essence; which is why in both cases many individual things are found to share the same nature: e.g. men and triangles.

709. If these points are understood, the text of Aristotle should present no difficulties. For he says 'dimension ¹ and the being of dimension' differ, meaning a dimension and its essence — for by 'the being of dimension' he means its essence. So also 'water' and its 'being' are distinct; and similarly in the case of 'many other things'; i.e. in all physical and mathematical objects. Hence his choice of these two examples: for dimension is a mathematical object and water a physical one.

710. But this distinction is not verified in 'all things'; for in perfectly immaterial substances the thing is identical with its essence. And as such substances are beyond the reach of the human mind, Aristotle could not assign proper names to them, as he could to physical and mathematical objects; so he describes them in terms drawn from physical objects. That is why he says that 'in certain things flesh' and 'its being' are identical.¹ He does not mean this literally, else he would not have said 'in certain things', but would have absolutely identified flesh and its being. He means that 'in certain things', i.e. immaterial substances, the two factors which we distinguish as the concrete thing and what is predicated of it — for instance flesh and its being — are identical.

711. And since diversity in objects known implies diversity in the knowing faculties, he concludes by saying that either the soul knows a thing with one faculty and its essence with another, or both with the same faculty functioning in different ways. For it is obvious that flesh can only exist in matter; its form being in a certain definite and particular sensible matter. The being, too, which has flesh is a definite sensible thing, e.g. a nose. Now this sensitive nature ² the soul knows through the senses; that is why he adds ³ that it is by the sense-faculty that the soul discerns the hot and the cold and so forth, of which flesh is a certain 'ratio', i.e. proportion. For the form of flesh requires a certain definite proportion of heat and cold and so forth.

712. But the 'being of flesh', i.e. its essence, must be 'discerned' by some other faculty. But the functioning of two distinct 'faculties' takes place in two ways. In one way flesh and its essence can be discerned by powers in the soul which are completely distinct; the essence discerned by the intellect, the flesh by the senses; and this happens when we know the individual in itself and the specific nature in itself. But in another way the flesh and its essence may be discerned, not by two distinct faculties, but by one faculty knowing in two distinct ways — knowing in one way flesh, in another the essence of flesh; and this happens when the knowing soul correlates the universal and the individual. For, just as it would be impossible for us (as we have seen)¹ to distinguish sweetness from whiteness if we had not a common sense faculty which knew both at once, so also we could not make any comparison between the universal and the individual if we had not a faculty which perceived both at once. The intellect therefore knows both at once, but in different ways.

713. It knows the specific nature or essence of an object by going out directly to that object; but it knows the individual thing indirectly or reflexively, by a return to the

phantasms from which it abstracted what is intelligible. This Aristotle expresses ² by saying that the intellectual soul either knows flesh sensitively and discerns the 'being of flesh' with 'another' and 'separate' potency, — i.e. other than sensitivity, in the sense that intellect is a power distinct from the senses; or it knows flesh and the 'being of flesh' by one and the same intellectual power functioning diversely; in so far as it can 'bend back', so to say, 'upon itself'. As 'stretched out straight', and apprehending directly, it 'discerns' the 'being' or essence of flesh; but by reflection it knows the flesh itself.

714. Next, at 'Again, in the abstract sphere',³ he applies what he had said of physical objects to mathematical objects, saying that 'in the abstract sphere', i.e. in mathematics, where we abstract from sensible matter, the straight line is like the snub-nosed in the sphere of sensible matter. For line is a mathematical object, as a snub-nose is a physical one; and line essentially involves a continuum, as what is snub-nosed a nose. But the continuum is intelligible matter, as what is snub-nosed is sensible matter. Therefore in mathematics also the thing and its essence, e.g. the straight line and its straightness, are different; hence too, even in mathematics, things and essences must be objects of different kinds of knowing.

715. As an instance of this let us suppose for a moment, with Plato, that the essence of straight line is duality (for Plato identified the essences of mathematical objects with numbers, so that a point was unity, a straight line duality, and so on). The soul then must know mathematical objects and their essences in different ways. Hence, just as it can be shown, in the case of physical objects, that the intellect knowing their essences is other than the senses which know them in their individuality, so too, in the case of mathematics, it can be shown that what knows the essences, i.e. the intellect, is distinct from what apprehends mathematical objects themselves, i.e. the imagination.

716. And lest it be said that the mind works in the same way in mathematics and in natural science, he adds that the relation of things to the intellect corresponds to their separability from matter. What is separate in being from sensible matter can be discerned only by the intellect. What is not separate from sensible matter in being, but only in thought, can be perceived in abstraction from sensible matter, but not from intelligible matter. Physical objects, however, though they are intellectually discerned in abstraction from individual matter, cannot be completely abstracted from sensible matter; for 'man' is understood as including flesh and bones; though in abstraction from this flesh and these bones. But the singular individual is not directly known by the intellect, but by the senses or imagination.

717. From this text of Aristotle one can go on to show that the intellect's proper object ¹ is indeed the essence of things; but not the essence by itself, in separation from things, as the Platonists thought. Hence this 'proper object' of our intellect is not, as the Platonists held, something existing outside sensible things; it is something intrinsic to sensible things; and this, even though the mode in which essences are grasped by the mind differs from their mode of existence in sensible things; for the mind discerns them apart from the individuating conditions which belong to them in the order of sensible reality. Nor need this involve the mind in any falsehood; for there is no reason why, of two conjoined things, it should not discern one without discerning the other; just as sight perceives color without perceiving odor, though not without perceiving color's necessary ground which is spatial magnitude. In like manner, the intellect can perceive a form apart from its

individuating principles, though not apart from the matter required by the nature of the form in question; thus it cannot understand the snub-nosed without thinking of nose, but it can understand a curve without thinking of nose. And it was just because the Platonists failed to draw this distinction that they thought that mathematical objects and the essences of things were as separate from matter in reality as they are in the mind.

718. Furthermore, it is clear that the intelligible ideas by which the potential intellect is actualized are not in themselves the intellect's object: for they are not that which, but that by which it understands. For, as with sight the image in the eye is not what is seen, but what gives rise to the act of sight (for what is seen is color which exists in an exterior body), so also what the intellect understands is the essence existing in things; it is not its own intelligible idea, except in so far as the intellect reflects upon itself. Because, obviously, it is what the mind understands that makes up the subject-matter of the sciences; and all these, apart from rational science,¹ have realities for their subject-matter, not ideas. Clearly then, the intellect's object is not the intelligible idea, but the essence of intelligible realities.

719. From which we can infer the futility of an argument used by some to prove that all men have only one potential intellect ² in common. They argue from the fact that all men can understand one and the same object; and say that if there were really many human intellects they would necessarily have many intelligible ideas. But these intelligible ideas are not precisely what the mind understands; they are only the latter's likeness present in the soul; hence it is quite possible for many intellects to possess likenesses of one and the same object, so that one thing is understood by all. Besides, the separated substances must know the essences of the physical things which we know; and clearly their intellects are distinct. Hence, if the above argument were valid, its conclusion — that all men have only one intellect — would still involve a difficulty; for one cannot reduce all intellects to one. [...]

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BOOK III, CHAPTER V

THE AGENT INTELLECT

Now since in all nature there is a factor that is as matter in the genus, and is potentially all that is in the genus, and something else which is as cause and agent as making everything in it (thus art is related to its material): so there must be these differences in the soul. There is that intellect, which is such as being able to become everything; and there is that which acts upon everything, as a sort of state, like light; for light too, in a way, makes potential colors actual. 728-31

And this is intellect separable, uncompounded and incapable of being acted on, a thing essentially in act. For the agent is always more excellent than the recipient, and the principle than its material. 732-9

Knowledge in act is the same as the thing itself. But what is potential has temporal priority in the individual; yet this is not true universally, even with respect to time. Mind does not know at one time and not know at another time. 740-1

Only separated, however, is it what it really is. And this alone is immortal and perpetual. 742-3

It does not remember, because it is impassible; the passive intellect is corruptible, and the soul understands nothing apart from this latter. 744-5

ST. THOMAS'S COMMENTARY: LECTIO TEN

728. Having examined the potential intellect, the Philosopher now turns his attention to the agent intellect.¹ He first shows by argument and illustration that there is such a thing as the agent intellect; and then, at 'And this is intellect',² he explains its nature. The argument he uses is this. In any nature which alternates between potency and actuality we must posit (1) a factor akin to the matter which, in any given class of things, is potentially all the particulars included in the class; and (2) another factor which operates as an active and productive cause, like art with respect to its material. Since then the intellectual part of the soul alternates between potency and act, it must include these two distinct principles: first, a potentiality within which all intelligible concepts can be actualized (this is the potential intellect already discussed);³ and then, also, a principle whose function it is to actualize those concepts. And this latter is the agent intellect, — being 'a sort of state'.⁴

729. This last phrase has led some to suppose that the agent intellect is one with the 'intellect' which is a habitual apprehension of first principles. But it is not so; for the latter 'intellect' presupposes the actual presence in the mind of certain intelligible and understood objects, which are the terms in understanding which we apprehend the truth of first principles. So the view in question would imply that the agent intellect was not, as Aristotle here maintains, the primary source, for us, of the actual intelligibility of anything. Therefore I hold that the term 'state' is used here in the sense in which Aristotle often calls any form or nature a 'state', to distinguish it from a privation or a potency. In this case the agent intellect is called a state to distinguish it from the intellect in potency.

730. So he calls it a state, and compares it to light which 'in a way' brings colors from potency to act; — 'in a way' because, as we have seen, color is visible of itself;¹ all that light does is to actualize a transparent medium which can then be modified by color so that color is seen. The agent intellect, on the other hand, actualizes the intelligible notions themselves, abstracting them from matter, i.e. bringing them from potential to actual intelligibility.²

731. The reason why Aristotle came to postulate an agent intellect was his rejection of Plato's theory that the essences of sensible things existed apart from matter, in a state of actual intelligibility. For Plato there was clearly no need to posit an agent intellect. But Aristotle, who regarded the essences of sensible things as existing in matter with only a potential intelligibility, had to invoke some abstractive principle in the mind itself to render these essences actually intelligible.

732. Next, at 'And this etc.',³ he states four qualities or conditions of the agent intellect: first, its separation from matter; second, its impassibility; third, its purity,⁴ by which he means that it is neither made up of bodily natures nor conjoined with a bodily organ. Now these three qualities are also found in the potential intellect; but the fourth is proper

to the agent intellect, and consists in its being essentially in act; whereas the potential intellect is essentially potential and comes to act only by receiving an intelligible object.

733. To demonstrate these qualities he argues as follows. What acts is nobler than what is acted on, an active principle is nobler than its material. Now the agent intellect, as we have said,⁵ is to the potential intellect as an active principle to its material; therefore it is the nobler of the two. If, then, the potential intellect be (as has been shown)⁶ free from matter and impassible and pure, a fortiori the agent intellect. Consequently the agent intellect is also essentially actual, for only in virtue of its actuality is an active principle nobler than a passive one.

734. Now what is said here has led some to conceive of the agent intellect as a separated substance, subsisting apart from the potential intellect. But this does not seem to be true; for human nature would be a deficient nature if it lacked any one of the principles that it needs for its naturally appropriate activity of understanding; and this requires both the potential and the agent intellects. Hence, complete human nature requires that both of these be intrinsic to man. Moreover, just as the potential intellect's function of receiving intelligible objects is attributed to the individual man as its subject, so also is the work of the agent intellect, the abstracting of such objects from matter. And this is only possible in so far as the formal principle of the latter activity is one in being with the individual man.

735. Nor is it enough to say that the intelligible notions formed by the agent intellect subsist somehow in phantasms, which are certainly intrinsic to us; for as we have already¹ observed in treating of the potential intellect, objects only become actually intelligible when abstracted from phantasms; so that, merely by way of the phantasms, we cannot attribute the work of the agent intellect to ourselves. Besides, the agent intellect is to ideas in act in the mind as art is to the ideas it works by; and obviously the things on which art impresses such ideas do not themselves produce the art; hence, even granted that we were the subjects of ideas made actually intelligible in us, it would not follow that it is we who produce them by means of an agent intellect in ourselves.

736. Nor does the above theory agree with Aristotle who expressly states that these two distinct powers, the agent and the potential intellects, are in the soul; thus making it quite clear that he takes them to be parts or potencies of the soul, not distinct substances.

737. The chief difficulty arises from the fact that, while the potential intellect is in potency to intelligible objects, the agent intellect stands to the latter as a being already in act. And it would seem impossible that one and the same thing should be at once in act and in potency to the same object; and therefore that these two intellects should belong to the one substance of the soul.

738. But there is really no difficulty in this if we understand aright how the potential intellect is potential with respect to intelligible objects, and how the latter are potential with respect to the agent intellect. In the former case the potentiality is that of the indefinite to the definite; for the potential intellect is not, as such, endowed with any definite and particular sensible thing's nature. Yet only definite particular natures are, as such, intelligible — hence Aristotle's earlier comparison¹ of the intellectual power's relation to intelligible objects with that of a sheet of paper to particular definite pictures. And from this point of view the agent intellect is not in act.

739. For if the agent intellect as such included the definite forms of all intelligible objects, the potential intellect would not depend upon phantasms; it would be actualized simply and solely by the agent intellect; and the latter's relation to intelligible objects would not be that of a maker to something made, as the Philosopher here says; for it would simply be identical with them. What makes it therefore in act with respect to intelligible objects is the fact that it is an active immaterial force able to assimilate other things to itself, i.e. to immaterialize them. In this way it renders the potentially intelligible actually so (like light which, without containing particular colors, actually brings colors into act). And because this active force is a certain participation in the intellectual light of separated substances, the Philosopher compares it to a state and to light; which would not be an appropriate way of describing it if it were itself a separate substance.

740. Next, at 'Knowledge in act',² he states his conclusions concerning intellect as in act;³ and first he states its properties; and then, at 'Only separated',⁴ how the intellectual part of the soul in general differs from the rest of the soul. Regarding the former point, he states three properties of intellect in act. First, its actual knowledge is identical with the thing known; which is not true of intellect as potential. Secondly, though in one and the same thing potential knowledge is prior in time to actual knowledge, yet, speaking universally, potential knowledge is not prior either in nature or in time. In Book IX of the *Metaphysics*⁵ Aristotle had said that act is by nature prior to potency, but not in time in one and the same thing; for a thing is first in potency and afterwards in act. But universally speaking act takes priority even in time; because no potency would ever be actualized unless something were already in act. So, even in the case of potential knowledge, no one ever comes to know anything actually, whether through his own effort or another's teaching,¹ except in virtue of some pre-existing actual knowledge, as it is said in Book I of the *Posterior Analytics*.²

741. The third property of intellect as in act, differentiating it from the potential intellect and from intellect in habitual possession of knowledge, is that it is always in act; for it simply is the act of understanding. In the other cases intellect is sometimes in act and sometimes in potency.

742. Next, at 'Only separated',³ he states the properties of the intellect as a whole; first stating the truth, and then refuting an objection. He says, then, that only the mind separated from matter is that which really is mind; and he speaks here, not of the agent or passive intellect in isolation, but of both together, since both have been described as separated from matter. And the whole intellect is so described because it operates without a bodily organ.

743. And in line with what he said at the beginning ⁴ of this book, that the soul might be separable from the body if any of its activities were proper to itself, he now concludes that the soul's intellectual part alone is immortal and perpetual. This is what he has said in Book II, namely that this 'kind' of soul was separable from others as the perpetual from the mortal,⁵ — perpetual in the sense that it survives for ever, not in the sense that it always has existed; for as he shows in Book XII of the *Metaphysics*,⁶ forms cannot exist before their matter. The soul, then (not all of it, but only its intellectual part) will survive its matter.

744. Next, at 'It does not remember',⁷ he meets an objection. For we might suppose that knowledge would remain unchanged in the intellectual part of the soul which survives. But already in Book I he has disallowed this, where ⁸ he observed that the act of the intellect must cease when something else dies; and that after death the soul remembers and loves no more.

745. So now he adds that what we have known in life is not recalled after death; because 'it is impassible', i.e. that part of the intellectual soul of which he speaks; which, therefore, is unaffected by passions such as love and hatred and reminiscence and so forth, which all depend on modifications of the body. For the 'passive intellect' — a part of the soul which depends on the aforesaid passions — is certainly mortal; for it belongs to our sensitive nature. Nevertheless, it is called 'intellect' and 'rational' because it has a certain share in reason: it obeys and is governed by reason (see Book I of the Ethics).¹ And without the co-operation of this embodied part of the soul there is no understanding anything; for the intellect always requires phantasms, as we shall see.² Hence, after the body's death the soul no longer knows anything in the same way as before. But how it does know anything then is not part of our present enquiry.

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BOOK III, CHAPTER VI

INTELLECTUAL OPERATIONS

SIMPLE AND COMPLEX 'INTELLIGIBLES'

INTELLIGENCE OF WHAT IS NOT COMPLEX IS IN A sphere where there can be no deception. But in matters where there is false or true, there is also some composition of things understood as of many brought to a unity. As Empedocles said, 'The heads of many grew with no neck',¹ [but] concord afterwards brought them to unity; so in the same way these disjunct terms are combined, like 'the diagonal' and 'the incommensurate'. If the composition be of things done, or of future events, time also is taken into the reckoning, as one of the component elements. Falsity is always in a combination, as for instance when one brings together 'white' and a not-white object, or 'not-white' with a white one. All these statements can also be divisions. It is not only, then, false or true that Cleon is white, but that this fact was true or will be true. It is the intellect which imposes a unity in each case. 746-51

As the indivisible is twofold, the actual and the potential, there is nothing to prevent the intellect from apprehending an indivisible when it apprehends an extended length. For this length is actually undivided, and is [understood] in an undivided space of time: for time is divided or undivided like the length. It is not right to say that [the mind] understands both by halving both;¹ There is no half, save potentially, unless an actual division has been made. However, in apprehending separately each of the halves, it divides the time also, which is then [divided] like the length. But if this is considered as a whole made up of two halves, then there is something corresponding to each in the time also. 752-4

But whatever is not indivisible quantitatively, but specifically, the mind apprehends both in an instant of time and by a single act of the soul; incidentally, however, [it apprehends division] not in so far as what the mind understands and the time in

which it understands are divisible, but as they are indivisible;^2 for there is in these something indivisible, but perhaps not separable, which gives unity to time and extension; and this holds of all that is continuous, whether by time or extension. 755-6

A point, and anything separated out and thus incapable of further analysis, is shown as a privation. A similar principle holds in other matters, as in the way we know air or blackness. For in some way the knowledge is by contrariety; but the knowing faculty must be in potency, and one [of the contraries] be in it. But if there is some cause that includes no contrary, it is self-knowing, and in act, and separate. 757-9

Now every utterance, e.g. an affirmation, is of something, about some subject; and is always either true or false. Yet not all understanding is thus; understanding is true about what anything is, in the sense of the quiddity of it; not as to every fact about a subject, but, as sight is always true about its proper object, yet it is not always true about a white thing being a man or not. So it stands with whatever is immaterial. 760-3

CHAPTER VII

Knowledge in act is identical with the thing. But what is potential is prior in time in the individual; though universally it is not prior, even in time; for all that comes into existence comes from an actual existent. 764

ST. THOMAS'S COMMENTARY: LECTIO ELEVEN

746. Having come to conclusions about the intellect the Philosopher now examines its activity; and this in two parts; first distinguishing two such activities, and then reaching conclusions about each of these. First, then, he says that the intellect, by one of its activities, understands things simply; understanding, for instance, man or ox, or any such thing, simply in itself. And this operation involves no falsehood, both because objects considered simply in themselves are neither true nor false, and also because, as we shall see later on,¹ the mind is infallible with respect to what things are in themselves.

747. On the other hand, where truth and falsehood are found in the intelligible objects themselves, there must have been already a certain composition of these objects, i.e. of the things understood, joining several such objects together. He gives as an example the theory of Empedocles that all things originated by chance, not design; by merely following a process of division and conjunction through strife and love respectively. Thus Empedocles said that in the beginning many heads 'grew' without necks; and similarly that many other parts of animals grew up in separation from other parts; and he says 'grew' as though these things sprang from the elements, not from the seed of animals, as grass grows from the earth. Only afterwards did these parts, thus differentiated, come together in harmony and make up the single animal with its various parts — head, hands, feet and so on. And if all the parts necessary for the animal's existence were present it could go on living and would beget its own kind; but not if any were lacking. So then, just as love (according to Empedocles), brought together the different parts of animals and formed of them one animal, so too the intellect is able to combine many simple and separate objects and make one intelligible object of them. And such combinations are sometimes true and sometimes false.

748. They are true when they put together what are combined and united in reality, e.g. the diagonal and incommensurability — for the diagonal of a square is incommensurable with its sides. And they are false when they put together what are not combined in reality, saying, e.g. that the diagonal of a square is commensurable with its sides.

749. Now commensurability and the diagonal are sometimes understood separately, making two distinct intelligible objects; but when combined they make one object which the mind understands all together. But again, since the objects so combined are sometimes things past or future, not present, he adds that when the mind combines things 'done' — i.e. past — or things to come, it should include the notion of time past or future; and in this way its combination will refer to past or future.

750. And he proves this by saying that combinations concerning past or future may be false, and that the falsehood is always in the combination itself. Again, there is falsehood if the not-white is combined with what is white, as when swans are said to be not white; or if white is combined with the not-white, as when crows are said to be white. And because all that can be affirmed can also be denied, he adds that all these combinations might also have been divisions.

751. For the mind can always separate things, whether in the present, or past or future; and it can do this both truly and falsely. Clearly then, since combinations can be made with reference to time past and future as well as present, and since truth and falsehood are found precisely in combinations and separations (or divisions), it follows that not only are propositions about the present true or false — e.g. that Cleon is white — but also propositions about the past or future — e.g. that Cleon was or shall be white. Since, however, the combination that makes a proposition is a work of reason and understanding, not of nature, he subjoins that the agent of such propositions, composed of intelligible objects, is the mind. And since it is in combinations that truth and falsehood are found, he can say, in Book VI of the *Metaphysics*,¹ that truth and falsehood are not in things but in the mind.

752. Next, at 'As the indivisible is twofold',² he comes to conclusions on both the aforesaid intellectual activities: (1) on the understanding of objects simply in themselves; (2) at 'Now every utterance',³ on the intellect's combinations and divisions; after which (3) he states something common to both. Section (1) divides into three parts according to three ways of considering indivisibility — that is to say, unity which consists in indivision.

First of all, a thing may be one by continuity;⁴ hence the continuum is called an indivisible because it is actually undivided, though it is potentially divisible. So he says that, since anything may be divisible either potentially or actually, there is nothing to prevent the mind thinking of a continuum or length as indivisible actually. And, so doing, its thought will also occur in an undivided time.

753. This is against the view of Plato,⁵ that the understanding of things in space involved a sort of continuous movement. In fact spatial things can be understood in two ways: either as potentially divisible — and thus the mind considers one section of a line after another, and so understands the whole in a period of time; or as actually indivisible — and thus the whole line is considered as a unity made up of parts and understood

simultaneously. He adds therefore that, in the act of understanding, either both time and length are divided, or both are not divided.

754. Consequently it cannot be said that the understanding involves dividing both by half, i.e. that half a line is understood in half the given time it takes to understand a whole one. This would be the case if the line were actually divided; but a line, as such, is only potentially divisible. If each of its halves, however, is understood separately, then the whole is actually divided mentally; and the time is divided also. But if the line is understood as a unity made up of two parts, the time also will be undivided or instantaneous — the instant being that which persists in every part of time. And if the mind's consideration is prolonged in time, the instants will not be separated with respect to distinct parts of the line understood one after another; but the whole line will be understood at every instant.

755. Next, at 'But whatever',¹ he mentions another kind of unity, namely that which comes of a thing being one in kind, though made up of discontinuous parts, e.g. the unity of a man, or a house, or even of an army. This is a specific, not a quantitative indivision; and the soul, he says, understands it by what is undivided in the soul and in an indivisible point of time — not, as Plato thought, by anything quantitative in the intellect. And though division may be contained in such unities, the divided parts are not understood — so far as the object and time of the understanding are concerned — as divided, but as united; for even though there be an actual division into parts, the species itself, as such, is indivisible; and this it is that is indivisibly understood. But if the parts are understood separately — e.g. the flesh and bones and so forth — the whole is not understood in an undivided time.

756. Then he points out wherein this second kind of unity seems to resemble the former kind. For as the species is something indivisible unifying the parts of a whole, so perhaps there may be something indivisible in any period of time or spatial length, — the point perhaps or the instant, or perhaps the species itself of length and of time. But there is this difference that, while the indivisible in the continuum is one and the same in every continuum, whether temporal or spatial, the unity of species differs from one thing to another; for some things are made up of homogeneous and some of heterogeneous parts.

757. Then at 'A point etc.',² he goes on to show how the third sort of indivisibility, i.e. whatever seems to be entirely one, such as a point or unit, is understood. A point, he says, is a sort of sign of division between sections of a line, as an instant between periods of time; and all such — being, like the point, both actually and potentially indivisible, — are 'shown' to the mind 'as privation', i.e. as privations of the divisible continuum.

758. The reason being that our mind has to start from sense-data. Sensibles therefore are the first things intellectually apprehended; and these all have some magnitude; hence the point and the unit can be only negatively defined. For the same reason whatever transcends the sensibles which we apprehend is known by us only negatively. Of 'separated' substances we only know that they are immaterial and incorporeal and so forth.

759. It is the same ¹ with things known by opposition, such as evil or black, which are privations of their opposites; for of two contraries one is always a lack or privation of the other. So he adds that the mind somehow knows each of these by its contrary: evil by

good and black by white. Now if our mind thus knows one contrary by means of another, it must do so by moving from potency into act, and also by receiving into itself the likeness of one contrary, e.g. of white, and only after and in virtue of this, the likeness of the other, e.g. of black. But if there exists a mind that does not have to move from one contrary to another, it must have itself for its primary and immediate object; and it must know all other things in knowing itself, and be always in act and entirely immaterial — even in its being; and such is the Divine Mind according to the teaching of Book XII of the *Metaphysics*.²

760. Then at 'Now every utterance',³ he states a conclusion about the mind's second activity of combining and distinguishing. He says that whenever a statement is made about anything — as when a mind affirms anything — the statement must be either true or false. Understanding as such, however, need not be true or false; its proper object is a simple one, and therefore, as bearing on this object, the act of understanding is neither true nor false. For truth and falsehood consist in a certain adequation or comparison of one thing to another, as when the mind combines or distinguishes; but not in the intelligible object taken by itself.

761. Yet though this latter object as such is neither true nor false, the mind understanding it is true in so far as it is conformed to a reality understood. So he adds that just so far as the mind bears on an essence,⁴ i.e. understands what anything is, it is always true; but not just in so far as it relates one thing to another.

762. The reason for this is that, as he says, essence ⁵ is what the intellect first knows; hence, just as sight is infallible with respect to its proper object, so is the intellect with respect to essence. It cannot, for instance, be mistaken when it simply knows what man is; on the other hand, just as sight can be deceived in respect of what is joined with its proper object, e.g. in discerning that some white object is a man, so too the intellect sometimes goes astray in relating one object to another. But the totally immaterial substances understand in a manner corresponding to our human apprehension of essences; so that they are infallible.

763. But note that even in knowing essences deception can occur indirectly, in two ways: (a) inasmuch as one thing's definition becomes false when applied to another thing; e.g. the definition of a circle applied to a triangle; and (b) inasmuch as the parts of a definition do not agree together, in which case the definition is simply false; e.g. if one were to include 'lacking sense-perception' in one's definition of 'animal'. Whence it follows that deception absolutely cannot occur where the definition involves no combining of parts; in this case one either understands truly or not at all (see Book IX of the *Metaphysics*).¹

764. Finally, at 'Knowledge in act', he repeats what he has said of intellect in act, that actual knowledge is one with its actual object; and that in one and the same thing potential knowledge precedes actual knowledge in time; but that this is not true universally; for all actualities derive from one Actual Being, as was explained above.²

431a 4-431b 19

BOOK III, CHAPTER VII, CONTINUED

SENSE AND INTELLECT COMPARED

THE PRACTICAL INTELLECT

ABSTRACTION AGAIN

AND IT SEEMS THAT THE SENSE-OBJECT [SIMPLY] brings the sense-faculty from a state of potency to one of act; for [the latter] is not affected or altered. Hence it is a specifically distinct kind of movement. For movement is the actuality of the incomplete; whereas in its plain meaning act is different, as being of the thing completed. 765-6

Sensation therefore is like mere uttering and understanding; but, given a pleasant or painful object, the soul pursues or avoids with, so to say, affirmation or negation. To be 'pleased' or to feel pain is to act in the sensitive mean in relation to the good or the bad as such; and pursuit or avoidance are this operation in act. And the faculties of desire and avoidance are not distinct, — nor distinct from the sensitive faculty; though in essence they differ. 767-9

Imaginative phantasms are to the intellective soul as sense-objects. But when it affirms or denies good or evil it pursues or avoids. Hence the soul never understands apart from phantasms. 770-2

This is comparable to the way that air affects the pupil with such and such a quality, and this in turn affects another part with the same quality: and the hearing operates likewise. The ultimate is one, a single common mean whose essence, however, is various. With what it discerns how the sweet differs from the hot has been stated already and must be reaffirmed here.

For it is a unity in the sense of a terminus; and this unity — according to analogy and number — is related to distinct objects as they to one another. (What difference indeed does it make whether the comparison be of qualities not homogeneous, or of contraries, like black and white?) Thus, as A (white) is to B (black) so is C to D; hence therefore, also, alternating the proportions. If then C and D pertain to one unifying principle,¹ they are to each other as A and B: identical though distinct in essence; so too is the aforesaid [principle].² The same relation holds if A be the sweet and B the white. 773-6

The intellectual faculty therefore understands forms in phantasms. And as in these [forms] what is to be pursued by it, or avoided, is marked out for it, so too when these are in the imagination apart from sensation, is it moved. [For instance] when one sees something fearful [e.g. fire,] seeing the fire move one knows in general that someone is fighting.³ Sometimes, however, it is by means of the phantasms or concepts in the soul that one calculates as if seeing, and that one deliberates on future or present matters;⁴ and when one has said that the pleasing or the disagreeable is present, then one pursues or avoids. 777-8

And generally in practical affairs ¹ and apart from action, true and false are in the same category, whether good or evil. But they differ in being absolute and relative. 779-80

The mind understands by abstraction, so called, as one might understand a snub-nose: as snub-nose, not in separation; but as curved, then, if the understanding be actual, the mind thinks of the curve apart from the flesh in which it exists. Thus,

understanding mathematical objects, the mind understands things not separated as separated. And in general, the mind in the act of understanding is the thing itself.
781-4

Whether it is possible for a mind that is not itself separated from extension to understand anything separated or no, is to be considered later. 785-6

ST. THOMAS'S COMMENTARY: LECTIO TWELVE

765. Here ¹ the Philosopher turns to consider the intellect as compared with the senses; first explaining the kind of movement that sensation involves; and secondly, ² showing how this movement resembles that of the intellect. On the former point he observes that the sense-object appears to play an active part in sensation, in so far as sensitivity as a whole is, to start with, in potency. For the sense-object and the sense-faculty are not mutually exclusive things, as though, when one acted on the other it had to transform and alter the latter by destroying something within it. In fact, all that the object does to the faculty is to actualize it; so he adds that sensitivity is not passive to the change-producing activity of the sense-object in the ordinary sense of the terms 'passivity' and 'change', which generally connote the substitution of one of two mutually exclusive qualities for the other.

766. Since, as he shows in the Physics, ³ changes of bodies are of this latter kind, it is clear that if we call sensation a change we mean a different sort of change. Movement from one mutually exclusive quality to another is the actuality of a thing in potency; for while the thing is losing one quality, and so long as it still has not the other, its movement is still incomplete and it is in potency. And because the potential as such is imperfect, this kind of movement is an actuality of the imperfect; ⁴ whereas the kind we are concerned with here is an actuality of what is perfect, ⁵ — the response of a sense-faculty already actualized by its object. Only the senses in act can have sensations. So their movement is quite different from physical movement. It is this movement also which, together with understanding and willing, is properly called an 'operation' ¹ and this also is what Plato referred to when he said that the soul moves itself through knowing and loving itself.

767. Next, at 'Sensation therefore', ² he likens the intellect's movement to that of the senses; — first showing how the senses move, and then, ³ at 'Imaginative phantasms', how a similar movement takes place in the intellect. As regards the former point he says that, since the sensible object actualizes our sensitivity without any accompanying passion (properly so called) or alteration, and the like also happens in intellection, as we have already seen, ⁴ therefore sensation resembles the act of the intellect — that is to say, mere sensation, with its sensuous apprehension and judgment, resembles mere intellection, with its intellectual apprehension and judgement. ⁵ Pure sensuous apprehension and discernment resemble intellectual understanding and discernment. But when the senses affirm (so to say) pleasure or pain in their act of perceiving, then appetite comes into play, i.e. a desire or avoidance of the object perceived. And note the phrase 'so to say'; for properly speaking affirmation and denial are acts of the intellect; ⁶ but something like them occurs when pleasure or pain is experienced sensuously.

768. And to show what pleasure and pain are, he observes further that the act of perceiving pleasure and pain takes place in the 'sensitive mean'; that is to say, it is the act of a certain midway faculty of sense — so called because the common sense is a sort of

medium between the particular senses, like the centre of a circle in relation to lines drawn from the circumference. But not every act of the sensitive part is a sense of pleasure or pain. This perception relates precisely to the good and the bad as such. For the good of the senses — i.e. what suits them — gives pleasure; while what is bad, i.e. repugnant and harmful to them, causes pain. And pain and pleasure are followed, respectively, by avoidance and appetite (or desire); and these are a sort of activity.

769. Thus the movement from sense-object to sense passes through three stages, as it were. There is first an awareness of the object as being in harmony or out of harmony with the sense: then a feeling of pleasure or pain; and then desire or avoidance. And although desiring, avoiding and mere sensing are different acts, still they are all acts of identically the same subject, though they can be distinguished in thought. This is what he means by adding that the 'desiring and avoiding' — i.e. that part of the soul which desires or avoids, is not divided in being nor distinct from the sensitivity; although in 'essence' they 'differ', i.e. are represented by different concepts. He says this against Plato in particular, who maintained that desire and sensation had distinct organs in different parts of the body.

770. Next, at 'Imaginative phantasms',¹ he compares the mind's movement to the process of sense-knowledge as he has described it. And he does two things here: he shows how the mind is related (a) to sense-objects, and (b) at 'The mind understands by abstraction',² to objects beyond the range of sense. (a) divides into (i) an explanation of the way the mind is related to sense-objects in practical activity; and (ii) at 'And generally in practical affairs',³ a comparison of the practical and speculative intellects. And with regard to the former point, he first states and then, at 'This is comparable to the way',⁴ illustrates the resemblance between the mind's activity and that of the senses.

First, then, he observes ⁵ that phantasms are to the intellectual part of the soul as sense-objects to the senses; as these last are affected by their objects, so is the intellect by phantasms. And as sensation of the pleasant or painful is succeeded by desire or avoidance, so also the intellect, when it affirms or desires goodness or badness in an object it apprehends, tends either towards or away from that object.

771. But note that Aristotle's use of terms here suggests a twofold difference between intellect and senses. For in the first place, when the senses apprehend their good and evil, this awareness is not immediately succeeded by pursuit or avoidance, but by pleasure and pain, — after which the sensing subject pursues or withdraws. The reason is that as the senses are not aware of goodness in general, so sense-appetition is not swayed by the good or the bad in general, but only by this or that particular good, pleasant to sense, or, by this or that particular evil, unpleasant to sense. The soul's intellectual part, on the contrary, is aware of goodness and badness in general; hence its appetite at once and immediately responds to this apprehension.

772. The other difference appears in Aristotle's observing, unconditionally, that the intellect affirms or denies, whereas of the senses he only says that they affirm 'so to say'. The reason for this has already been given. And from what has been said he draws the further conclusion that if intellect is related to phantasms as the senses to their object, then just as the senses cannot sense without an object, so the soul cannot understand without phantasms.

773. Then, where he says 'This is comparable',¹ he explains the resemblance still further: (a) as regards the likeness between phantasms and sense-objects in relation to the intellectual soul; and (b) — at 'The intellectual faculty therefore'² — as regards the avoidance or pursuit that follows the affirmation or denial of goodness or badness.

First, then, he remarks that color-affected air itself modifies the pupil of the eye in a particular way, i.e. it imprints on it a likeness of some color, and that then the pupil, so modified, acts upon the common sense. Similarly our hearing, itself affected by the air, acts upon the common sense. And though there are several exterior senses, their reactions all come back to one point, which is a certain common medium between all the senses, like a centre upon which lines from a circumference all converge.

774. And while this mid-point is a unity as a subject, its 'essence' is manifold, that is to say, the idea of it varies according as we relate it to the different senses. It is the faculty by which the soul sees the difference between the sweet and the hot, as we saw when we were considering it in itself;³ and now, relating it to the intellect, we may say that, as all sensible objects find a common terminus in the common sense, so do all phantasms in the intellect. And as in the one case many objects were said to be judged by a single principle, so in the other case also in a like proportion. Again, as to the number of objects judged: the intellect is related to both objects whose distinction it perceives as 'they' to one another, i.e. as the single common sense to the different sensibles whose differences it discerns.

775. It makes no difference whether we speak of the non-homogeneous, i.e. of different sensibles differing in genus, for instance of white which is a color, and sweet which is a savor; or of contrary qualities of the same genus, like black and white. For the common sense discriminates between both kinds of difference.

776. For white, then, let us put A, and for black, B; so that, as A is to B, so is C to D; the latter standing for the phantasms of white and black respectively. Then, varying the proportions, A is to C as B to D: i.e., white is to the phantasm of white as black to the phantasm of black; and as the intellect is to C and D, so is the sense in question to A and B. If therefore C and D, the phantasms of white and black, are related to a unity in so far as they are judged by one intellect, they resemble in this A and B, namely white and black, which are judged by one sense; so that, just as the sense which discriminates these two is in itself one, but twofold in thought, so also is the intellect. And the same reasoning is valid if we take non-homogeneous objects — taking, for instance, A for sweet and B for white.

777. Next, at 'The intellectual faculty',¹ he explains what he said above,² that in affirming or denying good or evil the mind either avoids or pursues; and so concludes that the intellectual part of the soul understands intelligible forms abstracted from phantasms. And just as, when sensible objects are actually present, the mind is impressed by whatever is congenial or abhorrent in them, so too, in the absence of such objects externally, the mind is induced to desire them or fly from them by their representations present in the imagination.

778. And he gives examples. First, of the process that is started by sense-objects actually present — as when a man sees something fearful, for instance the confusion caused by a fire in a city; seeing the flames leaping he knows 'in general' — i.e. by some common

faculty of judging, or perhaps according to what commonly happens — that a conflict is raging; and thus the mind is moved to pursue or flee by objects present exteriorly. But sometimes phantasms or ideas presented inwardly cause the soul to deliberate about things future or present, reckoning them to be desirable or horrible, — as though they were actually seen here and now.

779. Next at 'And generally',³ he compares speculative with practical knowledge. Truth and falsehood, he says, i.e. true and false knowing, both in the sphere of action (the practical intellect) and outside that sphere (the speculative intellect), belong to the same category, whether good or evil.¹ This can be taken in two ways: (1) That the thing understood, either speculatively or practically, may be either good or bad, and that it remains such from the point of view of either mode of understanding; or (2) that the knowing itself is, if true, a good for the intellect, whether it be speculative or practical; whereas if false, it is an evil for the intellect, again in both cases.

780. Thus he is not reducing truth and falsehood to a common genus with good and evil, but truth and falsehood in action to a common genus with truth and falsehood in speculation. This is clear from his distinguishing 'in-action' and 'not-in-action' as 'absolute' and 'relative'. For the speculative intellect considers a thing as true or false universally or 'absolutely', whereas the practical intellect relates its apprehensions to particular things to be done; for doing is always in the particular.

781. Then, at 'The mind understands',² having already said that there is no act of the intellect without a phantasm, and that phantasms derive from sensation, the Philosopher begins to explain how we understand things that are outside the range of sensation. Here he proceeds in two stages: (1) he explains how we understand mathematical objects abstracted from sensible matter; and (2) he enquires whether we understand anything that is immaterial in being at 'Whether it is possible'.³ As regards the first point, note that of things joined in reality the mind may think, and think truly, of one without the other, provided that the concept of the one is not included in that of the other. If Socrates is both white and musical his whiteness can be understood without regard to his musical character; but I cannot understand 'man' if I do not understand 'animal', for the concept of man includes animal. Thus it is possible to distinguish mentally things conjoined in reality, and yet not fall into error.

782. But if the conjoined things were understood as separate things the mind would err, — as, to take our former example, if it judged that the musical person was not white. Certain aspects, however, of sense-objects the mind simply considers in separation or distinctly, without judging them to exist separately. This is what he means by saying that what the mind understands by abstraction (even mathematical objects) it understands in the same way as, e.g., a snub-nose; understanding it precisely as a snub-nose, yet not in separation from sensible matter; for sensible matter, the nose, is included in the definition of a snub-nose.

783. When, however, the mind understands actually anything precisely as curved, it abstracts from flesh; not that it judges the curved thing to be not flesh, but it understands 'curved' without regard to flesh; because flesh does not enter into the definition of a curve. And it is thus that we understand all mathematical objects, — as though they were separated from sensible matter, whilst in reality they are not so.

784. But we do not so understand physical things; for in their definition (unlike mathematical objects) sensible matter is included. Yet in understanding them we still abstract a universal from particulars, in so far as the specific nature is understood apart from the individuating principles; for these do not enter into the definition. And the mind in act is its object; for precisely in the degree that the object is or is not material, it is or is not perceived by the mind. And just because Plato overlooked this process of abstraction he was forced to conceive of mathematical objects and specific natures as existing in separation from matter; whereas Aristotle was able to explain that process by the agent intellect.

785. Next, at 'Whether it is possible',¹ he puts a question about things that exist immaterially: whether, that is, our intellect, though conjoined with spatial magnitude (i.e. the body), can understand 'anything separated', i.e. any substance separated from matter. He undertakes to pursue this enquiry later, — not at present, because it is not yet evident that any such substances exist nor, if they do, what sort of thing they are. It is a problem for metaphysics. In fact, we do not know Aristotle's solution of this problem, for we have not the whole of his Metaphysics; either because it is not yet all translated, or possibly because he died before he could complete it.

786. We should note, however, that when he speaks of the intellect here as not 'separated' from the body he refers to the fact that it is one of the powers of the soul, which is the actuality of the body; whereas speaking, at an earlier stage,¹ of the intellect as 'separated' he was referring to its non-organic mode of activity.

431b 20-432a 14

St. Thomas Aquinas: Commentary on Aristotle's Posterior Analytics, Book II, Lecture 20

(99b18-100b17)

HOW THE FIRST PRINCIPLES OF DEMONSTRATION ARE KNOWN BY US

After showing how that which is the principle of demonstration in the sense of a middle comes to be known, the Philosopher now shows how the first common principles come to be known. First, he states his intention. Secondly, he pursues it (99b20). He says therefore first (99b18), that from what follows it will be clear concerning indemonstrable principles both how we come to know them and by what habit they are known. However, the plan we shall observe calls for us first to propose certain problems touching this matter. Then (99b20) he pursues his plan. Concerning this he does two things. First, he raises the problem. Secondly, he settles it (99b32). In regard to the first he does three things. First, he prefaces something from which the need for an inquiry of this kind is indicated. Secondly, he raises the questions (99b23). Thirdly, he objects to a question (99b26).

He says therefore first (99b20), that it has already been established above that nothing is scientifically known through demonstration, unless the first immediate principles are known beforehand. Therefore, in order to have scientific knowledge of demonstration, it is useful to know how the first principles are acquired.

Then (99b23) he raises three questions touching this knowledge of the principles. The first question is whether the knowledge of all immediate principles is the same or not. The second is whether there is a science of all immediate principles or of none; or is there science of some, and some other type of knowledge of the others. The third question is whether the 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 preexisting 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 knowledge of first principles is science, or some other habit. In regard to this he accepts, from what has been stated above, that the knowledge of principles pertains to the intellect whose function is to know the universal: for he says that the universal is a principle of science. But in regard to the intellect there are two genera of habits, and these are not related to the true in exactly the same way. For some are always true, whereas others sometimes receive what is false, as in opinion and in those cases of reasoning which can be of the true and of the false. Again, there are certain erroneous habits, namely, which bear on the false. But because principles are most true, it is clear that they do not pertain to habits which are always of the false, or even to habits which now and then receive falsity, but only to habits which are always of the true. But these are science and understanding [i.e.,

intuition]. (In Ethics VI a third one is added, namely, wisdom: but because wisdom, as it is stated there, comprehends within itself both science and understanding — since it is a science and the chief of the sciences — he omits it here). Therefore, leaving this one aside, no other genus of knowledge but understanding is more certain than science.

Now it is plain that the principles of demonstrations are better known than the demonstrated conclusions, as was established in Book I. Moreover, it cannot be through science that we have those principles, because science is the result of reasoning, namely, demonstrative, whose principles are the very things about which we are speaking. Therefore, because nothing can be truer than science and understanding (for wisdom is included in them), what follows from our consideration of the foregoing is that, properly speaking, the knowledge of principles is understanding.

He also proves this with another reason, namely, because a demonstration is not of necessity a principle of a demonstration; otherwise there would be an infinite process in demonstrations, and this was disproved in Book I. Since, therefore, demonstration causes science, it follows that science cannot be the principle of science, as though the principles of the sciences were made known through science. Therefore, if we have no other type of knowledge except science which is always true, it follows that understanding will be the principle of science, namely, because the principles of the sciences are made known through understanding, so far forth, namely, that this understanding which is the principle of science is cognoscitive of the principles from which science proceeds. But this, namely, science, is all, i.e., a whole, which is related to every thing (i.e., to the entire matter with which science is concerned) in the way that understanding is related to the principles of science.

SAINT THOMAS AQUINAS: ON THE PRINCIPLES OF NATURE

c. 1.

Note that something can be, even if it is not, while something [simply] is. That which [only] can be [but is not] is said to be in potentiality, whereas that which already exists is said to be in actuality. But there are two kinds of being. There is the essential or substantial being of the thing, as for a man to be, and this is just *to be*, without any qualification. The other kind of being is accidental being, as for a man to be white, and this is [not just *to be*, but] *to be somehow*.²

It is with respect to both kinds of being that something is in potentiality. For something is in potentiality toward being a man, as the sperm and the menstrual blood; and something is in potentiality toward being white, as a man. Both that which is in potentiality in respect of substantial being and that which is in potentiality in respect of accidental being can be said to be matter, as the sperm can be said to be the matter of man and the man the matter of whiteness. But they differ in that the matter that is in potentiality in respect of substantial being is called matter *from* which [something is made - *materia ex qua*], while that which is in potentiality in respect of accidental being is called matter *of* which [something is made - *materia in qua*].³

Again, properly speaking, what is in potentiality toward accidental being is called a subject, while that which is in potentiality toward substantial being is properly called matter. And it is significant that what is in potentiality toward accidental being is called a subject, for we say that an accident is in a subject, while of a substantial form we do not say that it is in a subject.⁴

² The contrast in the Latin is that between *esse*, to be, absolutely speaking, and *esse aliquid*, literally, to be something. But since Aquinas' point here is the contrast between the substantial being of a thing on account of which it exists as a substance of some kind and its accidental being on account of which it is in a way, say, as being of such and such a shape, size, color, etc., the idea is better brought out in English by contrasting being absolutely with being somehow.

³ The literal rendering of the distinction in Latin (between *materia ex qua* and *in qua*, i.e., matter "from which" and "in which" something is made, respectively) would not be as helpful as the existing English distinction between matter that a thing is "made *from*" and matter that it is "made *of*". The former member of the existing distinctions in both languages indicates the transient matter of a thing, that *from* which it is made through some substantial transformation of this matter. This is how we say that bread is made *from* flour. But we cannot say that the bread is made *of* flour. The latter construction indicates the permanent matter of the thing, which is actually present in the constitution of the thing as long as the thing exists. This is how we say that a statue is made *of* bronze (but, again, a bronze statue is made *from* tin and copper).

⁴ This is an allusion to Aristotle's doctrine in the *Categories*, where he distinguishes substance and accident in terms of *not being in* or *being in* a subject. Aquinas's point here is that strictly speaking it is only an accident that can be said to be in a subject, namely, in an actually existing substance that has its actual substantial being whether it actually has this accident or not. A substantial form, by contrast, cannot exist in a subject in this strict sense, for what it informs cannot have actual substantial existence without this form, since it has this actual existence precisely on account of actually having this form. Accordingly, a substantial form is not an accident, although it is not a complete substance either: it is a substantial part of a complete substance, along with the matter of this substance it informs.

So, matter differs from subject in that a subject does not have being from what comes to it, as it has complete being in itself. For example, a man does not have his being [absolutely speaking] from his whiteness. Matter, however, does have its being from what comes to it, for matter in itself does not have complete being, but incomplete [i.e., merely potential] being. Therefore, form gives being to matter, absolutely speaking, but the subject gives being to the accident, even if sometimes one term is taken for the other, i.e. “matter” for “subject”, and *vice versa*.

Again, just as everything that is in potentiality can be called matter, so everything from which something has being, whether accidental or substantial being, can be called a form; just as a man, who is white in potentiality, will be actually white on account of whiteness, and the sperm, which is a man in potentiality, will be actually a man on account of the soul. And since form makes something actual, form is also called actuality. That which makes something actual in accidental being is accidental form, and that which makes something actual in substantial being is substantial form.

Since generation is motion towards form, to these two kinds of form there correspond two kinds of generation: to substantial form there corresponds generation absolutely speaking, while to accidental form there corresponds generation with qualification. For when the substantial form is introduced, something is said to come to be, without further qualification. But when an accidental form is introduced, we do not say that something comes to be, without qualification, but that something comes to be this; just as when a man becomes white, we do not say that he comes to be, absolutely speaking, but that he comes to be white. And to these two kinds of generation there correspond two kinds of corruption, namely corruption in an absolute sense, and corruption with qualification. Generation and corruption absolutely speaking are only in the category of substance, while those with qualification are in the other categories.⁵

And since generation is a kind of mutation from non-being into being, and corruption, conversely, should be from being to non-being, generation starts not from just any kind of non-being, but from a non-being that is a being in potentiality: for example, a statue is generated from bronze, which can be a statue, but is not actually a statue.

So, for generation three things are required: a being in potentiality, which is matter, non-being in actuality, which is privation, and that by which the thing will be actual, namely form. For example, when from bronze a statue is formed, the bronze, which is in potentiality toward the form of the statue, is matter; its shapelessness is called privation; and its shape, on account of which it is called a statue is its form, though not its substantial form, for the bronze was already actual even before the introduction of this form or shape, and its existence does not depend on this shape, but is an accidental form.

⁵ Again, this is an allusion to Aristotle’s doctrine of the *Categories*. Substantial change takes place only in the category of substance, i.e., with respect to substantial forms signified by terms falling into the logical category of substance. Accidental changes take place with respect to accidental forms signified by terms classified under one or the other of the categories of accidents. In his *Physics*, Aristotle also argues that primarily there is accidental change only in the categories of quantity (augmentation or diminution), quality (alteration), and place (locomotion). All other accidental changes take place on account of these primary changes: for example, the relational changes of becoming unequal or dissimilar obviously take place on account of the quantitative or qualitative change in one or the other of the things that started out as equal or similar.

For all artificial forms are accidental, because art works only on what is supplied by nature already in complete existence.

c. 2.

So, there are three principles of nature, namely matter, form and privation, of which one is *that to which* generation proceeds, namely form, and the other two are *that from which* generation proceeds. Therefore, matter and privation are the same in their subject, but differ in their concepts. For the very same thing that is bronze is shapeless before the advent of the form; but it is for different reasons that it is called bronze and shapeless.

Therefore privation is called a principle not *per se* [on its own account] but *per accidens* [by coincidence], namely, because it coincides with matter, just as we say that this is *per accidens*: the doctor builds a house, for he builds not on account of being a doctor, but insofar as a builder, who happens to be a doctor.

But there are two kinds of accidents: namely necessary [accident], which is not separated from its subject, as risibility from man, and not necessary [accident], for example, whiteness, which can be separated from man.⁶ Therefore, although privation is a principle *per accidens*, it does not follow that it is not required for generation, because matter is never stripped of privation; for insofar as it is under one form, it has the privation of another, and conversely, as in fire there is the privation of the form of air.⁷

We should know that even if generation proceeds from non-being, we do not say that its principle is negation, but that it is privation, for a negation does not determine its subject. For that it does not see can [truly] be said also of a non-being, as [when we say that] a chimera does not see, and also of a being that is naturally incapable of having sight, as [when we say that] a rock does not see. But a privation can be said only of a determinate subject, in which the opposite habit is naturally apt to occur, for example, only those things can be said to be blind that are naturally apt to see [but actually lack sight].

And since generation does not proceed from non-being absolutely speaking, but from a non-being in some subject, and not in just any kind of subject, but in a determinate subject (for it is not from just any kind of non-being that fire is generated, but from that kind of non-fire in which the form of fire is apt to come to be), we say that privation is a principle.

⁶ This is an allusion to Porphyry's doctrine in his *Isagoge*, where he distinguishes inseparable and separable accidents. For although accidents may or may not belong to the same subject without the corruption of that subject according to Porphyry's definition, some accidents are naturally inseparable from their subjects, although their subjects can be conceived to exist without those accidents (so, in their case the 'may' in the Porphyrian definition should be understood as mere logical possibility, as opposed to some genuine natural potentiality).

⁷ Privation is the *logically necessary* starting point of any coming-to-be (for if the thing already had the opposite form, then it could not *come* to have that form). Yet, privation merely coincides with the principle that renders change *naturally possible*, namely, matter. For an amorphous lump of bronze *is able to* become a statue through its own change *not* on account of the fact that it does not have the shape of the statue (for otherwise everything that does not have that shape, say, an angel or the square root of two, would have to be able to do so), but on account of its *natural ability* to take on and preserve that shape. So, the *per se* principle of this change (that on account of which it can occur) is the bronze, which is coincidentally (*per accidens*), but logically necessarily lacking the shape it will take on when it is shaped into a statue.

But it differs from the others in that the other two are principles both of being and of coming to be. For in order that a statue is generated there has to be bronze, and in the end there has to be the form of the statue, and further when the statue already exists, these two also have to exist. However, privation is only the principle of coming to be, but not of being, for while the statue is still coming to be, it is necessary that the statue does not yet exist. For if it already existed, it would not be coming to be, for what is still coming to be does not yet exist, apart from processes. But when the statue already exists, there is no privation of the shape of the statue, for affirmation and negation cannot stand together, and similarly neither can privation and habit.

Again, privation is a principle *per accidens*, as was explained above, and the other two are principles *per se*. From what has been said it is clear, then, that matter differs from form and privation in its concept. For matter is that in which form and privation are thought to be, as it is in the bronze that form and formlessness are thought to be.

Sometimes matter is named with privation, and sometimes without it. For example, the concept of bronze, when it is the matter of the statue, does not imply privation: for when I call something bronze, this does not imply that it is shapeless or formless. On the other hand, the concept of flour does imply the privation of the form of bread, for when I call something flour, this does signify a shapelessness or formlessness opposite to the form of bread.

And since in the process of generation matter or the subject remains, but privation or what is composed of matter and privation does not, that matter which does not imply privation in its concept is permanent, while that matter which does is transient.

We should know that some matter has some form, for example, the bronze, which is matter in respect of the statue, but bronze itself is composed of matter and form; wherefore bronze is not called prime matter, for it has matter. But that matter which is thought of without any kind of form or privation as subject to all forms and privations is called *prime matter*, because there is no other matter before it. And this is also called *hyle*.

Now, since [any] definition and cognition is [obtained] by form, prime matter cannot be cognized or defined in itself, only by comparison, as when we say that prime matter is that which is to all forms and privations as bronze is to the form of the statue and to the lack of this form. And this matter is called *prime matter* without qualification.

For something can [also] be called prime matter *in respect of a genus*, as water is the prime matter of all liquids. But it is not *prime matter* without qualification, for it is composed of matter and form, so it has matter prior to it.

We have to know that prime matter, as well as form, is not generated (or corrupted), for every generation proceeds to something from something. That *from which* generation proceeds is matter, and that *to which* generation proceeds is form. Therefore, if either matter or form were generated, then matter would have matter and form would have form, and so on, *in infinitum*. So, properly speaking, only the composite substance is generated.

We also have to know that matter is said to be numerically one in all things. But something is said to be numerically one in two ways. First, that is said to be numerically one which has one determinate form, e.g., Socrates; but prime matter is not said to be

numerically one in this way, for in itself it does not have any form. Second, a thing can also be said to be numerically one because it lacks those dispositions which make things numerically different, and it is in this way that matter is said to be numerically one.

We should know that although matter does not have in its nature some form or privation, as in the concept of bronze neither shape nor the lack of some shape is included; nevertheless, matter is never stripped of form or privation, for sometimes it is under one form, while sometimes it is under another. But it can never exist in itself, because on account of its very concept it does not have any form, whence it does not have actual existence (since something can have actual existence only through its form), but it exists only potentially. So nothing in actual existence can be called prime matter.

c. 3.

From what has been said it is clear, then, that there are three principles of nature, namely matter, form and privation. But these three are insufficient for generation, for nothing drives itself into actuality, e.g., a chunk of bronze, which is in potentiality to become a statue, does not make itself into an actual statue, but it needs an agent that brings out the form of the statue from potentiality to actuality. And the form would not bring itself from potentiality into actuality either (and I am speaking here about the form of the thing being generated, which we call the end of the generation), for the form does not exist until it has come to be, but what is acting is already existing during the process of generation. So, it is necessary to have another principle beside matter and form, namely, something that acts, and this is called the efficient or moving cause, or the agent or the principle of motion. And since, as Aristotle says in the second book of his *Metaphysics*, whatever acts does so only with intending something, there has to be also a fourth [principle], namely that which is intended by the agent, and this is called the end.

We have to know, however, that every agent, natural as well as voluntary, intends some end. But from this it does not follow that all agents recognize this end, or deliberate about the end. For to recognize the end is necessary only for those agents whose acts are not determined, but which can have alternatives for [their] action, namely, voluntary agents, who have to recognize their ends by which they determine their actions. However, the actions of natural agents are determined, so it is not necessary that they elect the means to an end. And this is what Avicenna illustrates with his example of the guitar, which need not deliberate the plucking of its strings, as these are determined for it [by the player], for otherwise there would be delays between the single sounds, which would result in dissonance.

Now a voluntary agent rather appears to deliberate than a natural agent. So, [since even a voluntary agent may act without deliberation,] it follows by *locus a maiori*⁸ that it is

⁸ Aquinas alludes here to a dialectical topic (a form of probable argument discussed by Aristotle in his *Topics*, his logical work on probable reasoning). The *locus a maiori apparentia* (the topic from greater appearance) relies on the following maxim (a general observation that licenses a probable inference): if a thing that is more likely to have an attribute than another does not have it, then the other does not have it either. The maxim, therefore, licenses the inference from the lack of an attribute in something that would more likely to have it, i.e., concerning which there would be a greater appearance (*maior apparentia*) that it would have this attribute, to the lack of the same attribute in something else that is less likely to have it. For example, if a math teacher assigns a problem to his students that even he cannot solve, his students can

possible for a natural agent to intend some end without deliberation. And this kind of intending an end is nothing, but having a natural inclination towards it.

From what has been said, then, it is clear that there are four kinds of causes, namely, material, efficient, formal and final. And although the terms “principle” and “cause” can be used interchangeably, as is stated in the fifth book of the *Metaphysics*, in the *Physics* Aristotle distinguished four causes and three principles. For [there] he took causes to comprise both extrinsic and intrinsic ones. Now matter and form are said to be intrinsic to the thing, for they are constituent parts of the thing; but the efficient and the final cause are said to be extrinsic, for they are outside of the thing. But [in this passage of the *Physics*] he took only the intrinsic causes to be principles. On the other hand, privation is not counted among the causes, for privation is a *per accidens* principle, as we said. So, when we speak about the four causes, we mean the *per se* causes, but also *per accidens* causes are reduced to the *per se* ones, for whatever is *per accidens* is reduced to what is *per se*.

But even if in the first book of his *Physics* Aristotle takes intrinsic causes for principles, nevertheless, as he says in the eleventh book of his *Metaphysics*, properly speaking the extrinsic causes are principles and the intrinsic causes that are parts of the thing are elements, and both can be called causes. But sometimes these terms are used interchangeably. For every cause can be called a principle and every principle can be called a cause, though the concept of cause seems to add something to that of principle in its ordinary sense, for whatever is first can be called a principle,⁹ whether there results some existence from it or not. For example, a craftsman can be called the principle of a knife, as from his work there results the being of the knife. But when something turns from black to white, then we can say that blackness is the principle [beginning] of this change - and generally speaking everything from which some change begins can be called a principle - still, from this blackness there did not result the being of whiteness. But only that first thing is called a cause from which there follows the being of a posterior thing; so we say that a cause is something from the being of which there follows the being of something else.

For this reason, that first thing from which the motion starts cannot be called a cause *per se*, even if it is a principle, whence privation is counted among principles, but not among causes, for privation is that from which generation starts. But [privation] can also be called a cause *per accidens*, insofar as it coincides with matter, as was explained earlier.

However, only those things are properly called elements that are causes of which the thing is composed, which are properly material, and not just any material causes, but only those of which the thing is primarily composed. We do not say, for example, that his limbs are the elements of a man, for the limbs themselves are also composed of others;

argue that they should not be expected to solve it, relying on this form of argument. For in this case there is a greater appearance that the teacher should be able to solve the problem, based on his greater knowledge and experience. But if he cannot solve it, then the maxim licenses the conclusion that his students (who are less likely to solve a problem than he is) cannot solve it either. Likewise, if voluntary agents can intend something without deliberation, then involuntary agents can also intend something without deliberation.

⁹ In its ordinary, common sense, the Latin word *principium* from which the English word ‘principle’ derives simply denotes the beginning or first member of any series of items.

but we do say that earth and water are elements, for these are not composed of other bodies, but it is from them that all natural bodies are primarily composed. Therefore Aristotle in the fifth book of the *Metaphysics* says that an element is something from which a thing is primarily composed, is in the thing, and is not divided according to form.

The first part of this definition, namely, “something from which a thing is primarily composed”, is evident from what has been just said. The second part, namely, “is in the thing”, is put here to distinguish elements from that kind of matter which is totally corrupted in generation. For example, bread is the matter of blood, but blood is not generated, unless the bread from which it is generated passes away; so the bread does not remain in the blood, whence bread cannot be said to be an element of blood. But elements somehow have to remain, since they do not pass away, as it is said in the book *On coming to be and passing away*. The third part, namely, that an element is not divided according to form, is meant to distinguish an element from those things that have parts different in form, i.e., in species, as, for example, a hand, the parts of which are flesh and bones, which are different in species. But an element is not divided into parts that differ in species, as water, of which every part is water. For it is not required for something to be an element that it should be indivisible in quantity, but it is sufficient, if it is not divisible according to species; but if something is indivisible also in this way, then it is also called an element, as letters are called the elements of expressions. So it is clear that “principle” covers more than “cause”, and “cause” more than “element”. And this is what the Commentator says in commentary on the fifth book of the *Metaphysics*.

c. 4.

Having seen that there are four genera of causes, we have to know that it is not impossible for the same thing to have several causes, as for a statue, the causes of which are both the bronze and the sculptor, but the sculptor as efficient, while the bronze as its matter. Nor is it impossible for the same thing to be the cause of contraries. For example, the pilot can be the cause both of the salvation and of the sinking of the ship, but of the one by his presence, while of the other by his absence. We also have to know that it is possible that something be both cause and effect in respect of the same thing, but not in the same way: for walking is the cause of health as its efficient, but health is the cause of walking as its end: for we take a walk sometimes for the sake of our health. Again, the body is the matter of the soul, while the soul is the form of the body. Also, the efficient is said to be the cause of the end, for the end comes to be by the operation of the agent, but the end is the cause of the efficient, insofar as the agent operates only for the sake of the end. Whence the efficient is the cause of the thing that is the end, say, health; but it does not cause the end to be the end; as the doctor causes health, but he does not cause health to be the end. On the other hand, the end is not the cause of the thing that is the efficient, but is the cause for the efficient to be efficient: for health does not cause the doctor to be a doctor (and I am speaking about the health that is produced by the operation of the doctor), but it causes the doctor to be efficient, so the end is the cause of the causality of the efficient, for it causes the efficient to be efficient, and similarly, it causes matter to be matter and form to be form, for matter does not receive form, except for the sake of the end, and form does not perfect matter, except for the sake of the end. Whence it is said that the end is the cause of all causes, for it is the cause of the causality of all causes. For matter is said to be the cause of form, insofar as the form exists only in matter; and

similarly, form is the cause of matter, insofar as matter has actual existence only by the form. For matter and form are correlatives, as is said in the second book of *Physics*. They are related to the composite substance, however, as parts and as simple to composite.

But since every cause insofar as it is a cause is naturally prior to its effect, we should know that something is called “prior” in two ways, as Aristotle says in the sixteenth book of his *On Animals*. And on account of this diversity something can be called both prior and posterior in respect of the same thing, and both cause and effect. For something is said to be prior to something else in respect of generation and time, and again, in respect of substance and completion. Now since the operation of nature proceeds from what is imperfect to what is perfect and from what is incomplete to what is complete, what is imperfect is prior to what is perfect in respect of generation and time, but what is perfect is prior in completion. So we can say that a man is prior to a boy in substance and perfection, but the boy is prior to the man in generation and time. But although among generable things that which is imperfect is prior to what is perfect, and potentiality is prior to act (considering the same thing that is imperfect prior to becoming perfect, and is in potentiality prior to becoming actual), nevertheless, absolutely speaking, what is actual and perfect is necessarily prior: for what reduces that which is in potentiality to actuality is in actuality, and what perfects the imperfect, is itself perfect. Now matter is prior to form in generation and time: for that to which something is coming is prior to what is coming to it. Form, however, is prior to matter in perfection, since matter has no complete existence, except by the form. Similarly, the efficient is prior to the end in generation and time, for it is from the efficient that motion starts toward the end. But the end is prior to the efficient, insofar as it is efficient, in substance and completion, for the action of the efficient is completed only by the end. So these two causes, namely, matter and the efficient, are prior in generation; but the form and the end are prior in perfection.

And we should note that there are two kinds of necessity: absolute necessity and conditional necessity. Absolute necessity proceeds from those causes that are prior in generation, which are matter and the efficient: for example, the necessity of death derives from matter and the disposition of the contrary components of the body; and this is called absolute, because it cannot be impeded. And this type of necessity is also called the necessity of matter. Conditional necessity, on the other hand, proceeds from those causes that are posterior in generation, namely, form and the end. For example, we say that conception is necessary, if a man is to be generated; and this is conditional, for it is not absolutely necessary for this woman to conceive, but under this condition, namely, that if a man is to be generated. And this is called the necessity of the end.

We should also know that three causes can coincide, namely the form, the end and the efficient, as is clear in the generation of fire. For fire generates fire, so fire is the efficient, insofar as it generates; again, fire is form, insofar as it makes actual that was previously potential, and again, it is the end, insofar as it is intended by the agent, and insofar as the operation of the agent is terminated in it. But there are two kinds of ends, namely the end of generation and the end of the thing generated, as is clear in the generation of a knife. For the form of the knife is the end of its generation; but cutting, which is the operation of the knife, is the end of the thing generated, namely of the knife. Now the end of generation sometimes coincides with two of the above-mentioned causes, namely, when something is generated by something of the same species, as when man generates man,

and an olive tree generates an olive tree. But this may not be thought to apply to the end of the thing generated.

We should know, however, that the end coincides with the form numerically, for it is numerically the same item that is the form of the generated thing and that is the end of the generation. But with the efficient it does not coincide numerically, but can coincide specifically. For it is impossible for the maker and the thing made to be numerically the same, but they can be the same specifically. For example, when a man generates a man, then the man generating and the man generated are numerically different, but are specifically the same. However, matter does not coincide with the others, because matter, since it is a being in potentiality, is by its very nature imperfect, while the other causes, since they are actual, are by their nature perfect; but what is perfect and what is imperfect never coincide.

c. 5.

Having seen that there are four kinds of causes, namely, efficient, material, formal and final, we have to know that each of these kinds is divided in various ways. For some causes are called prior and some are called posterior, as when we say that the art of medicine and the doctor are both causes of health, but the art is the prior, while the doctor is the posterior cause; and similar distinctions apply in the case of the formal cause and the other kinds of causes.

Note here that in our inquiry we always have to go back to the first cause, as when we ask: Why is he healthy? The answer is: because the doctor cured him. And then, further: How did he cure him? The answer is: by his knowledge of medicine. And we should know that it is the same thing to say that a cause is posterior and that it is proximate, or that a cause is prior and that it is remote. So these two divisions of causes, namely, into prior vs. posterior and into proximate vs. remote, signify the same. But we should know that the more universal cause is always called the remote cause and the more specific cause is called the proximate cause. For example, we say that the proximate form of man is what his definition signifies, namely rational, mortal animal, but his more remote form is animal and the even more remote one is substance. For all superiors are forms of the inferiors. Similarly, the proximate matter of the statue is bronze, while the more remote is metal and the even more remote one is body.¹⁰

Again, some causes are *per se*, others are *per accidens*. A *per se* cause of a thing is its cause insofar as it is such, as the builder [insofar as he is a builder] is the cause of the house, or the wood [insofar as it is wood] is the matter of the bench. A cause *per accidens* is one that coincides with the cause *per se*, as when we say that the doctor is building. For the doctor is a cause *per accidens* of the building, because he is building not insofar as a

¹⁰ Although Aquinas exemplifies his claim in the case of formal and material causes, the same type of correlation between priority and universality can be observed in the case of efficient causes as well: the more remote, that is, prior cause is always more universal (i.e., acting in virtue of a more universal form, and so affecting a more extensive class of particulars). Therefore, if there is an absolutely first efficient cause, then it has to be the most universal cause, i.e., the absolutely universal cause of all beings (other than itself) as such.

doctor, but insofar as he coincides with the builder. And the situation is similar in all other cases.

Again, some causes are simple, some are composite. Something is called a simple cause, when it is named only by the name of the *per se* cause, or only by the name of the *per accidens* cause, as when we say that the builder is the cause of the building, and similarly when we say that the doctor is the cause of the building. But a cause is called composite, when we name it by the name of both, as when we say that the builder-doctor is the cause of the building.

But, according to Avicenna's exposition, something can also be called a simple cause, if it is a cause without the addition of anything else, as bronze is the cause of the statue, for the statue is made of bronze without the addition of any other matter, or when we say that the doctor causes health, or the fire causes heat. We have a composite cause, however, when several things need to come together to constitute the cause; for example, one man cannot be the cause of the movement of a ship [by towing it], but many can, or one stone cannot be the matter of a house, but many stones can.

Again, some causes are actual causes, others are potential. An actual cause is one that is actually causing the thing, as the builder when he is actually building, or the bronze, as the statue is actually being made of it. A potential cause, on the other hand, is what is not actually causing the thing, but can cause it, as the builder, when he is actually not building. And we should know that the actual cause and its effect should exist at the same time, so that if one of them exists, then other has to exist too.¹¹ For if the builder is actually working, then he has to be building, and if the act of building actually takes place, then the builder actually has to be working. But this is not necessary in the case of merely potential causes.

We should know further that a universal cause is compared to a universal effect and a singular cause is compared to a singular effect. For example, we say that a builder is the cause of a building in general, but also that this builder is the cause of this building in particular.

c. 6.

We should also know that we can speak about the agreements and differences of the principles in terms of the agreements and differences of what they are the principles of. For some things are numerically identical, as Socrates and this man, pointing to Socrates; some things are numerically different, and specifically the same, as Socrates and Plato, who are both human, but are numerically distinct. Again, some things differ specifically, but are generically the same, as a man and a donkey, which both belong to the genus of animals; still others are the same only analogically, as substance and quantity, which do

¹¹ An efficient cause of a thing is its actual cause only as long as it actually generates the thing, if it is a generative cause, or as long as it actually sustains the actual being of the thing, if it is a preservative cause. According to the medieval conception, it is in this latter sense that God, the Creator, is the actual efficient cause of his creatures continuously sustaining their existence in the ongoing act of continuous creation (*creatio continua*), without which creatures would simply fall into nothing, just as the lights go out if the power is turned off. It is this conception that allows the inference from the actual existence of creatures to the actual existence of the Creator, i.e., God.

not agree in some genus, but agree only analogically: for they agree only in that they are beings. But being is not a genus, because it is not predicated univocally, but analogically.

To understand this better, we have to know that it is in three different ways that something can be predicated of several things: univocally, equivocally and analogically. Something is predicated univocally, if it is predicated by the same name and according to the same concept or definition, as “animal” is predicated of a man and a donkey, because both [man and donkey] are said to be animals and both are animated sensible substances, which is the definition of animal. Something is predicated equivocally, if it is predicated of several things by the same name, but according to different concepts, as “dog” is predicated both of the barking animal and of the constellation, which agree only in this name but not in the definition or signification of this name: for what is signified by a name is its definition, as is stated in the fourth book of the *Metaphysics*. Finally, something is predicated analogically, if it is predicated of several things, the concepts of which are different, but are related to the same thing. For example, “healthy” is said of the body of animals and of urine and of food, but it does not signify the same in all these cases. For it is said of urine, insofar as it is a sign of health, of the body, insofar as it is the subject of health, and of the food, insofar as it is the cause of health; but all of these concepts are related to one and the same end, namely, health. For sometimes those that agree analogically, i.e., proportionally, or in some comparison or similitude, are related to the same end, as is clear in the previous example, but sometimes they are related to the same agent; for example, when “medical” is predicated of someone who operates by the knowledge of medicine, as a doctor, or without it, as a nurse, or when it is said of some medical instrument, always in relation to the same agent, namely the art of medicine. Again, sometimes they are related to the same subject, as when “being” is predicated of substance, of quality, of quantity and of the other categories. For it is not entirely the same concept according to which a substance is said to be a being, and a quantity and the rest, but all these are said to be beings only in relation to substance, which is the subject of all of them. So “being” is said primarily of substance, and only secondarily of the rest. Whence “being” is not a genus, for no genus is predicated primarily and secondarily of its species, but “being” is predicated analogically. And this is what we said, namely, that substance and quantity differ generically, but they are the same analogically.

Therefore, of those things that are numerically the same, also the form and matter are numerically the same, as Tully’s and Cicero’s. Of those things, however, that are specifically the same, but numerically distinct, also the matter and form are numerically distinct, but specifically the same, as Socrates’s and Plato’s. Likewise, of those things that are generically the same, also the principles are generically the same: as the soul and the body of a donkey and of a horse differ specifically, but are the same generically. Again, in a similar manner, of those that agree only analogically, also the principles agree only analogically. For matter and form or potentiality and actuality are the principles both of substance and of the other categories. But the matter of substance and that of quantity, and similarly their forms, differ generically, and agree only analogically or proportionally in that the matter of substance is to substance as the matter of quantity is to quantity. But just as substance is the cause of other categories, so the principles of substance are the principles of the rest.

Boethius's De Hebdomadibus

(How Can Substances Be Good in Virtue of the Fact That They Have Being When They Are Not Substantial Goods?)

Translated by Scott MacDonald

[Prologue]

You ask that I should set out and explain a little more clearly the obscurity of that question from our hebdomads which concerns the way in which substances are good in virtue of the fact that they have being when they are not substantial goods.¹² <5> And you say that this should be done because the method of writings of this sort is not known to all. Now I myself am your witness how eagerly you have embraced these things before. But I contemplate the hebdomads on my own for myself and keep my thoughts in my memory rather than share them with any of those who, out of perversity and impudence, permit nothing to be composed without jest and laughter. < 11 > Therefore, do not object to the obscurities associated with brevity which, since they are a faithful guardian of a secret, have the advantage of speaking only with those who are worthy. For that reason I have put forward first terms and rules on the basis of which I will work out all the things that follow, as is usually done in mathematics (and other disciplines also).

[The Axioms]

[I.] < 18> A conception belonging to the common understanding is a statement that anyone approves once it has been heard. There are two types of these. One type is common in the sense that it belongs to all men-e.g., if you propose: "If you take away equals from two equals, what remain are equals," no one who understands it denies it. The other type belongs only to the learned, even though it comes from such conceptions as belong to the common understanding-e.g., "Things which are incorporeal are not in a place," and others that the learned but not the uneducated acknowledge.

[II.] <28> Being and that which is are different. For being itself does not exist yet, but that which is exists and is established when it has taken on the form of being.

[III.] <31> That which is can participate in something, but being itself participates in no way in anything. For participation comes about when something already exists; but something exists when it has assumed being.

[IV.] <35> That which is can have something besides what it itself is; but being itself has nothing besides itself mixed into it.

[V.] <38> Being something merely and being something in virtue of the fact that it has being are different. For an accident is signified in the former case, a substance in the latter.

¹²The Latin texts are Boethius 1978a and Peiper 1871. The line numbers from Rand's text are given in angle brackets in the text of the translation. In preparing this translation, I have consulted the translations of Stewart, Rand, and Xester in Boethius 1978a, Boethius 1981, and de Rijk's suggestions for translating the axioms in de Rijk 1987

[VI.] <41> Everything that participates in being so that it exists participates in something else so that it is something.¹³ Hence, that which is participates in being so that it exists; but it exists so that it might participate in anything else whatever.

[VII.] <45> Every simple has its being and that which is as one.

[VIII.] <47> For every composite, being and it itself are different.

[IX.] <49> Every difference is discord, but likeness is to be sought. And what seeks another is itself shown to be naturally the same sort as that very thing which it seeks.

These things that we have set down to begin with, therefore, are enough. A careful interpreter of the reasoning will fit each one to its arguments .

[The Question]

<56> Now the question is of this sort. Things which exist are good. For the common view of the learned holds that everything which exists tends toward good. But everything tends toward its like. Therefore, the

2.

things which tend toward good are themselves good. <60> But we have to ask how they are good, by participation or by substance?

If by participation, they are in no way good in themselves. For what is white by participation is not white in itself in virtue of the fact that it itself has being. And the same applies to other qualities. <65> Therefore, if they are good by participation, they are in no way good in themselves. Therefore, they do not tend toward good. But that was granted. Therefore, they are not good by participation but by substance.

Now for those things the substance of which is good, what they are are good.¹⁴ But that which they are they have from [their] being. <71 > Therefore, their being is good; and therefore, the being itself of all things is good. But if [their] being is good, those things which exist are good in virtue of the fact that they have being, and, for them, being is the same as being good. Therefore, they are substantial goods because they do not participate in goodness.

<75> But if being itself is good in their case, there is no doubt that since they are substantial goods, they are like the first good. And hence, they will be this good itself; for nothing is like it besides it itself: It follows from this that all things which exist are God,

¹³I follow de Rijk's reading (1987), omitting the est, with the best manuscripts, and emending *alio uero* to *aliquo*.

¹⁴The awkward English in this sentence reflects what seems to me to be Boethius's use of painstakingly precise Latin terminology. The Latin text of the short argument in which this claim occurs is: "*Quorum vero substantia bona est, ID QUOD SUNT BONA SUNT*"; *id quod sunt autem habent ex eo quod est esse. Esse igitur ipsorum bonum est.*" The emphasized clause is the cause of the awkward English. Boethius's understanding of the expression *id quod sunt* in this passage seems to me to be the following. He takes *id quod est* to signify the essence of a thing ('that which it is' or 'what it is'-notice that this use of *id quod est* is different from its use in the Axioms). Since many things share one essence, Boethius uses *id quod sunt* ('that which they are,' 'what they are'). But there are many such essences, and Boethius wants to claim that all of these are good; hence the last plural verb: *bona sunt*.

which is an impious claim. Therefore, they are not substantial goods, and hence being is not good in their case. Therefore, they are not good in virtue of the fact that they have being. But neither do they participate in goodness, for then they would in no way tend toward good. Therefore, they are in no way good.

[The Solution]

<86> A solution of the following sort can be offered to this question. There are many things that, although they cannot be separated in actuality, nevertheless are separated in the mind and in thought. For example, although no one separates a triangle (or other [geometric figures]) from the underlying matter in actuality, nevertheless, distinguishing it in the mind, one examines the triangle itself and its essential character apart from matter. Therefore, let us remove from our mind for a little while the presence of the first good. (That it does exist is, of course, certain on the basis of the view of the learned and the unlearned and can be known from the religions of barbarian races.) <95> Therefore, having removed this for a little while, let us suppose that all things which are good exist. And let us consider how those things could be good if they had not flowed down from the first good.

From this point of view I observe that, in their case, that they are good and what they are are different. For let one and the same good substance be supposed to be white, heavy, and round. Then that substance itself, its roundness, its color, and its goodness would all be different, for if these items were the same as the substance itself, heaviness would be the same as color, [color] as good, and good as heaviness. < 105> But nature does not allow this. Therefore, in their case, being and being something would be different; and then they would indeed be good but they would not have [their] being itself as good. Therefore, if they did exist in any way, then they would not be from the good and they would be good and they would not be the same as good; but, for them, being and being good would be different.

But if they were nothing else at all except good, neither heavy nor colored nor extended in spatial dimension nor were there any quality in them excepting only that they were good, then it would seem that they are not [merely] things but the source of things. <115> Nor would "they" seem [so], but rather "it" would seem [so], for there is one and only one thing of this sort that is only good and nothing else.

But because they are not simple they cannot exist at all unless that thing which is only good willed that they exist. Therefore, they are said to be good because their being flowed from the will of the good. For the first good, because it is, is good in virtue of the fact that it is.¹⁵ But a second good, because it flowed from that whose being itself is good, is itself also good. <124> But the being itself of all things flowed from that which is the first good and which is such that it is properly said to be good in virtue of the fact that it is. Therefore, their being itself is good, for it is then in it [-that is to say, the first good].

¹⁵In this sentence I translate the phrase *in eo quod est* with 'in virtue of the fact that it is' rather than the usual 'in virtue of the fact that it has being' because Boethius is talking here about the first good, which is simple and therefore cannot be said to have properties.

In this the question has been resolved. For although they are good in virtue of the fact that they have being, nevertheless they are not like the first good. For it is not just in any way whatever in which things have being that their being itself is good, but because the being itself of things cannot exist unless it has flowed down from the first being, i.e., the good. Therefore, [their] being itself is good and it is not like that from which it has being. < 134> For [the first good] is good in virtue of the fact that it is in whatever way it is, for it is not anything other than good. But [a second good] could perhaps be good but it could not be good in virtue of the fact that it has being unless it were from [the first good]. For then it would perhaps participate in good; but they could not have being itself, which they would not have from the good, as good. Therefore, when the first good is removed from them in the mind and in thought, these things could not be good in virtue of the fact that they have being, even though they could be good. And since they could not exist in actuality unless that which truly is good had produced them, their being is good, and that which flowed from the substantial good is not like it. < 146> And if they had not flowed from it, they could not be good in virtue of the fact that they have being, even though they could be good-this is because they would be both other than the good and not from the good, while that thing is itself the first good and is being itself and the good itself and being good itself.

[Objections and Replies]

And will it not also be necessary that white things are white in virtue of the fact that they have being, since those things that are white have flowed from the will of God so that they are white? Not at all. For being and being white are different in their case because of the fact that he who produced them so that they exist is indeed good but not white.¹⁶ <155> Therefore, it followed from the will of the good that they are good in virtue of the fact that they have being. But it did not follow from the will of what is not white that the essential character such that a thing is white in virtue of the fact that it has being belongs to it; for they have not flowed down from the will of the white: And so, because he who willed those things to be white was not white, they are white merely. But because he who willed those things to be good was good, they are good in virtue of the fact that they have being.

Therefore, according to this reasoning, must not all things be just since he is just who willed them to exist? No indeed. < 165> For being good has to do with essence, but being just with an act. In him, however, being is the same as acting, and therefore being good is the same as being just. But, for us, being is not the same as acting, for we are not simple. For us, therefore, being good is not the same as being just; but, for us, all [and only] the things in virtue of which we have being are the same.¹⁷ Therefore, all things are good [but] not also just.

¹⁶I follow de Rijk (1987) in reading an *eis* in the first clause.

¹⁷The phrase I have translated 'in virtue of which we have being' is *in eo quod sumus*. Except for the fact that the verb is in the first person plural, it is the same phrase as the phrase that I have translated consistently throughout as 'in virtue of the fact that it has being (they have being)' [*in eo quod est (sunt)*]. Maintaining consistency in the present passage would lose the sense.

Further, good is of course general, but just is specific, and a species does not descend into all [the members of its genus]. Therefore, some things are just, some another [species of good], [but] all things are good.

Saint Thomas Aquinas: Commentary on Boethius's De Hebdomadibus

Lect. 2. nn. 20-35. (Marietti, 1954)

Boethius's text

10. Diversum est esse et id quod est.

11. Ipsum enim nondum est; at vero id quod est, accepta essendi forma, est atque consistit.

12. Quod est participare aliquo potest, sed ipsum esse nullo modo aliquo participat. Fit enim participatio cum aliquid iam est. Est autem aliquid cum esse susceperit.

13. Id quod est habere aliquid, praeterquam quod ipsum esse, potest; ipsum vero esse nihil aliud praeter se habet admixtum.

14. Diversum est tamen esse aliquid in eo quod est et esse aliquid.

15. Illic enim accidens, hic substantia significatur.

16. Omne quod est participat, eo quod est, esse, ut sit; alio vero participat ut aliquid sit.

17. Ac per hoc id quod est participat eo quod est esse, ut sit; est vero ut participare alio quolibet possit.

18. Omni composito aliud est esse, aliud ipsum est.

19. Omne simplex esse suum et id quod est unum habet (1).

20. Omnis diversitas discors; similitudo vero appetenda est.

10. Existence [*esse*] is different from that which is [*id quod est*].

11. For existence itself not yet is, but that which is, when it has taken on the form of existence [*essendi forma*] is and subsists.

12. That which is [*quod est*] can participate in something, but existence itself in no way participates in anything. For participation comes about when something already is. And something is when it has received existence.

13. That which is can have something besides what itself is, but existence itself cannot have anything mixed with it besides itself.

14. However, it is different [for a thing] to be something in that [it] is [*esse aliquid in eo quod est*] and to be something [*esse aliquid*].

15. For the latter signifies accident, while the former [signifies] substance.

16. Everything that is participates in existence in order to be, and it participates in something else in order to be something.

17. But hence, that which is participates in existence in order to be; and it is, in order to participate in something else.

18. In every composite [thing] existence is one thing, and [the composite thing] itself is another.

19. Every simple thing has its existence and that which [it] is as one.

20. Every diversity repels, but similitude is desirable.

21. Et quod appetit aliud, tale ipsum naturaliter esse ostenditur quale est aliud ipsum quod appetit.

22. Sufficiunt igitur quae praemisimus; a prudente viro interprete rationis suis unumquodque aptabitur argumentis.

St. Thomas's Commentary

20. [...] Sicut ante dictum est, illae propositiones sunt maxime notae quae utuntur terminis quos omnes intelligunt. Ea autem quae in omni intellectu cadunt, sunt maxime communia quae sunt: ens, unum et bonum. Et ideo ponit hic Boetius primo quasdam conceptiones pertinentes ad ens. Secundo quasdam pertinentes ad unum, ex quo sumitur ratio simplicis et compositi, ibi, omni composito etc.. Tertio ponit quasdam conceptiones pertinentes ad bonum, ibi, omnis diversitas discors.

21. Circa ens autem consideratur ipsum esse quasi quiddam commune et indeterminatum: quod quidem dupliciter determinatur; uno modo ex parte subiecti, quod esse habet; alio modo ex parte praedicati, utpote cum dicimus de homine, vel de quacumque alia re, non quidem quod sit simpliciter, sed quod sit aliquid, puta album vel nigrum. Primo ergo ponit conceptiones quae accipiuntur secundum comparisonem esse ad id quod est. Secundo ponit conceptiones quae accipiuntur secundum comparisonem eius quod est esse simpliciter, ad id quod est esse aliquid, ibi, diversum est tamen. Circa primum duo facit. Primo ponit differentiam eius quod est esse, ad id quod est. Secundo manifestat huiusmodi differentiam, ibi, ipsum enim esse nondum est.

21. And what desires something else is shown to be naturally like that which it desires.

22. These preliminaries suffice; the careful reader of the reasoning will adapt each of them to their appropriate arguments.

20. [...] As was said above, those propositions are known the most whose terms everybody understands. Now those that fall into every intellect are the most common [notions], which are [the notions of] being, good, and one. Therefore, Boethius here posits first some conceptions that belong to being. [10-17] Secondly, some [conceptions] that belong to [the notion of] one, from which the concepts [*ratio*] of simple and complex derive, here: 18. In every composite ... [18-19] Thirdly, he posits some conceptions that belong to [the notion of] good, here: 20. Every diversity repels ...[20-22]

21. In connection with being [*ens*] we consider existence itself [*ipsum esse*] as something common and indeterminate, which is determined in two ways. In one way it is determined by the subject that has existence; in the other way it is determined by the predicate, as when we say of a man or of any other thing, not that it is, absolutely, but that it is something, say, white or black. Therefore, first he posits conceptions concerning the comparison of existence [*esse*] to what is [*id quod est*]. [10-13] Secondly he posits conceptions concerning the comparison of that which is to be absolutely speaking [*eius quod est esse simpliciter*] to that which is to be something [*eius quod est esse aliquid*], here: 14. However, it is different ... [14-17] Concerning the first point he does two things. First, he posits the difference between existence [quod est esse] and what is [quod est]. Secondly, he clarifies this difference, here: 11. For existence itself not

22. Dicit ergo primo, quod diversum est esse, et id quod est. Quae quidem diversitas non est hic referenda ad res, de quibus adhuc non loquitur, sed ad ipsas rationes seu intentiones. Aliud autem significamus per hoc quod dicimus esse, et aliud: per hoc quod dicimus id quod est; sicut et aliud significamus cum dicimus currere, et aliud per hoc quod dicitur currens. Nam currere et esse significantur in abstracto, sicut et albedo; sed quod est, idest ens et currens, significantur sicut in concreto, velut album.

23. Deinde cum dicit, ipsum enim esse, manifestat praedictam diversitatem tribus modis: quorum primus est, quia ipsum esse non significatur sicut ipsum subiectum essendi, sicut nec currere significatur sicut subiectum cursus: unde, sicut non possumus dicere quod ipsum currere currat, ita non possumus dicere quod ipsum esse sit: sed sicut id ipsum quod est, significatur sicut subiectum essendi, sic id quod currit significatur sicut subiectum currendi: et ideo sicut possumus dicere de eo quod currit, sive de corrente, quod currat, inquantum subiicitur cursui et participat ipsum; ita possumus dicere quod ens, sive id quod est, sit, inquantum participat actum essendi: et hoc est quod dicit: ipsum esse nondum est, quia non attribuitur sibi esse sicut subiecto essendi; sed id quod est, accepta essendi forma, scilicet suscipiendo ipsum actum essendi, est, atque consistit, idest in seipso subsistit. Non enim ens dicitur proprie et per se, nisi de substantia, cuius est subsistere. Accidentia enim non dicuntur entia quasi ipsa sint, sed inquantum eis subest aliquid, ut postea dicitur.

yet is ...

22. So he says first that existence is different from that which is. But this difference is not to be understood here as one concerning things, about which he is not speaking as yet, but the concepts or intentions [of existence and of that which is] themselves. For we [intend to] signify one thing by saying 'existence' [*esse*], and another by saying 'that which is' [*id quod est*], just as we [intend to] signify one thing when we say 'running', and another when we say 'that which runs'. For running and existence are signified in an abstract manner, just as whiteness; but that which is, that is, being, and what runs, [are signified] in a concrete manner, just as [what is] white.

23. Next, when he says: 11. For existence itself..., he clarifies the above-mentioned diversity in three ways. The first of which is that since existence itself is not signified as the subject of existence, just as [the act of] running is not signified as the subject of running, therefore, just as we cannot say that [the act of] running itself runs, so we cannot say that existence itself is. But just as that which is is signified as the subject of existence, so that which runs is signified as the subject of running. Therefore, just as we can say of that which runs, or the runner, that it runs, insofar as it is subjected to running, so we can say of being, or that which is, that it is, insofar as it participates in the act of existing [inquantum participat actum essendi]. And this is what he says, namely, that existence itself not yet is, for existence is not attributed to it as to the subject of the act of existence, but that which is, when it has taken on the form of existence [essendi forma], namely, by receiving the act of existing itself, is and subsists, that is, subsists in itself. For only a substance, to which subsisting belongs, is said to be properly and per se a being. For accidents are not said to be beings, as if

24 Secundam differentiam ponit ibi, quod est, participare, quae quidem differentia sumitur secundum rationem participationis. Est autem participare quasi partem capere; et ideo quando aliquid particulariter recipit id quod ad alterum pertinet, universaliter dicitur participare illud; sicut homo dicitur participare animal, quia non habet rationem animalis secundum totam communitatem; et eadem ratione socrates participat hominem; similiter etiam subiectum participat accidens, et materia formam, quia forma substantialis vel accidentalis, quae de sui ratione communis est, determinatur ad hoc vel ad illud subiectum; et similiter effectus dicitur participare suam causam, et praecipue quando non adaequat virtutem suae causae; puta, si dicamus quod aer participat lucem solis, quia non recipit eam in ea claritate qua est in sole. Praetermisso autem hoc tertio modo participandi, impossibile est quod secundum duos primos modos ipsum esse participet aliquid. Non enim potest participare aliquid per modum quo materia vel subiectum participat formam vel accidens: quia, ut dictum est, ipsum esse significatur ut quiddam abstractum. Similiter autem nec potest aliquid participare per modum quo particulare participat universale: sic enim etiam ea quae in abstracto dicuntur, participare aliquid possunt, sicut albedo colorem; sed ipsum esse est communissimum: unde ipsum quidem participatur in aliis, non autem participat aliquid aliud. Sed id quod est, sive ens, quamvis sit communissimum, tamen concretive dicitur; et ideo participat ipsum esse, non per modum quo magis commune participatur a minus communi, sed participat ipsum esse per modum quo concretum participat abstractum. Hoc est ergo quod dicit, quod id quod est, scilicet

they themselves existed, but insofar as something is subjected to them, as will be said below.

24. He posits the second difference here: 12. That which is [*quod est*] can participate in something... And this difference is derived from the notion of participation. For to participate is [literally] to take [a] part [est autem participare quasi partem capere]. Therefore, when something takes partially that which belongs to something else universally, the former is said to participate in that [which belongs to the latter]. (1) For example, man is said to participate in [the nature of] animal, for man does not have animal nature in its total community [i.e., not the whole of animality belongs to humans, for some part of it belongs to horses, some to dogs, etc.]; and in the same way, Socrates participates in man [i.e., in human nature, in that not the whole of human nature is in Socrates, but only his humanity, by which he is an individual human]. (2) Similarly, the subject participates in its accident, and matter participates in form, for a substantial or an accidental form, which [considered] in itself is common, is determined to this or to that subject. (3) And similarly the effect is said to participate in its cause, and especially when it does not attain the perfection of the power of its cause; as when we say that the air participates in the light of the Sun, for it does not receive it with the clarity that it has in the Sun. However, omitting this third way of participation (3), it is impossible that existence itself participate in something in the first two ways [(1)-(2)]. For it cannot participate in something in the way matter participates in form or a subject participates in an accident, since, as was said, existence itself is signified as something abstract [whereas only what is signified as concrete, a subject, can participate in this way]. Similarly, it cannot participate in

ens, participare aliquo potest; sed ipsum esse nullo modo participat aliquo: et hoc modo probat ex eo quod supra dictum est, scilicet quod ipsum esse nondum est. Manifestum est enim quod id quod [non] est, non potest aliquo participare: unde consequens est quod participatio conveniat alicui cum iam est. Sed ex hoc aliquid est quod suscipit ipsum esse, sicut dictum est. Unde relinquitur quod id quod est, aliquid possit participare; ipsum autem esse non possit aliquid participare.

25. Tertiam differentiam ponit ibi, id quod est, habere et sumitur ista differentia per admixtionem alicuius extranei. Circa quod considerandum est, quod circa quodcumque abstracte consideratum, hoc habet veritatem quod non habet in se aliquid extraneum, quod scilicet sit praeter essentiam suam, sicut humanitas, et albedo, et quaecumque hoc modo dicuntur. Cuius ratio est, quia humanitas significatur ut quo aliquid est homo, et albedo quo aliquid est album. Non est autem aliquid homo, formaliter loquendo, nisi per id quod ad rationem hominis pertinet; et similiter non est aliquid album formaliter, nisi per id quod pertinet ad rationem albi; et ideo

something in the way in which some particular participates in a universal, for although in this way even those that are predicated in an abstract manner can participate in something, as whiteness [participates in] color, but existence itself is the commonest, so others participate in it, and it does not participate in something else. But that which is, or being, although it is the commonest, nevertheless, it is predicated in a concrete manner; and so it participates existence itself, not in the way in which something less common participates in something more common, but in the way in which something concrete participates in something abstract. So this is what he says, i.e., that which is, namely, being, can participate in something, but existence itself in no way participates in anything. And now he proves this from what has been said above, namely, that existence itself not yet is. For it is clear that what is [not] cannot participate in something, whence it follows that participation belongs only to what already is. But something is because it receives existence itself, as was said. So it remains that what is can participate in something, but existence itself cannot participate in something.

25. He posits the third difference here: That which is can have something ... And this difference is taken from the admixture of something extraneous. In connection with this [point] we have to consider that it is true for anything considered in an abstract manner that it does not have in itself anything external to it, namely, that is outside of its essence, like humanity, whiteness, and whatever else is predicated in this way. And the reason for this is that humanity is signified as that by which something is a man, and whiteness, as that by which something is white. But something is a man only by what belongs to the nature of man, and similarly,

huiusmodi abstracta nihil alienum in se habere possunt. Aliter autem se habet in his quae significantur in concreto. Nam homo significatur ut qui habet humanitatem, et album ut quod habet albedinem. Ex hoc autem quod homo habet humanitatem vel albedinem, non prohibetur habere aliquid aliud, quod non pertinet ad rationem horum, nisi solum quod est oppositum his: et ideo homo et album possunt aliquid aliud habere quam humanitatem vel albedinem. Et haec est ratio quare albedo vel humanitas significantur per modum partis, et non praedicantur de concretis, sicut nec sua pars de suo toto. Quia igitur, sicut dictum est, ipsum esse significatur ut abstractum, id quod est ut concretum; consequens est verum esse quod hic dicitur, quod id quod est, potest aliquid habere, praeterquam quod ipsum est, scilicet praeter suam essentiam; sed ipsum esse nihil habet admixtum praeter suam essentiam.

26. Deinde cum dicit, diversum tamen est esse, ponit conceptiones quae accipiuntur secundum comparisonem eius quod est esse simpliciter, ad id quod est esse aliquid. Et primo ponit utriusque diversitatem; secundo assignat differentias, ibi, illic enim accidens.

27. Circa primum considerandum est, quod ex quo id quod est, potest aliquid habere praeter suam essentiam, necesse est quod in eo consideretur duplex esse. Quia enim forma est principium essendi, necesse est quod secundum quamlibet formam habitam, habens aequaliter esse dicatur. Si ergo forma illa non sit praeter essentiam habentis, sed constituat eius essentiam, ex

something is formally white only by what belongs to the nature of white, and so abstracts of this kind cannot contain in themselves anything alien to them. The case is different, however, with those that are signified in a concrete manner. For man is signified as that which has humanity, and white as that which has whiteness. But that a man has humanity or whiteness does not prevent him from having also something else that does not belong to the nature of these, except what is contrary to these. Therefore a man and a white thing can have something else besides humanity and whiteness. And this is the reason why whiteness or humanity are signified as parts, and are not predicated of their concrete forms, just as no [integral] part is predicated of its whole. Since, therefore, as was said, existence is signified in an abstract manner, and that which is [is signified] in a concrete manner, it follows that it is true what is said here, namely, that what is can have something besides what it is, that is, besides its own essence; but existence itself has nothing mixed with it besides its own essence.

26. Next, when he says that it is different [for a thing] to be ..., he posits the conceptions concerning that which is to be absolutely speaking [quod est esse simpliciter] and that which is to be something [quod est esse aliquid]. And first he posits their diversity, and then he assigns their differences, here: 15. For the latter signifies accident, while the former substance.

27. Concerning the first point we have to consider that since that which is can have something else besides its essence, it is necessary to consider in it two sorts of existence. For, since form is the principle of existing, it is necessary that what has some form is said to be somehow in respect of any of the forms it has. So if the form is not outside of the essence of that which has

eo quod habet talem formam, dicitur habens esse simpliciter, sicut homo ex hoc quod habet animam rationalem. Si vero sit talis forma quae sit extranea ab essentia habentis eam, secundum illam formam non dicitur esse simpliciter, sed esse aliquid: sicut secundum albedinem homo dicitur esse albus: et hoc est quod dicit, quod diversum est esse aliquid, quod non est esse simpliciter, et quod aliquid sit in eo quod est, quod est proprium esse subiecti.

28. Deinde cum dicit, illic enim accidens, ponit tres differentias inter praemissa: quarum prima est quod illic, idest ubi dicitur de re quod sit aliquid, et non sit simpliciter, significatur accidens, quia forma quae facit huiusmodi esse, est praeter essentiam rei; hic autem cum dicitur esse aliquid in eo quod est significatur substantia, quia scilicet forma faciens esse constituit essentiam rei.

29. Secundam differentiam ponit ibi, omne quod est, participat, ubi dicit, quod ad hoc quod aliquid sit simpliciter subiectum, participat ipsum esse; sed ad hoc quod sit aliquid, oportet quod participet alio aliquo; sicut homo ad hoc quod sit albus, participat non solum esse substantiale, sed etiam albedinem.

30. Tertiam differentiam ponit, ibi, ac per hoc, quae quidem accipitur secundum ordinem utriusque, et concluditur ex praemissis. Est autem haec differentia quod primo oportet ut intelligatur aliquid esse simpliciter, et postea quod sit aliquid; et

it, but constitutes its essence, then the thing is said to be absolutely speaking, on account of having this form, just as a man [is said to be absolutely speaking] on account of having a rational soul. But if the form is such that it is external to the essence of the thing having it, then the thing is not said to be absolutely speaking, but [it is said] to be something, as in respect of whiteness a man is said to be white. And this is what he says, namely, that it is different [for something] to be something, which is not to be, absolutely speaking, and for something to be [something] in that it is, which is the proper existence of the subject.

28. Then, when he says: 15. For the latter signifies accident, while the former substance, he posits three differences between the above. The first difference is that by the latter, i.e., whereby it is said of the thing that it is something (and not that it is, absolutely), an accident is signified, for the form that makes this kind of existence is outside of the essence of the thing; but when something is said to be something in that it is, thereby substance is signified, namely, because the form that makes [the thing] be [absolutely] constitutes the essence of the thing.

29. He posits the second difference here: 16. Everything that is participates..., where he says that in order that something should be a subject absolutely speaking, it participates in existence itself; but in order that it should be something, it has to participate in something else. Just as a man in order to be white participates not only in substantial existence, but also in whiteness.

30. He posits the third difference here: 17. But hence, that which is participates in existence in order to be; and it exists in order to participate in something else. And this difference concerns the relationship of the previous two and is inferred from them.

hoc patet ex praemissis. Nam aliquid est simpliciter per hoc quod participat ipsum esse; sed quando iam est, scilicet per participationem ipsius esse, restat ut participet quocumque alio, ad hoc scilicet quod sit aliquid.

31. Deinde cum dicit, omni composito, ponit conceptiones de composito et simplici, quae pertinent ad rationem unius. Est autem considerandum, quod ea quae supra dicta sunt de diversitate ipsius esse et eius quod est, est secundum ipsas intentiones; hic autem ostendit quomodo applicetur ad res. Et primo ostendit hoc in compositis. Secundo in simplicibus, ibi, omne simplex. Est ergo primo considerandum, quod sicut esse et quod est differunt in simplicibus secundum intentiones, ita in compositis differunt realiter: quod quidem manifestum est ex praemissis; dictum est enim supra, quod ipsum esse neque participat aliquid, ut eius ratio constituatur ex multis; neque habet aliquid extraneum admixtum, ut sit in eo compositio accidentis; et ideo ipsum esse non est compositum. Res ergo composita non est suum esse: et ideo dicit, quod in omni composito aliud est esse, et aliud ipsum compositum, quod est participatum ipsum esse.

32. Deinde cum dicit, omne simplex, ostendit qualiter se habet in simplicibus; in quibus est necesse quod ipsum esse et id

This difference is that something first has to be understood to be absolutely speaking, and only afterwards to be something; and this is clear from what was said above. For something is, absolutely speaking, by participating in existence itself; but when it already is, namely, by participating in existence itself, it remains that it will participate in something else, namely, in order that it will be something.

31. Next, when he says: 18. In every composite [thing] existence is one thing, and [the composite] itself is another, Boethius posits conceptions concerning what is composite and what is simple, which belong to the notion of one. And we should consider here that what was said so far about the diversity of existence and what is concerns their concepts themselves; here he shows how this is applied to the things. And first he shows this in connection with composite things. Secondly, in connection with simple things, here: 19. Every simple thing has its existence and that which [it] is as one. So we have to consider first that just as existence and what is are different in simple things in their concepts, so they are really different in the composite things. And this is clear from the previous considerations. For we have said above that existence itself does not participate in something, so that its nature would be composed of several things; nor does it have anything external mixed with it, so that there would be in it some composition of [subject and] accident; and so existence itself is not composite. But then a composite thing is not its own existence. And this is why he says that in every composite thing existence is one thing and the composite thing, which participates in existence itself, is another.

32. Next, when he says, 19. Every simple thing has its existence and that which [it] is as one, he shows how this is in simple

quod est, sit unum et idem realiter. Si enim esset aliud realiter id quod est et ipsum esse, iam non esset simplex, sed compositum. Est tamen considerandum, quod cum simplex dicatur aliquid ex eo quod caret compositione, nihil prohibet aliquid esse secundum quid simplex, inquantum caret aliqua compositione, quod tamen non est omnino simplex. Unde ignis et aqua dicuntur simplicia corpora, inquantum carent compositione quae est ex contrariis, quae invenitur in mixtis; quorum tamen unumquodque est compositum tum ex partibus quantitatis, tum etiam ex forma et materia. Si ergo inveniantur aliquae formae non in materia, unaquaeque earum est quidem simplex quantum ad hoc quod caret materia, et per consequens quantitate, quae est dispositio materiae; quia tamen quaelibet forma est determinativa ipsius esse, nulla earum est ipsum esse, sed est habens esse. Puta, secundum opinionem platonis, ponamus formam immaterialem subsistere, quae sit idea et ratio hominum materialium, et aliam formam quae sit idea et ratio equorum: manifestum erit quod ipsa forma immaterialis subsistens, cum sit quiddam determinatum ad speciem, non est ipsum esse commune, sed participat illud: et nihil differt quantum ad hoc, si ponamus illas formas immateriales altioris gradus quam sint rationes horum sensibilium, ut aristoteles voluit: unaquaeque illarum, inquantum distinguitur ab alia, quaedam specialis forma est participans ipsum esse; et sic nulla earum erit vere simplex.

33. Id autem erit solum vere simplex, quod non participat esse, non quidem inhaerens, sed subsistens. Hoc autem non potest esse nisi unum; quia si ipsum esse nihil aliud habet admixtum praeter id quod est esse, ut dictum est impossibile est id quod est

things, in which it is necessary that existence itself and that which is are really one and the same thing. For if that which is and its existence were really different, then it would not be simple, but composite. But we have to consider that since something is called simple because it lacks composition, nothing prevents something from being simple in some respect, insofar as it lacks some composition, while not being totally simple. Whence fire and water are called simple bodies, insofar as they lack the composition from contraries, which is found in mixed bodies; but each of them are composite both from quantitative parts and even from matter and form. If, therefore, there are some forms which are not in matter, each of them are simple in that they lack matter, and consequently quantity, which is the disposition of matter; but since every form is a determination of existence itself, none of them is existence itself, but something that has existence. For example, if in accordance with Plato's opinion we assume some immaterial form which is the idea and nature of material men to subsist, and another form which is the idea and nature of horses, it will be clear that the subsistent immaterial form itself, as it is something determined to a species, is not the common existence itself, but participates in it. And from this point of view it is irrelevant whether we take those immaterial forms to be of a higher rank than the natures of these sensible things, as Aristotle stated; for every one of them, insofar as it is distinct from the other, is some sort of specific form, participating in existence itself, and so none of them is going to be truly simple.

33. Only that is going to be truly simple that does not participate in existence, [which has] not inherent, but subsistent [existence]. And this can only be one. For if existence itself does not have anything mixed with it besides that which is

ipsum esse, multiplicari per aliquid diversificans: et quia nihil aliud praeter se habet admixtum, consequens est quod nullius accidentis sit susceptivum. Hoc autem simplex unum et sublime est ipse deus.

existence, as was said, it is impossible for that which is existence itself to multiply by something diversifying: and since it does not have anything mixed with it besides itself, it follows that it is susceptible of no accidents. But this simple, one and sublime thing is God Himself.

Saint Anselm's "ontological" argument

On Christian Doctrine, in Four Books, by St. Augustine (354-4340 A.D.)

Book I. Chap. 7. — What all men understand by the term God

7. For when the one supreme God of gods is thought of, even by those who believe that there are other gods, and who call them by that name, and worship them as gods, their thought takes the form of an endeavour to reach the conception of a nature, than which nothing more excellent or more exalted exists. And since men are moved by different kinds of pleasures, partly by those which pertain to the bodily senses, partly by those which pertain to the intellect and soul, those of them who are in bondage to sense think that either the heavens, or what appears to be most brilliant in the heavens, or the universe itself, is God of gods: or if they try to get beyond the universe, they picture to themselves something of dazzling brightness, and think of it vaguely as infinite, or of the most beautiful form conceivable; or they represent it in the form of the human body, if they think that superior to all others. Or if they think that there is no one God supreme above the rest, but that there are many or even innumerable gods of equal rank, still these too they conceive as possessed of shape and form, according to what each man thinks the pattern of excellence. Those, on the other hand, who endeavour by an effort of the intelligence to reach a conception of God, place Him above all visible and bodily natures, and even above all intelligent and spiritual natures that are subject to change. All, however, strive emulously to exalt the excellence of God: nor could any one be found to believe that any being to whom there exists a superior is God. And so all concur in believing that God is that which excels in dignity all other objects.

St. Anselm's Biography

ST. ANSELM was born of a noble family in Aosta, northern Italy, in 1033. Despite the objections of his father, he decided to become a Benedictine monk and in 1059 went to Bec in Normandy, where his countryman Lanfranc was famous as a teacher. He entered the order the following year, succeeded Lanfranc as Prior in 1063, and became Abbot in 1078. It was during this interval that he composed his main works. In 1093 he succeeded Lanfranc as Archbishop of Canterbury and Primate of England, in which office he remained until his death in 1109.

In contrast to Peter Damian, Anselm believed strongly in the utility of the rational methods of the dialecticians for clarifying and defending Christian revelation, and for this reason he is frequently regarded as the father of scholasticism.

Undoubtedly the most provocative of his views was the argument for the existence of God developed in the *Proslogion*. It is presented in the following pages, together with the criticism of Gaunilon, a monk of Marmoutier, and Anselm's reply to the same.

The translations were made from the critical edition of F. S. Schmitt, O.S.B., by A. B. Wolter especially for this volume.

St. Anselm on the Existence of God (Selections from his *Proslogion*)

PRE FACE

Some time ago at the pressing invitation of some brethren I did a small work as a sample of meditation based on faith. The work was written in the person of one seeking to throw light on an area of ignorance by silently reasoning with himself. Reflecting that what I had woven together was really a chain of many arguments, I began to ask myself whether one might not be able to find a single argument, needing no proof beyond itself, which would suffice by itself to link together such conclusions as that God truly exists, that he is the highest good—needing no other but needed for the existence and well-being of all else—and whatever else we believe to be true of the divine being. Diligently and often did I pursue this quest. Sometimes the solution seemed almost at hand; at other times it simply eluded the grasp of my mind. Finally I decided in despair to cease the search for something so impossible to find. But when I tried to put the matter out of mind lest I waste time that might profitably be spent on other matters in such a fruitless quest, it continued to importune me despite my unwillingness and efforts at resistance. And so it was that one day when I was weary of struggling against this obsession the solution I had despaired of finding suddenly appeared amidst the welter of my conflicting thoughts and I eagerly seized the idea I had been so strenuously fending off.

Thinking that, if I put down in writing what I was so happy to find, others too would find pleasure reading it, I did the following little tract which takes up this and some allied matters from the viewpoint of one who tries to bring his mind to contemplate God and seeks to understand what he believes. Neither this nor the earlier treatise seemed to deserve to be called a book or bear their author's name. Still I felt they should not be put out without some title to invite those in whose hands they fell to read them. To each I gave a name, calling the first *An Example of Meditation Based on Faith* and the second *Faith Seeking Understanding*. But when both had been copied frequently under these titles, I was urged to add my own name thereto, especially by Hugh, the reverend archbishop of Lyons and apostolic delegate to France, who commanded me by his apostolic authority to do so. That this might be more fittingly accomplished, I called the earlier work *Monologion* (i.e. a soliloquy) and the present work *Proslogion* (i.e. an allocution).

CHAPTER I

. . . It is not your sublimity, O Lord, I seek to penetrate for my mind is no match for it, but I do desire to understand something of your truth which I believe and love in my heart. For I seek not to understand that I may believe, but I believe that I may understand. For this too I believe: "Unless I believe, I shall not understand!"

CHAPTER II

O Lord, who grants understanding to faith, make me, so far as is good for me, to understand that you exist, as we believe, and that you are what we believe you to be. Now we believe you to be something greater than which we can conceive of nothing. Could it be then that there is no such nature since "the fool says in his heart, 'There is no God' " [Ps. 13:1]? But surely this same fool, when he hears me say this, something than which we can conceive of nothing greater," understands what he hears and what he understands

is in his understanding even if he does not understand it to exist. For it is one thing for something to be in the understanding and quite another to understand that the thing in question exists. When a painter thinks of the work he will make beforehand, he has it in his understanding, but he does not think that what he has yet to make exists. But once he has painted it, he not only has it in his understanding but he understands that what he has made exists. Even the fool then must be convinced that in his understanding at least there is something than which nothing greater can be conceived, for when he hears this, he understands it and whatever is understood is in the understanding. But surely if the thing be such that we cannot conceive of something greater, it does not exist solely in the understanding. For if it were there only, one could also think of it as existing in reality and this is something greater. If the thing than which none greater can be thought were in the mind alone, then this same thing would both be and not be something than which nothing greater can be conceived. But surely this cannot be. Without doubt then there exists both in the understanding and in reality a being greater than which nothing can be conceived.

CHAPTER III

So truly does such a thing exist that it cannot be thought of as not existing. For we can think of something as existing which cannot be thought of as not existing, and such a thing is greater than what can be thought not to be. Wherefore, if the thing than which none greater can be thought could be conceived of as not existing, then this very thing than which none greater can be thought is not a thing than which none greater can be thought. But this is not possible. Hence, something greater than which nothing can be conceived so truly exists that it cannot be conceived not to be.

O Lord, our God, you are this being. So truly do you exist that you cannot even be thought of as nonexistent. And rightly so, for if some mind could think of something better than you, then the creature would rise above the Creator and would judge him, which is absurd. It is possible indeed to think of anything other than you as nonexistent. Of all beings then you alone have existence in the truest and highest sense, for nothing else so truly is or has existence in so great a measure. Why then does the fool "say in his heart, 'There is no God,' " when it is so evident to a reasoning mind that of all things you exist in a supreme degree? Why indeed save that he is stupid and a fool!

CHAPTER IV

But how did he come to say in his heart what he could not think? Or why was it he could not think what he said in his heart? For after all, *to say in one's heart* and *to think* are the same. And if it be true, or rather, since it is true that he thought it because he said it in his heart, and it is also true that he did not say it in his heart because he could not think it, it follows that there is not just one way to think of something or to say it in one's heart. In one sense, we think of something when we think of the word that signifies that something; in another sense, we think of it when we think of the thing itself. In the first sense, then, God can be thought of as not existing, but in the second sense, he cannot be thought of as not existing. For no one who really understands what God is can think that he does not exist, despite the fact that these words may be said in his heart either without any meaning whatsoever or with some peripheral sense. For God is that than which none greater can be thought, and whoever understands this correctly must understand that he so

exists that he cannot even be thought of as nonexistent. Hence, he who understands that God exists in this way cannot think of him as nonexistent.

My thanks to you, good Lord, my thanks to you! For now I understand by your light what I once believed by your grace so that even if I were to refuse to believe that you exist, I should be unable not to understand this to be true.

CHAPTER XV

And so, O Lord, you are not merely that than which nothing greater can be thought; rather you are something greater than can be thought. For it is possible to conceive that there is something of this sort [i.e. something we cannot know exhaustively], and if you are not this being, then something greater than you can be thought — but this cannot be.

Aquinas: THE EXISTENCE OF GOD (ST1, q. 2, aa. 1-3.)

Because the chief aim of sacred doctrine is to teach the knowledge of God, not only as He is in Himself, but also as He is the beginning of things and their last end, and especially of rational creatures, as is clear from what has been already said, therefore, in our endeavor to expound this science, we shall treat: (1) Of God; (2) Of the rational creature's advance towards God; (3) Of Christ, Who as man, is our way to God.

In treating of God there will be a threefold division, for we shall consider: (1) Whatever concerns the Divine Essence; (2) Whatever concerns the distinctions of Persons; (3) Whatever concerns the procession of creatures from Him.

Concerning the Divine Essence, we must consider: (1) Whether God exists? (2) The manner of His existence, or, rather, what is NOT the manner of His existence; (3) Whatever concerns His operations — -namely, His knowledge, will, power.

Concerning the first, there are three points of inquiry:

- (1) Whether the proposition "God exists" is self-evident?
- (2) Whether it is demonstrable?
- (3) Whether God exists?

Whether the existence of God is self-evident?

OBJ 1: It seems that the existence of God is self-evident. Now those things are said to be self-evident to us the knowledge of which is naturally implanted in us, as we can see in regard to first principles. But as Damascene says (De Fide Orth. i, 1,3), "the knowledge of God is naturally implanted in all." Therefore the existence of God is self-evident.

OBJ 2: Further, those things are said to be self-evident which are known as soon as the terms are known, which the Philosopher (1 Poster. iii) says is true of the first principles of demonstration. Thus, when the nature of a whole and of a part is known, it is at once recognized that every whole is greater than its part. But as soon as the signification of the word "God" is understood, it is at once seen that God exists. For by this word is signified that thing than which nothing greater can be conceived. But that which exists actually and mentally is greater than that which exists only mentally. Therefore, since as soon as the word "God" is understood it exists mentally, it also follows that it exists actually. Therefore the proposition "God exists" is self-evident.

OBJ 3: Further, the existence of truth is self-evident. For whoever denies the existence of truth grants that truth does not exist: and, if truth does not exist, then the proposition "Truth does not exist" is true: and if there is anything true, there must be truth. But God is truth itself: "I am the way, the truth, and the life" (Jn. 14:6) Therefore "God exists" is self-evident.

On the contrary, No one can mentally admit the opposite of what is self-evident; as the Philosopher (Metaph. iv, lect. vi) states concerning the first principles of demonstration. But the opposite of the proposition "God is" can be mentally admitted:

"The fool said in his heart, There is no God" (Ps. 52:1). Therefore, that God exists is not self-evident.

I answer that, A thing can be self-evident in either of two ways: on the one hand, self-evident in itself, though not to us; on the other, self-evident in itself, and to us. A proposition is self-evident because the predicate is included in the essence of the subject, as "Man is an animal," for animal is contained in the essence of man. If, therefore the essence of the predicate and subject be known to all, the proposition will be self-evident to all; as is clear with regard to the first principles of demonstration, the terms of which are common things that no one is ignorant of, such as being and non-being, whole and part, and such like. If, however, there are some to whom the essence of the predicate and subject is unknown, the proposition will be self-evident in itself, but not to those who do not know the meaning of the predicate and subject of the proposition. Therefore, it happens, as Boethius says (Hebdom., the title of which is: "Whether all that is, is good"), "that there are some mental concepts self-evident only to the learned, as that incorporeal substances are not in space." Therefore I say that this proposition, "God exists," of itself is self-evident, for the predicate is the same as the subject, because God is His own existence as will be hereafter shown (Q3, A4). Now because we do not know the essence of God, the proposition is not self-evident to us; but needs to be demonstrated by things that are more known to us, though less known in their nature — -namely, by effects.

Reply OBJ 1: To know that God exists in a general and confused way is implanted in us by nature, inasmuch as God is man's beatitude. For man naturally desires happiness, and what is naturally desired by man must be naturally known to him. This, however, is not to know absolutely that God exists; just as to know that someone is approaching is not the same as to know that Peter is approaching, even though it is Peter who is approaching; for many there are who imagine that man's perfect good which is happiness, consists in riches, and others in pleasures, and others in something else.

Reply OBJ 2: Perhaps not everyone who hears this word "God" understands it to signify something than which nothing greater can be thought, seeing that some have believed God to be a body. Yet, granted that everyone understands that by this word "God" is signified something than which nothing greater can be thought, nevertheless, it does not therefore follow that he understands that what the word signifies exists actually, but only that it exists mentally. Nor can it be argued that it actually exists, unless it be admitted that there actually exists something than which nothing greater can be thought; and this precisely is not admitted by those who hold that God does not exist.

Reply OBJ 3: The existence of truth in general is self-evident but the existence of a Primal Truth is not self-evident to us.

Whether it can be demonstrated that God exists?

OBJ 1: It seems that the existence of God cannot be demonstrated. For it is an article of faith that God exists. But what is of faith cannot be demonstrated, because a demonstration produces scientific knowledge; whereas faith is of the unseen (Heb. 11:1). Therefore it cannot be demonstrated that God exists.

OBJ 2: Further, the essence is the middle term of demonstration. But we cannot know in what God's essence consists, but solely in what it does not consist; as Damascene says (De Fide Orth. i, 4). Therefore we cannot demonstrate that God exists.

OBJ 3: Further, if the existence of God were demonstrated, this could only be from His effects. But His effects are not proportionate to Him, since He is infinite and His effects are finite; and between the finite and infinite there is no proportion. Therefore, since a cause cannot be demonstrated by an effect not proportionate to it, it seems that the existence of God cannot be demonstrated.

On the contrary, The Apostle says: "The invisible things of Him are clearly seen, being understood by the things that are made" (Rm. 1:20). But this would not be unless the existence of God could be demonstrated through the things that are made; for the first thing we must know of anything is whether it exists.

I answer that, Demonstration can be made in two ways: One is through the cause, and is called "a priori," and this is to argue from what is prior absolutely. The other is through the effect, and is called a demonstration "a posteriori"; this is to argue from what is prior relatively only to us. When an effect is better known to us than its cause, from the effect we proceed to the knowledge of the cause. And from every effect the existence of its proper cause can be demonstrated, so long as its effects are better known to us; because since every effect depends upon its cause, if the effect exists, the cause must pre-exist. Hence the existence of God, in so far as it is not self-evident to us, can be demonstrated from those of His effects which are known to us.

Reply OBJ 1: The existence of God and other like truths about God, which can be known by natural reason, are not articles of faith, but are preambles to the articles; for faith presupposes natural knowledge, even as grace presupposes nature, and perfection supposes something that can be perfected. Nevertheless, there is nothing to prevent a man, who cannot grasp a proof, accepting, as a matter of faith, something which in itself is capable of being scientifically known and demonstrated.

Reply OBJ 2: When the existence of a cause is demonstrated from an effect, this effect takes the place of the definition of the cause in proof of the cause's existence. This is especially the case in regard to God, because, in order to prove the existence of anything, it is necessary to accept as a middle term the meaning of the word, and not its essence, for the question of its essence follows on the question of its existence. Now the names given to God are derived from His effects; consequently, in demonstrating the existence of God from His effects, we may take for the middle term the meaning of the word "God".

Reply OBJ 3: From effects not proportionate to the cause no perfect knowledge of that cause can be obtained. Yet from every effect the existence of the cause can be clearly demonstrated, and so we can demonstrate the existence of God from His effects; though from them we cannot perfectly know God as He is in His essence.

Whether God exists?

OBJ 1: It seems that God does not exist; because if one of two contraries be infinite, the other would be altogether destroyed. But the word "God" means that He is

infinite goodness. If, therefore, God existed, there would be no evil discoverable; but there is evil in the world. Therefore God does not exist.

OBJ 2: Further, it is superfluous to suppose that what can be accounted for by a few principles has been produced by many. But it seems that everything we see in the world can be accounted for by other principles, supposing God did not exist. For all natural things can be reduced to one principle which is nature; and all voluntary things can be reduced to one principle which is human reason, or will. Therefore there is no need to suppose God's existence.

On the contrary, It is said in the person of God: "I am Who am." (Ex. 3:14)

I answer that, The existence of God can be proved in five ways.

The first and more manifest way is the argument from motion. It is certain, and evident to our senses, that in the world some things are in motion. Now whatever is in motion is put in motion by another, for nothing can be in motion except it is in potentiality to that towards which it is in motion; whereas a thing moves inasmuch as it is in act. For motion is nothing else than the reduction of something from potentiality to actuality. But nothing can be reduced from potentiality to actuality, except by something in a state of actuality. Thus that which is actually hot, as fire, makes wood, which is potentially hot, to be actually hot, and thereby moves and changes it. Now it is not possible that the same thing should be at once in actuality and potentiality in the same respect, but only in different respects. For what is actually hot cannot simultaneously be potentially hot; but it is simultaneously potentially cold. It is therefore impossible that in the same respect and in the same way a thing should be both mover and moved, i.e. that it should move itself. Therefore, whatever is in motion must be put in motion by another. If that by which it is put in motion be itself put in motion, then this also must needs be put in motion by another, and that by another again. But this cannot go on to infinity, because then there would be no first mover, and, consequently, no other mover; seeing that subsequent movers move only inasmuch as they are put in motion by the first mover; as the staff moves only because it is put in motion by the hand. Therefore it is necessary to arrive at a first mover, put in motion by no other; and this everyone understands to be God.

The second way is from the nature of the efficient cause. In the world of sense we find there is an order of efficient causes. There is no case known (neither is it, indeed, possible) in which a thing is found to be the efficient cause of itself; for so it would be prior to itself, which is impossible. Now in efficient causes it is not possible to go on to infinity, because in all efficient causes following in order, the first is the cause of the intermediate cause, and the intermediate is the cause of the ultimate cause, whether the intermediate cause be several, or only one. Now to take away the cause is to take away the effect. Therefore, if there be no first cause among efficient causes, there will be no ultimate, nor any intermediate cause. But if in efficient causes it is possible to go on to infinity, there will be no first efficient cause, neither will there be an ultimate effect, nor any intermediate efficient causes; all of which is plainly false. Therefore it is necessary to admit a first efficient cause, to which everyone gives the name of God.

The third way is taken from possibility and necessity, and runs thus. We find in nature things that are possible to be and not to be, since they are found to be generated,

and to corrupt, and consequently, they are possible to be and not to be. But it is impossible for these always to exist, for that which is possible not to be at some time is not. Therefore, if everything is possible not to be, then at one time there could have been nothing in existence. Now if this were true, even now there would be nothing in existence, because that which does not exist only begins to exist by something already existing. Therefore, if at one time nothing was in existence, it would have been impossible for anything to have begun to exist; and thus even now nothing would be in existence — -which is absurd. Therefore, not all beings are merely possible, but there must exist something the existence of which is necessary. But every necessary thing either has its necessity caused by another, or not. Now it is impossible to go on to infinity in necessary things which have their necessity caused by another, as has been already proved in regard to efficient causes. Therefore we cannot but postulate the existence of some being having of itself its own necessity, and not receiving it from another, but rather causing in others their necessity. This all men speak of as God.

The fourth way is taken from the gradation to be found in things. Among beings there are some more and some less good, true, noble and the like. But "more" and "less" are predicated of different things, according as they resemble in their different ways something which is the maximum, as a thing is said to be hotter according as it more nearly resembles that which is hottest; so that there is something which is truest, something best, something noblest and, consequently, something which is uttermost being; for those things that are greatest in truth are greatest in being, as it is written in *Metaph. ii*. Now the maximum in any genus is the cause of all in that genus; as fire, which is the maximum heat, is the cause of all hot things. Therefore there must also be something which is to all beings the cause of their being, goodness, and every other perfection; and this we call God.

The fifth way is taken from the governance of the world. We see that things which lack intelligence, such as natural bodies, act for an end, and this is evident from their acting always, or nearly always, in the same way, so as to obtain the best result. Hence it is plain that not fortuitously, but designedly, do they achieve their end. Now whatever lacks intelligence cannot move towards an end, unless it be directed by some being endowed with knowledge and intelligence; as the arrow is shot to its mark by the archer. Therefore some intelligent being exists by whom all natural things are directed to their end; and this being we call God.

Reply OBJ 1: As Augustine says (*Enchiridion xi*): "Since God is the highest good, He would not allow any evil to exist in His works, unless His omnipotence and goodness were such as to bring good even out of evil." This is part of the infinite goodness of God, that He should allow evil to exist, and out of it produce good.

Reply OBJ 2: Since nature works for a determinate end under the direction of a higher agent, whatever is done by nature must needs be traced back to God, as to its first cause. So also whatever is done voluntarily must also be traced back to some higher cause other than human reason or will, since these can change or fail; for all things that are changeable and capable of defect must be traced back to an immovable and self-necessary first principle, as was shown in the body of the Article.

Gyula Klima

Yale Lectures

PLATO ON IMMORTALITY IN HIS 'PHAEDO'

In this lecture I wish to lay out carefully the logical structure of Plato's arguments in his *Phaedo*, to lay bare, as it were, the logical skeleton of this dialectical organism, so that we can have a better understanding what, how and to what extent supports its principal conclusion: the immortality of the soul.

The need to support this conclusion arises in the context of the dialogue from Socrates's paradoxically sounding remark that a true philosopher should be more than willing to die. For a true philosopher, as he later explains, spends after all his whole life preparing, indeed, striving for death, the dissolution of the soul from the body.

Nothing is easier, commit suicide! -- might sound the immediate reaction to such a view.

But this is forbidden by divine command, for we are put to this life by the gods, our masters, from whom we are not allowed to run away -- sounds the answer of Socrates.

But if the gods are our good masters, only a fool would want to escape from them, and a philosopher should resent dying -- objects Simmias.

In response to this objection, Socrates justifies the philosopher's wish to die with the hope that after death the soul migrates to a far better place.

This hope is reinforced by considering in how many ways the body is a bad place for the soul.

First of all,

(1) the body hinders the cognition of the soul a major complaint of the philosopher who is wishing, above all, to know.

That the body hinders the cognition of the soul is so

(a) because the body contributes to cognition only by the senses, which are "inaccurate witnesses".

(b) because the soul can discover true existence only in thought.

(c) because the ideas, the true essences of things, are the objects of thought, and not of perception.

(d) because thinking is actually hindered by the operations of the body.

Again, that the body is a bad place for the soul is also shown by the fact that

(2) the body is the source of all base desires, which are the cause of all kinds of injustice among people,

(a) because of its requirement of food and

(b) because of its passions: wants, lusts, fears, fancies and the rest, which are the commonest motives for bad actions.

So the real purification of the soul from all these bodily taints is nothing but her separation from the body altogether.

But already before the actual separation of these two, namely before death, the true philosopher is always occupied in the practice of dying, of severing the ties between body and soul.

Indeed, it is only through this practice that true virtue is attainable, since the common virtues of non-philosophers, not stemming from this practice, are not real virtues, and are, in a sense, contradictory.

Because, for example,

- (a) non-philosophers are courageous only out of fear from a greater evil, and
- (b) they are temperate only out of intemperance, for fear of losing other pleasures, but one can never have true virtue on the basis of having its opposite vice.

So as a consequence, it is only true philosophers who are really virtuous, and only they are the chosen few who will be capable of enjoying the pure intellectual pleasures of the soul, when it is finally released from the body.

But all this presupposes that the soul does not perish with death, as the body does.

Socrates sets about developing his arguments for this conclusion by referring to an “ancient doctrine”, which holds that the souls after death “go from here to another world, wherefrom they return hither to be born again from the dead”.

The first argument is designed to give rational support to this ancient doctrine, and runs as follows:

(P1) If the souls are born from the dead, then they must have existed in another world before their birth in this world

For a soul can come back from the dead only if it existed before birth. But before birth it did not exist in this world. So it must have existed in another.

(P2) Opposites are generated out of opposites

For whatever becomes something was not what it becomes, and whatever it becomes it was not before.

(P3) The opposite of living is being dead

Therefore, by (P2) and (P3), the living is generated from the dead. And so the living soul is generated from the dead. From which, by (P1), it follows that the souls must exist in another world before their birth in this world.

The trouble with this argument is the insufficient division provided by (P3). For by admitting that the opposite of living is being dead, and hence conceding that the living soul is generated from the dead, one excludes the possibility of the living soul’s simply coming into existence when it is born in the body. Indeed, the principle that opposites are generated from opposites holds only with presupposing the permanent existence of some subject of these opposites. In the case of simple generation, however, that is, when something comes into existence that did not exist before, this principle does not hold, unless we understand “opposites” broadly, including contradictory opposites. But then, the opposite of “living” is “not living” and not “being dead”, with the assumption of the dead existing in some other world. However, that the soul is not living before being born,

of course, does not imply that it exists in a different world, namely, the world of the dead, for it may simply not exist at all.

But not paying attention to this possible objection, Socrates proceeds to develop two auxiliary arguments. The first relies on the supposition of the completeness of nature, namely that

(AUX1) to each process there should correspond an opposite process, and hence, to dying the return to life.

Again, one may object that even if we accept the perhaps not self-evident principle of the completeness of nature, the opposite of dying need not be return to life, but may be simply being born, i.e., coming to exist.

Socrates's second auxiliary argument sounds as follows:

(AUX2) If the process of dying were not compensated by the opposite process of the return to life, then the whole process would end with all souls being dead.

The first problem with this argument is that there is nothing really impossible in the conclusion that the process of generation and corruption sometime will come to an end, so this conclusion need not force us to admit that to death there should correspond an opposite process of rebirth of the same souls in different bodies. But further, this conclusion follows, of course, only if there is a finite number of souls (which is after all plausible to suppose) and if no new souls come into existence, which, however, is a doubtful and unproven assumption.

So the above arguments all are based on the assumption that dying and being born are just transitions of the soul from one region of existents into another, without her perishing and coming to existence. Hence the need arises to prove this, namely that death is only the separation of the soul from the body, without her perishing, and that birth is just the union of the soul with the body, without her coming to be.

The first argument to prove this conclusion is drawn from the theory of recollection:

(R1) If learning in this life is recollecting what the soul knew before this life, then the soul existed before this life.

(R2) But learning in this life is recollecting what the soul knew before this life.

So, the soul existed before this life.

But, of course, further proof is needed to show that learning is recollection.

After a brief reminder of "the experimental proof" in Meno, Socrates develops another, independent argument.

(P1) What someone recollects he must have known at some previous time.

(P2) If someone, perceiving or recognizing and thus knowing something, knows also another, then he is said to recollect this other thing (being reminded, as it were, of it by the first one).

To introduce the third premise of his argument, Socrates puts forward some assumptions, which we are supposed to accept without further proof:

(Ass.1.) There are ideas.

(Ass.2.) Ideas are not the particulars sharing in them.

(Ass.3.) The particulars fall short of the ideas in perfection.

On the basis of these assumptions we may reasonably accept the third premise, namely that

(P3) when we recognize things as being more or less such and such, we also know the idea, which is perfectly such and such.

For we could not recognize something as being more or less such and such unless we knew that what is perfectly such and such, and that is the idea of being such and such, the existence and properties of which we conceded with the previous assumptions.

So, by (P2) and (P3), when we recognize things as being more or less such and such, we recollect the idea that is perfectly such and such. Whence, by (P1), we must have known the ideas at a previous time.

But then to recognize anything as such and such involves recollecting the corresponding idea in any sense experience. So we must have known the ideas before any sense experience. But it is since the time of our birth that we have sense experiences. So we must have known the ideas before our birth. Hence, either we have this knowledge also at birth and continue to have it during our life, or we lose it at birth, and need to be reminded of it. But experience shows that we do not have this knowledge at birth and afterwards. So we lost this knowledge at our birth, and we recover it in our present life by being reminded of it by the senses. But the recovering of lost knowledge is called recollection. So our learning from sense experience, which reminds us of our knowledge lost at our birth, is duly called recollection. Q.e.d.

The real strength of this argument is its addressing the problem of how our intellectual concepts function not only in abstract thinking, but even in sense experience. The point in (P3) is the valid observation that in order to recognize anything in sense experience as being such and such, we have to have a concept by which we can recognize the thing as such. (For example, an Amazonian Indian, living in the jungle, would probably not recognize, say, a credit card as such, while we probably would not recognize the edible and poisonous plants in his environment, which he easily recognizes as such.)

The problem with the argument, however, is its reliance on the doctrine of the ideas, presenting it as the only possible account for our having general concepts. For there may very well be also other ways of acquiring or generating our general concepts, indeed, also in this life, for example by abstraction, as we shall see this in Aristotle's account of the matter. But then our prenatal acquaintance with the ideas is not necessarily required for explaining how we can have general concepts in this life, and so how we can recognize things as falling under this or that general concept. Indeed, the claim that our general concepts are involved in any sense experience, and that hence we have to have them from our birth may well be simply false. Children need to be taught to recognize things as being such and such, and if we don't have to presuppose their prenatal acquaintance with ideas, then their learning may involve genuine concept acquisition, rather than mere recollection.

As a corollary, however, it does follow from the above conclusion, according to which learning is recollection of prenatal knowledge, that our souls existed before our birth. For from the previous argument it appears that our souls could have acquired knowledge of the ideas, that is, our universal concepts, only before birth.

Unless objects Simmias they are given to us at birth.

But since in the previous argument it was also conceded that they are lost at birth, the objection is dismissed as frivolous.

A further worry emerges, however, from the consideration that the previous argument proved only the pre-existence of the soul before birth. However, what we were originally concerned with was its enduring existence after death! How do we know that the soul, even if it existed before birth, will not cease to exist with death?

But, as Socrates points out immediately, the previous argument, relying on the doctrine of recollection, together with the first argument, which showed that the living are born from the dead, imply the required conclusion, the immortality of the soul.

For if a given soul should exist before the birth of a given man, so that he will be able to recollect in his lifetime, and this soul is born from the dead, then it must have been the soul of someone who had died before, and so it must have survived the death of that person. And this, we may suppose, is so in any arbitrarily chosen case. Whence, the soul, generally speaking, should survive the death of the human person whose soul it is, that is to say, it is immortal.

But, in case anybody is still daunted by the childish fear that the soul gets somehow scattered after death, like fume blown away in the wind, Socrates supplies a further argument to show that the soul is simply not of such a nature as to be easily scattered by the blow of death.

- (1) What is uncompounded is incorruptible.
- (2) Ideas are uncompounded, unchanging and incorruptible
- (3) Unchanging things are invisible and can be perceived only with the mind
- (4) There are two sorts of things, namely visible and invisible
- (5) The soul is invisible

So the soul is more like the unchanging ideas, than the changing body, whence it is simple and incorruptible.

The main problem with this argument is again its reliance on the doctrine of ideas. However, with the assumption of the existence of the unchanging heaven of ideas, it is easy to see that the soul, being more akin to the eternal ideas than to corruptible bodies is likely to be incorruptible itself.

An important new element in this argument in contrast with the previous ones is its explicitly aiming at probability, rather than demonstrative certainty. Indeed, this stage of the dialogue seems to pave the way to introducing the kind of attitude to be taken, according to Plato (actually worded by Simmias), towards this type of investigation: even if one cannot attain geometrical certainty in the question, one should rationally weigh the

probabilities of the possible opinions and choose the more probable and more honorable opinion. This impression is reinforced also by the argument immediately following, which uses a form of reasoning later “canonized” in Aristotelian dialectics as “*locus a minori*”.

The argument runs as follows:

- (1) The body is less likely to remain after death than the soul.
- (2) But sometimes human bodies are preserved for centuries after death, as is seen in the case of mummies.

So the soul is much more likely to remain.

The argument, as it stands, is of course, not demonstrative, for it may very well be the case that despite appearances to the contrary the soul is in fact even more corruptible than the body. What gives this argument its force, however, is the dialectical maxim, tacitly assumed in the dialogue, namely that if a property belongs to something which is less likely to have it than something else, then this latter will have it too. It is this maxim, starting from the assumption of a lesser likelihood (*a minori apparentia*), that joins the phenomenon of the endurance of dead bodies to the conclusion of the incorruptibility of the soul. But it requires that the soul indeed appear to be more likely to endure than the body, so Socrates provides further confirmation of this likelihood by making probable guesses about how the relationship between individual bodies and souls influences the soul’s qualities and individual fate. Since all these considerations point toward the conclusion that the more the soul immerses in the body the more deteriorated it becomes, it appears to be more likely that the soul is a nobler kind of entity than the body is, whence, since incorruptibility is nobler than corruptibility, it is less likely to decay after death than the body.

But, as I said, these arguments do not attain, and indeed, do not aim to attain demonstrative certainty. Plato is keen to make this obvious, and is evidently eager to show the right attitude he expects the reader to take towards them. Characteristically, he makes Simmias, who is about to raise a serious objection, formulate explicitly what one should think about these and other arguments in this matter:

“I feel myself (and I dare say that you have the same feeling) how hard or rather impossible is the attainment of certainty about questions such as these in the present life. And yet I should deem him a coward who did not prove what is said about them to the uttermost, or whose heart failed him before he had examined them on every side. For he should persevere until he has achieved one of two things: either he should discover, or be taught the truth about them; or, if this be impossible, I would have him take the best and most irrefragable of human theories, and let this be the raft upon which he sails through life not without risk, as I admit, if he cannot find some word of God which will more surely and safely carry him.”

But until one gets this divine word, one cannot but use one’s reason and take into account the objections that can be raised against the previous arguments. The first of these is formulated by Simmias as follows:

(Obj.1. Simm) That the soul is invisible does not prove sufficiently that it is of the same unchangeable nature as the ideas, for there are other invisible things, like the harmony of

the lyre, which are dependent for their existence on their material subject, and hence are even more corruptible than those.

I think the most notable thing about this objection is its “modernity”. Indeed, it most clearly expresses a view about the nature of the human soul which one frequently meets in modern discussions. According to this conception what the name “soul” denotes is not some spiritual substance inhabiting the body, and thereby imparting life to it, but rather it is the specific organic structure of the living body, not having its own substantiality, but being present, when the body is so structured and ceasing to be present, when this bodily structure ceases to be.

The other objection, formulated by Cebes, argues that even if the soul has its own substantiality, this may not be enough for its immortality.

(Obj.2. Cebes) For even if the soul is of such nature that it is capable of outwearing the body which it actually inhabits, nothing guarantees that it will outwear all bodies that it will subsequently assume.

In response to the first objection Socrates first points out that the assumption that the soul is a kind of harmony contradicts the previously accepted theory of recollection:

(RESP1)

(1) If learning is recollection, then the soul pre-exists the body.

(2) If the soul is harmony, then it cannot pre-exist the body.

(3) But learning is recollection

So the soul cannot be harmony.

The only problem with this argument is its reliance on the theory of recollection. But two further responses intend to support the same conclusion on independent grounds.

Socrates’s second response to the harmony-theory runs as follows:

(RESP2)

(1) The soul is harmony

But

(2) Something that is harmony can be more or less harmonious

However,

(3) nothing that is a soul can be more or less a soul

And so

(4) no soul is more or less harmonious than the other.

But

(5) a more harmonious soul would be a good soul, while a less harmonious soul would be an evil soul

Whence it follows that all souls are equally good or evil, which is false. So, having concluded to an evident falsity, we have to drop the assumption from which it followed, namely, that the soul is harmony.

This argument, unfortunately, simply does not conclude. For from the assumption that the soul is harmony and that a harmony can be more or less harmonious it simply does not follow that a more or less harmonious soul would be more or less a soul. So premise (3) (namely, that nothing that is a soul can be more or less a soul) does not exclude the possibility of there being souls that are more or less harmonious harmonies, unless we suppose that being a soul is just being a specific degree of harmony. But this is precisely what the upholders of the harmony theory would deny, when they claim that a more harmonious soul is a good soul and a less harmonious one is an evil one. So this argument does not refute the harmony theory.

Socrates's third response to the harmony-objection, put in a nutshell, is the following:

- (1) Harmony does not rule its subject
- (2) The soul does rule its subject, the body

So, the soul is not harmony.

The premise that the soul rules the body is evident from the everyday human experience that the soul can resist the desires and passions of the body, so it is the soul that will determine what the body should and will do, and not conversely.

However, despite the fact that the argument is valid, the justification of its dubious premise may not be entirely convincing. First of all, it is an equally common human experience that sometimes the soul yields to the passions of the body and *nolens volens* does what the body forces it to do.

To this, of course, one may easily answer that sometimes the soul is merely a weak ruler, but is, nevertheless, a ruler, which is shown by its mere capacity to rule, which would be out of the question, if the soul were just a harmony, a certain structural composition of the body.

On the other hand, one may question also this latter claim, and ask whether the above-mentioned human experience does indeed show the soul's capacity to rule, and whether this experience cannot be explained also on the basis of the assumption that the soul is after all but a certain kind of bodily structure. For one might as well say that when one resists bodily urges and desires all that happens is that certain urgent signals coming from one part of the body are simply suppressed by other bodily signals, and one need not suppose the activity of a spiritual substance residing in the body to explain what happens. For example, the heroism of people on a hunger-strike might be explained by the materialist by referring to nerve impulses coming from the cortex, which are responsible for these people's having such and such objectives, and which may be strong enough to suppress the nerve impulses coming from the vegetative nervous system. Since in such an explanation there need not be any reference to a spiritual soul governing the activities of the body, the above argument will not convince those who believe that the soul is just a certain specific bodily organization and what we describe as the activities of the soul are but certain activities of the body thus organized.

All these objections to Socrates's responses, however, do not prove that the harmony-theory is right. And in fact, the theory faces tremendous difficulties by its being committed to explaining human behavior exclusively in terms of bodily states.

This is precisely one of the topics taken up by Socrates introducing his final argument for the immortality of the soul, in answer to Cebes's objection.

After stating that this objection requires a general inquiry into the nature of causation and causal explanation, Socrates begins his discussion by telling about his dissatisfaction with the explanations of natural phenomena exclusively in terms of what Aristotle would call material and effective causes. Since, however, such explanations do not tell us anything about what things are for, to what end they work in the way they do, these explanations are certainly insufficient in the case of goal-directed phenomena, such as human actions and their means. But if also the whole natural world is goal-directed, obeying a divine ordination and government, then also natural phenomena are in need of teleological explanations, making clear how they fit into the great divine plan, directing everything to its proper end. It was precisely this idea that, according to the dialogue, attracted Socrates to the study of the works of Anaxagoras, who, however, beyond positing the world-governing Mind as the ultimate cause of all things, failed to give this type of explanations of natural phenomena. As a consequence, himself being unable to come up with the desired explanations, Socrates turned towards a simple, indeed, in his own description, simple-minded solution: the positing of ideas, and with this assumption giving explanations of phenomena in terms of what Aristotle would call their formal causes.

This type of explanation may be expressed schematically as follows:

If several things have a property F, then they have F because they share in the idea of F-ness itself

Even though this type of explanation in itself may not be very illuminating, nevertheless, if we couple it with the possible answers that one may give to the question: "what is F-ness?", then one can see how on the basis of such an explanation one may judge the validity of certain generalizations.

For example: on the basis of the above-mentioned principle, human beings are all humans in virtue of sharing in humanity. But supposing that humanity is nothing else but rationality coupled with animality, i.e., being human is nothing but being a rational animal, we can see that in virtue of being humans all of us are endowed with reason, even if this does not always and equally manifests itself in each and every case. The point in the above explanation, however, is that the individuals of the same species, despite all their individual variations, are in fact subject to certain valid generalizations, which renders the formulation of true universal claims about them possible.

To see that this is not an altogether trivial matter, consider an accidental collection of things, say the solid bodies in this classroom. Of these it is true that they all are extended. However, this is not true of them in virtue of their being in this classroom, but in virtue of their being bodies. So even if it happened to be so that in this classroom there were only extended things and there were no extended things outside this classroom, it would not necessarily be true that whatever is in this classroom is extended, while it is true that every body, whether in this classroom or not, is extended of necessity. And this,

according to the explanation given above, is due to their sharing in the same idea of corporeity.

However, what makes this or that particular body subject to this necessary generalization is its own corporeity, its similitude to or share in the idea of corporeity. It is these and the like individualized properties that are responsible for the behavior of this or that particular individual, however, it is their being individual similitudes of the same universal idea that accounts for the universal traits of the behavior of all the individuals that have them.

Now whether or not we have any misgivings about the doctrine of ideas as being the only possible basis for valid necessary generalizations, the next point Socrates makes is certainly acceptable:

No individualized properties can change into their opposites.

Indeed, change occurs by a thing's exchanging one of its individualized properties for an opposite property, but it is never the property itself that changes into the opposite property. When a thing cools down, it exchanges its hotness for coldness, but it is not its hotness that changes into coldness, for its merely changing into its opposite would involve its remaining what it was: hotness. But nothing, while remaining hotness, can become coldness, even though what is hot can become cold remaining what it was, though definitely not remaining what it was like. What is hotness can become for example more or less intensive, but it can never lose its intensity so much as to turn into coldness while remaining what it was: hotness.

However, sometimes it is not only properties argues Socrates further that cannot change into their opposites, but also the things that bear these properties. Some things are so strongly stuck with some of their properties that they cannot, while remaining what they are and so remaining in existence, exchange them for their opposites.

Again, using later, scholastic, terminology we can say that Plato here introduces a distinction between essential and accidental properties:

(1) A property F is essential to a subject x if and only if x cannot lose F without ceasing to be what it is, i.e., ceasing to exist

A further postulate introduced by Socrates states a relationship between causation and essential properties:

(2) What is the cause of a property in other things has this property essentially

Now having all the general postulates of Socrates's theory at our disposal, we can add one particular premise regarding the soul, namely that

(3) the soul is the cause of life in any living thing

whence, by (2), it follows that the soul has life essentially. But then, by (1) the soul cannot lose life without ceasing to be what it is, namely, a soul.

This conclusion, however, is not what Plato intends to draw, namely that whatever is a soul cannot lose life altogether, unconditionally. For the above conclusion says only that whatever is a soul cannot lose life as long as it is a soul, which, however, leaves open the possibility that it loses life by ceasing to be a soul, that is, simply ceasing to be, just as

fire can lose heat, by getting extinguished, i.e., ceasing to be fire, which is for it just ceasing to be.

On the other hand, one might try to save Plato's reasoning, by saying that since the soul's life is nothing but its existence, what the argument concludes to is the impossibility of the soul's emitting existence, which means that it will never cease to be, and hence will never cease to be what it is, namely a soul.

However, unfortunately, this defense will not do. For what the argument concludes to even with this addition is that the soul cannot lose its existence, without ceasing to be a soul. So all we can conclude to from these premises is that these three stand or fall together: (1) the soul's being a soul, (2) its being alive and (3) its being in existence. But concerning none of these can we conclude absolutely that it will belong always to what actually is a soul. What could prove this latter, would have to be some argument to the effect that what is actually a soul can never cease to be a soul, because being a soul is such a strong nature that simply cannot be destroyed. But this would only take us back to the dialogue's previous considerations about the divine nature of the soul, and so we seem to have made no progress.

But is this really so? Haven't we learned something fundamental about the soul and the possible considerations concerning its nature? Does the mere fact that Plato's arguments in this dialogue do not provide us with unshakable proofs of its intended conclusion render them worthless sophisms, not deserving any further attention? Does the fact that these arguments do not compel us to believe in the immortality of the soul mean that they have not provided us with reasons to choose to believe?

Unless, despite Plato's explicit warning, his readers have become misologists, giving up the reasoning game, and hence a part of their humanity altogether, the Phaedo's arguments will not cease to be a source of inspiration to anyone who wishes to think seriously about a subject that no human being can avoid thinking about sometime in this life: whether there is anything afterwards?

ISAGOGE

Porphyry's Introduction to Aristotle's Categories enjoyed immense popularity over several centuries. Its popularity, however, was not due to its intrinsic merits, its brevity, clarity and simplicity alone. For besides offering an ideal start-up for a course in Aristotelian logic, it also offered its commentators an opportunity to indulge in a discussion of one of the most intriguing of all metaphysical problems, the problem of universals. As John of Salisbury complained in his *Metalogicon* in the 12th century, teachers of logic of his time did not treat Porphyry's booklet properly, as an introduction, but, despite the author's expressed intention, they got involved in endless debates over metaphysical considerations, thereby "imposing an unbearable burden on the tender shoulders of their students".

But this indulgence, and sometimes over-indulgence in these debates, may perhaps be justified by more than sheer intellectual curiosity, or even intellectual pride, namely, by the intrinsic needs of a commentary. For a commentator of a text should in the beginning tell what the subject matter of his text is, what the text commented on is about. In the case of Porphyry's text, the answer seems to be simple. It's about universals. All right, but what on earth are universals? ask the students immediately. And at this point, of course, a hell of further questions breaks loose.

Porphyry himself tries to get around these questions by simply listing them, and putting them aside for a "higher" investigation. His approach, in fact, is very much like that of some contemporary Oxford philosophers in that he just tries to describe what ordinary language usage tells us about universals, some simple facts on which everyone who speaks the language, indeed, any language, can agree, regardless of their metaphysical preferences. (Well, the big difference between him and our Oxford philosophers is that he puts forward these simple facts as preliminary to metaphysical considerations, not instead of them, as the latter would.) So, he describes a universal as something predicable of many things, which differ either specifically, in which case the universal is a genus, or numerically, in which case the universal is a species, provided they are predicable of something as an answer to the question: what is this? If it does not answer this question, then a universal is either still predicable essentially, in which case it is a specific difference, or it is predicable accidentally, but convertibly with a species, in which case it is a proprium, or simply accidentally, so that it may be true or not true of a subject without the perishing of the subject, in which case it is an accident.

So far, so good. But do these descriptions of the various kinds of universals give an answer to our commentators' question: what is this book about, what are the things thus described?

Well, all these descriptions involve the notion of predicability of many things, so no wonder in Latin Porphyry's work was often referred to as *De Praedicabilibus*, that is, *On the Predicables*. So this book, we can say, is about things that are predicable of many things. But, again, none of these descriptions tells us just what are the things that are predicable of many things. So Porphyry's roundabout approach could help our commentators only to be a little bit more specific when addressing the question of what his book is about, in that his descriptions told them that it's about things that are

predicable of many, but did not help them much in avoiding the further questions stemming from his descriptions, concerning the nature of universals.

Now, to begin with, the obvious candidates for being the kind of things that are predicable of many things seem to be words. It is after all the word “man” that we can predicate of Socrates and Plato, and the word “animal” that we can predicate of donkeys and monkeys.

On the other hand, a word, whether written or spoken, seems to have nothing in itself that makes it predicable of many things, apart from what their users mean by them. A spatial series of ink-marks and a temporal series of sound-waves seem to be a word, indeed, the same word, only insofar as they express a concept, indeed, the same concept that speakers of a language associate with these sound-waves and with those ink-marks. In fact, users of different languages may have the same concept too, while they associate it with different sounds and different marks. What is more, even users of the same language may associate the same concept with different words, that is, with synonyms, or different concepts with the same word, in the case of an equivocal word. And so, in general, whether a word is predicable of this or that depends on the concept generally associated with it by the users of this word. But then, whether a word is predicable of many things or not depends on the kind of concept we associate with that word, namely whether the concept itself is universal or particular. So it seems that words are universal only insofar as they are associated with universal concepts, and so it is rather concepts that are primarily universal, and words are universal only on account of the universality of their concepts.

But then, if universals are primarily our concepts, namely acts of our minds by which we conceive of things, the question immediately arises how we can have these universal concepts, if the things from which we could acquire them, namely the things we perceive, are all particular?

Well, as we know, Plato’s answer to this question was that it is not just particular, perceivable things from which we get our concepts. There are universal things, the ideas, and it is our direct, prenatal acquaintance with these that accounts for our universal concepts, while our experience of sensible particulars only helps us recover these universal concepts in this life, reminding us by their common features of the universal things they imperfectly imitate by these. So, from Plato’s view we should conclude that universals primarily are these universal things, the ideas, for it is on account of their existence that our universal concepts exist, which then account further for our universal words.

Plato’s answer, his theory of ideas and recollection, however, is flawed for several reasons, many of which were already spelled out by Plato himself in his *Parmenides*, such as the famous Third Man argument, which actually derives a contradiction from Plato’s theory. From an Aristotelian point of view, however, the following consideration is of particular importance.

What do we mean by saying that Plato’s ideas are universal, as opposed to the particulars, which participate in them? Well, what we mean by this is that they have just those properties which are common to several particulars from a certain aspect, but nothing else. For example, the idea of justice is only what belongs to justice insofar as justice,

whereas just people and just acts have many other properties besides their justice, and so they can change with respect to those other properties, and even with respect to their justice. So a man or an act that is just here and now may be unjust elsewhere and at another time. For example giving an A on a good paper is a just act here and now, but in a reverse grading system, in which A is the worst grade, the same act would be unjust. But justice itself can never and nowhere cease to be justice and whatever belongs to justice insofar as justice, whence the idea of justice is unchangeable, and so eternal says Plato.

But then, by the same token, the idea of triangle, for example, has to have only those properties that are common to all triangles, i.e., what belongs to a triangle insofar as a triangle. So, the idea of triangle should be triangular and also trilateral, for a triangle as such should be triangular and trilateral. And so it has to have three sides, for whatever is trilateral has to have three sides. And of these three sides either at least two have to be equal or all three must be unequal. So the idea of triangle has to be either isosceles or scalene, for any triangle, insofar as a triangle has to be either isosceles (i.e. having a pair of equal sides) or scalene (i.e. having no equal sides).

On the other hand, the idea of triangle cannot be scalene, for this would mean that a triangle insofar as a triangle would be scalene, whence all triangles would have to be scalene, and so no isosceles would be a triangle, which is false. And, by the same token, the idea of triangle cannot be isosceles either, for then whatever is a triangle should be isosceles, which is false again. But then the idea of triangle should be either isosceles or scalene and neither isosceles nor scalene, which is a contradiction. So nothing can be a universal triangle in the way just described, namely having all and only those properties that all particular triangles have in common, that is, what any triangle insofar as a triangle has.

But then, in general, no idea can be a universal thing in this way, namely having only those properties of their particulars which are common to them all, insofar as they all participate in this idea. For any such idea determines a range of further properties, some of which have to belong to anything that has the property exemplified by the idea, and so to the idea too; but none of these properties is such that it has to belong to everything having the property exemplified by the idea, so none of these can belong to the idea.

So, again, whatever is a man has to have some height, so the idea of man, being the perfect exemplification of the property "man", has to have some height too. But no particular height is such that what is a man has to have that height, for then every man should have the same height, i.e., they should all be equally tall, which is false. But then the idea of man cannot have any particular height, since it can have only those properties that belong equally to all humans, insofar as humans. So we arrive again at the contradiction that the idea of man has to have some height, but, at the same time, it can have no height.

Now Aristotle's ingenious solution to this problem of the universals lies in the observation that even if a man, for example, cannot be without any particular height, a man can be thought of without any particular height. To be sure, this must not be understood that when we think of a man without any particular height, we would be thinking of a man who has no particular height, because that would imply thinking

precisely of the impossibility we concluded to just now, namely that it is impossible that something should be a man without having any particular height, and so, such a thing is unthinkable. It is possible, however, to think of a man without any particular height in the sense that we can think of a man, while not thinking that the man has this particular height. For example, if I say, "Socrates is a man", then you certainly think of a man, Socrates, and by knowing that he is a man you also know that he has some particular height. You have no idea, however, what particular height he has. So even if you know that in virtue of being a man, Socrates has to be 6ft tall, or shorter, or taller, you certainly don't think that he is 5ft tall, or that he is 6ft tall or shorter or taller.

So even if no man can be without some particular height it is possible to think of a man without thinking of his particular height. But then, in general, we can conclude that it is possible to think separately of things, such as a man and his particular height, that cannot be separately. And this is precisely the point made by Boethius in his Commentary on Porphyry, namely that the intellect has the power to separate things which are together and cannot be separated in reality. So to think of a man in general, that is, to have and exercise the universal concept of man, does not mean to have our minds fixed on a universal man, i.e., a man that has all and only those properties that are common to all men, because that is impossible; but this rather means thinking of particular men in a universal manner, that is, thinking of them qua men and not thinking of those of their features that distinguish them. Now these latter distinguishing features are what later Aristotelians called "individuating conditions". Thinking of something without these individuating conditions in the manner just described, then, is what we call abstraction, the mental process by which we form our general concepts, that is, those mental acts by which we are able to conceive of particular things in a universal manner.

But then, we are already in a position to answer our question concerning the origin of our general concepts, without having to commit ourselves to the absurdities involved in the Platonic answer to this question. We acquire our general concepts from particulars by abstraction, separating in thought what cannot be separated in reality from their individuating conditions.

But what is it, then, that is so separated in thought, which could not be separated in the thing from these "individuating conditions"? Now this is what Aristotle calls the form of a thing, or at least one of the several forms that a thing has.

For forms according to Aristotle are of two basic types. Forms are either substantial forms or accidental forms. A substantial form of a thing is one that makes the thing that has this form actually existing, which means that for the thing to be is nothing but for it to have this form. An accidental form, on the other hand, makes a thing actual only in some respect, but, since for the thing to be is not for it to have this form, the thing may have or not have this form without perishing, which, as you recall, is just the way Porphyry defined accidents.

Now this conception of forms and the way they are related to our concepts has tremendous significance in epistemology, that is, in the theory of knowledge. For if for a thing to be is for it to have its substantial form, then this means that the thing will necessarily have all those of its attributes that it has in virtue of having this form, which we call its essential attributes, under all possible circumstances under which it exists at

all. On the other hand, since by abstraction our intellects separate such forms from their individuating conditions in the particulars, by the resulting concept we shall be able to conceive all those things at once that have such a form, and attribute to all these things their essential attributes. So this conception can serve as a foundation for the possibility of our having universal and necessary knowledge, that is, scientific knowledge of the physical reality.

Unfortunately, however, not even this conception can guarantee that at any given time we are in possession of some particular piece of universal and necessary scientific knowledge. In fact, nowadays much of Aristotle's physics is irrevocably of the past. In view of what we know from modern chemistry, for example, nobody in their right mind would say that there are four elements in nature, one of which is water. Nowadays we just know (hopefully) that water is a compound consisting of H₂O molecules.

On the other hand, should this kind of knowledge necessarily overthrow the general metaphysical framework of Aristotelianism? Should modern physics necessarily demolish the whole of Aristotelian metaphysics? On the contrary! The statement I just made, namely, that water is a compound consisting of H₂O molecules, is precisely the kind of necessary, universal claim the validity of which could hardly be maintained without committing ourselves to some form of essentialism. For when we make this claim, we imply that this holds of any water sample at any time, under any possible circumstances. As long as something is water, it is a compound consisting of H₂O molecules, that is to say, being a compound consisting of H₂O molecules is an essential attribute of water.

To be sure, this claim is not necessarily true just because this is what we mean by the term "water". It was exactly the same kind of substance that was meant by users of the same term even before the discovery of water's chemical structure. Indeed, if this had somehow been implied in the meaning of this term, no chemical research would have been needed to make this discovery. So, since the necessity of such a scientific claim is not due to some linguistic convention (the commonly agreed meaning of the term "water"), it cannot be regarded as giving just a certain explication, a detailed description of our common concept of "water", accounting for the meaning of this term. Instead, we should say that it gives us an independent characterization of the thing that we conceived by this concept even previous to this scientific discovery.

But then, the necessary truth of this characterization depends on whether the thing so characterized does indeed necessarily have the attributes specified in this characterization, whether what is water is indeed necessarily a compound consisting of H₂O molecules. Now Aristotelian essentialism does not tell us whether this particular characterization is in fact necessarily true or not. What it does tell us, however, is that there is some such characterization which, if it's correct, does necessarily and universally apply to the kind of things it characterizes.

To see this, consider the following. Aristotle tells us that things have substantial forms, that is, such forms that for the thing to be is nothing but for it to have such a form. It is such a form, however, which is abstracted from its individuating conditions when a substantial universal concept of the kind of thing in question is acquired. But the substantial attributes of things, that is, their species, genera, and differences are precisely

those terms, which are predicable of them in virtue of being associated with such substantial concepts, and which, therefore, represent just these substantial forms. But then, these attributes are going to be true of these things just when they have the substantial forms represented by their corresponding concepts. But since for a thing to exist is to have such a substantial form, whenever such a thing exists, it will have such a form, and, consequently, whenever such a thing exists, its substantial attributes are going to be true of it. But this is precisely what is required for the universal and necessary validity of a scientific generalization concerning a kind of things. If the proper genus of water is truly the concept expressed by the term “compound”, and if its specific difference is truly the concept expressed by the phrase “consisting of H₂O molecules”, then, since the genus and the specific difference are concepts abstracted from, and therefore representing, the substantial form of the thing, which the thing must have under any possible circumstances, provided it exists, this characterization will be true of anything that is water, under any possible circumstances under which it exists.

Now to see the significance of this result, suppose that things don't have substantial forms. This means that there is no such a form in a thing that for the thing to exist is to have that form. So, the same thing may have just any set of forms in any possible combinations, indiscriminately. But then, this would mean that of the same thing any possible combination of (compossible) terms could in principle be true. But then even if we find that water is actually a compound consisting of H₂O molecules, it is quite possible that the same thing will not be a compound consisting of H₂O molecules in the next moment, or indeed, that the same thing which is now water will not be water. And this holds not only for this particular characterization, but for any other characterization whatsoever. So no universally and necessarily valid scientific claims can be made about the nature of things.

Abandoning essentialism, therefore, leads to an abandonment of necessary scientific truths. Embracing essentialism, on the other hand, guarantees only a possibility for science to make necessarily valid claims about nature, but, of course, it does not guarantee the correctness of any particular scientific claim. Now this is the reason why despite the fact that Aristotelian physics with its particular claims about nature is no longer tenable, Aristotelian metaphysics still lingers on in the discussions and attitudes of many contemporary scientists and philosophers, whom we may call scientific realists. Scientific realists view science just the way described, namely as supplying us with necessary and universal truths about the nature of things. But despite its appeal to scientific realists, the Aristotelian conception of essence, or substantial form is still puzzling even to these philosophers.

The source of this puzzlement is that contemporary philosophers tend to view essence as a sheer list of essential properties, or, rather, some obscure entity lurking behind the accidents of things, containing somehow only these essential properties. But this is precisely the wrong, Platonistic conception of essence, namely that of a thing containing only the essential properties of particulars. (And then, whether we think of such a thing as existing over and above, or only somehow inside the particulars is totally irrelevant, as we have just seen that such a thing cannot exist anyway, since supposing its existence leads to contradiction.)

However, keeping with the original, Aristotelian conception, there is nothing wrong with the concept of essence, or substantial form. According to this conception, a substantial form is something that we directly conceive by the substantial concepts of things (for we acquire these concepts precisely by abstracting substantial forms from their individuating conditions in the way I described). Therefore, to have the concept of, say, water, is not to have a set of properties in mind which something must have in order to qualify as water. If we have a substantial concept of a thing then by that concept we conceive the substantial form of the thing. If we have the concept of water, and this concept is a substantial concept of this kind of thing, then by this concept we conceive of the substantial form of water, for this form is precisely from where we acquired this concept, without having to rely on a set of identifying properties. But in virtue of having this concept we need not be able to re-identify this form by means of other concepts too, that is, we need not be able to provide the essential definition of water, which characterizes the same form, but by means of concepts other than the concept of water. Indeed, precisely because having the concept of water is not just having a set of identifying properties in mind, we can never arrive at an essential definition of water by just analyzing our concept of water, but this is a task of scientific research.

As a consequence, it is no wonder that Aristotelian essentialism could and did fail in science, as to many particular hypotheses Aristotle risked concerning the nature of things. On the other hand, the same Aristotelian essentialism need not have failed in the philosophy of science and in metaphysics, as to its most general principles concerning how our language and our concepts are related to the world, even if historically it did. But the actual historical defeat of Aristotelian metaphysics is a long and complicated story, which is a further issue in itself.

DE BONO: BOETHIUS'S DE HEBDOMADIBUS

How is it possible that substances are good in that they are, although they are not substantially good? In his little treatise, "De Hebdomadibus", Boethius himself warns his reader of the obscurity of the question and of the abstruse character of the related speculations he is about to put forward. But the modern reader's puzzlement over his work probably exceeds by far anything that Boethius assumed.

Indeed, our puzzlement starts over the very title of the work. What can this strange phrase mean? To understand what it means and what its significance is, we have to know a little more also about its history. This title, translatable as: "Of Groups of Seven", was not given to the work by Boethius himself. It was introduced by medieval scribes for shorter reference, on account of Boethius's opening remarks concerning his "Hebdomades". But owing to the decline of Greek education, the medieval scribes and commentators of the work already had no idea of the significance of these remarks. The Greek phrase, "Hebdomades", meaning: "Groups of Seven", by all likelihood refers to a lost work whose main theses were gathered in groups of seven propositions put forward for meditation for every day of the week, entitled by Boethius "Hebdomades" probably in imitation of Plotinus's "Enneades", a work arranged by Plotinus's disciple, Porphyry, in groups of nine propositions. So it is probably concerning one of the propositions contained in this lost work that Iohannes Diaconus, apparently a younger friend and disciple, asked Boethius's fuller explanation, which Boethius provides in our little treatise.

That Boethius probably wrote a book after the model of Plotinus's work, while modifying the arrangement to meet Christian religious habits, whether it's actually true or not, has symbolic significance. For this expresses precisely what renders Boethius's thought of utmost historical importance: his grand plan of making the whole of Plato's and Aristotle's philosophy available to Latinity, along with commentaries showing their basic harmony, thereby continuing the Neo-Platonic tradition, and unifying their principles in a Christian theological synthesis. In the turbulent age of the fall of the Roman Empire, however, Boethius's plan was doomed to remain unfulfilled. Actually, Boethius was able to complete only a small fragment of his original plan. From Plato he managed to translate only the *Timaeus*. From Aristotle he translated and commented on the *Categories* and the *Peri Hermeneias*, while he also translated and commented on Porphyry's *Isagoge*, the Neo-Platonic thinker's Introduction to the study of Aristotle's *Categories*. Nevertheless, together with some short treatises in logic, on the seven liberal arts, some theological tracts, and his monument of philosophical courage, "The Consolations of Philosophy", written in jail waiting for his execution, these commentaries and translations had an enormous influence on medieval Western thought. For all these works exemplified the sort of striving for synthesis, rigorosity and conceptual unity that provided a model for generations of Christian thinkers throughout the Middle Ages.

In fact, it is only against the background of this conceptual unity that his and later scholastic philosophers' works are properly understandable, and therefore it is precisely our general lack of this conceptual background that renders works like his "De

Hebdomadibus” so cryptic to the modern reader. Let me, therefore, try to sketch here at least some of the essential points of this background, on the basis of which perhaps we shall gain some insight into the main points of this grand system of thought. So let us see first what are in particular the points we are generally missing from the background of Boethius’s question, what is it that renders this very question so enigmatic to the modern reader?

I think that besides the unfamiliar technical terminology, which, after all, one can easily acquire, the main reason that the modern reader may find Boethius’s very question unpalatable is that it rests on certain assumptions we are no longer prepared to accept. Evidently, asking how it is possible that substances, that is, self-subsistent beings are good in that they are, although they are not substantially good, presupposes that every substance is good, which is to say that there are no bad substances. But, of course, for example, human beings are substances, i.e., self-subsistent beings, and, unfortunately, there are bad people. So some substances are evidently not good. Then why should we swallow such a presupposition, when it appears to be evidently false?

As a matter of fact, if we take a closer look at what Boethius himself says about his own assumptions, which he takes to be self-evident, we can see that probably many of these assumptions were not generally regarded as self-evident by his contemporaries either. When he puts forward what he regards as the axiomatic assumptions required for a resolution of the question, explicitly taking the axiomatic method of mathematics as his model, Boethius makes an interesting distinction concerning the self-evidence of these assumptions. He says that self-evident assumptions, what he calls here common conceptions of the mind, generally fall in two classes.

Common conceptions of the one kind are approved by anyone as soon as they hear them uttered, while common conceptions of the other kind are approved only by the learned, although these latter conceptions are somehow derived from those of the first kind. Now, evidently, there are self-evident propositions of the first kind. Boethius’s own example serves as a good illustration: “If from equals you take away equals, the remainders are equal”. Anyone hearing and understanding this proposition immediately assents to it, so that its denial would be unacceptable to him. But this also means that anyone understanding this proposition would find any apparent contrary evidence easily dismissible. Indeed, we may say that one can be said to understand this proposition properly only if he is able to dismiss any apparently contrary evidence and point out how the proposition is irrefutable by that evidence.

Suppose, for example, that I have one gallon of water and one gallon of gasoline in two dishes in front of me. I take away half gallon of liquid from each dish. Then I measure the remainder and I find that I have half gallon of water, but less than half gallon of gasoline left. Did I thereby refute our axiom? Of course, the whole room reeks of gasoline, at least as much as this “refutation” reeks of incompetence. Evidently, anyone understanding our axiom will immediately point out that the phrase “you take away” is not to be construed strictly and literally, and that despite the fact that I took away equal amounts of liquid, due to the fast evaporation of gasoline, it was not equal amounts by which the original amounts decreased, and this is why the remainders are unequal, not because of the falsity of our axiom.

So far, so good. But what about the other class of self-evident propositions? What difference does it make in self-evidence whether a proposition is approved by the learned? Isn't Boethius just trying to appeal to the vanity of his reader here? Well, the matter is certainly more important than that, and, in any case, Boethius definitely does not want to be popular in this work, so there is no need for him to flatter his reader. On the other hand, as we could see in the previous example, recognizing the self-evidence of a proposition does have something to do with competence. Indeed, we can say that recognizing the self-evidence of this proposition takes only linguistic competence: anyone who understands this proposition properly immediately assents to it, and knows how to eliminate the apparent contrary evidence, as demonstrating not the falsity of the proposition, but the linguistic incompetence of the person who was trying to refute it.

Again, in the case of a simple mathematical proposition, such as " $1+1=2$ ", understanding this equation properly is all that is required for assenting to it. Therefore, anyone having the elementary arithmetic competence of possessing the concepts of natural numbers, addition and equality will immediately assent to this proposition upon hearing and understanding it. Again, the proper understanding of this proposition will involve the ability to dismiss apparently contrary evidence: anyone having this kind of elementary mathematical competence will be able to point out why adding one droplet of water to another one, yielding just one bigger droplet instead of two, will not falsify this arithmetical truth.

We can say, therefore, that while in the former case it was mere linguistic competence that was required to recognize the self-evidence of the proposition, in the case of a simple mathematical proposition it is some elementary mathematical competence that is required. So cannot we say that in the case of a metaphysical proposition, it is some sort of "metaphysical competence" that is required? But what is this "metaphysical competence", and what is its relation to those ordinary sorts of competence we all are familiar with? Indeed, finding an answer to this question may just serve to understand what Boethius meant by saying that common notions of the second kind are derived from those of the first kind.

In the previous simple cases of linguistic and elementary mathematical competence we could see that competence involved possessing the proper concepts expressed by our self-evident propositions in such a manner that would enable their possessor to explain how these propositions can be maintained against apparently contrary evidence. Now, perhaps, we can say that the same applies to even less elementary cases, i.e., to cases in which more abstruse concepts and more sophisticated means of eliminating apparently contrary evidence are involved. Consider for example somewhat more advanced mathematics, like non-Euclidean geometry. On the basis of understanding the logical independence of the axiom of parallels from the rest of the Euclidean axioms we can accept the idea of a consistent geometry in which some denial of this axiom serves as a first principle. Of course, understanding non-Euclidean geometries will require a more sophisticated understanding of the elementary notion of a straight line, for example. This understanding is achievable by reflecting on how the axioms regulate the formation of our elementary notions, and so how the consistency of non-Euclidean axiom-sets allows the formation of the concept of a non-Euclidean straight line. But once this understanding is achieved, again, on the basis of this understanding one can easily eliminate apparently

contrary evidence, say, our inability to draw or even imagine more or less than one straight line parallel to a given line on a blackboard, which is perceived to be contrary only because of the lack of the required competence.

But then, we can say that the “metaphysical competence” we are looking for is again nothing but the possession of some more sophisticated concepts, formed on the basis of our more elementary concepts available just to anyone, but the formation of which requires further careful reflection on these elementary concepts. However, once we have these more sophisticated concepts we shall have such a proper understanding of the first metaphysical principles that will enable us to see how we can eliminate apparently contrary evidence, perceived as contrary only for want of this kind of competence.

Anyhow, let us take a fresh look at the claim presupposed by Boethius’s question from this angle. Let us see how, on the basis of a proper understanding of the claim that every being is good we can eliminate the apparently contrary evidence of the existence of bad people. To see this, we should first consider on what basis one can hold that such a claim is irrefutable, what understanding of the concepts of being and goodness are required to hold such a claim against the evidence of the existence of bad people (let alone other evils).

Saint Thomas Aquinas, who wrote an extensive commentary on the *De Hebdomadibus*, in his *Summa Theologiae* [ST1 q.5.a.1.] addresses this problem in the following way:

“It appears that to be good is really different from just to be. For Boethius says in his *De Hebdomadibus*: “I observe that it is one thing that things are good and it is another that they are”. Therefore, for things to be and for them to be good are really different.

In response to this question we have to say that to be good and to be are in fact the same, they only differ in their concepts. And this should be obvious from the following. The concept of being good consists in being desirable, wherefore the Philosopher in bk. 1. of the *Ethics* says that good is what everything desires. But it is evident that everything is desirable, insofar as it is perfect, for everything desires its own perfection. On the other hand, everything is perfect inasmuch as it is actual, whence it is obvious that everything is good inasmuch as it is, for being is the actuality of every thing [...]. Therefore, it is clear that to be and to be good are in fact the same, but the concept of good implies the concept of desirability, which is not so implied by the concept of being.

To the first objection, therefore, we have to say that although to be good and just to be are in fact the same, as they differ in their concepts, it is not in the same way that something is said to be good, and that something is said to be, without qualification. For since the concept of being implies that something is actual, and actuality is properly opposed to sheer potentiality, something is said to be, without qualification, on account of that by which it is primarily distinguished from something that is merely in potentiality. But this is the substantial being of each and every thing. Therefore it is on account of its substantial being that anything is said to be, without qualification. On the other hand, it is on account of further, superadded actualities that something is said to be somehow, as to be white means to be somehow, for to be white does not remove sheer potentiality, absolutely speaking, because it just qualifies something which already is in actuality [by its substantial being]. But being good implies perfection, which is desirable and therefore refers to what is an end. So that thing is said to be good without qualification which has

its final perfection. But the thing that does not have the ultimate perfection that it should have (although it does have some perfection insofar as it actually is) is not said to be perfect without qualification, indeed, nor is it said to be good without qualification, but only with some qualification. So it is with respect to its first being, which is its substantial being, that something is said to be without qualification, but it is said to be good with qualification, i.e., insofar as it is a being [and thus it does have some primary perfection]; on the other hand, it is with respect to its ultimate actuality that something is said to be with qualification, but it is said to be good without qualification. Therefore, what Boethius said, namely that it is one thing for something to be, and it is another for it to be good, should be understood as concerning some thing's being and its being good absolutely speaking, without qualification. For by its first actuality [i.e., by its substantial being] something is a being, absolutely speaking, but a thing is good, absolutely speaking, by its ultimate actuality [i.e. by its ultimate, proper perfection]. On the other hand, the thing is good with qualification, with respect to its first actuality [i.e., insofar as it exists at all, thereby having some perfection, namely the actuality of being], while with respect to its ultimate perfection the thing is with qualification, [i.e., it is somehow, possessing also some further perfection, besides just actually existing]."

In order to solve our initial difficulty with the existence of bad people, there are two points in this passage that we should understand very clearly here. The first is the idea of real identity and conceptual difference of being and goodness, while the second is the resulting difference in their predication with and without qualification. To understand these points we have to consider first how and in what respects we call something a being.

Primarily, we call something a being in the sense that it is one of the actually existing things. In this sense a human being comes to be a being, when he or she comes to be, absolutely speaking, that is, when he or she is born. Again, this human being is a being as long as he or she lives, and ceases to be a being when he or she dies. It is being in this primary sense-which in the case of a living being is life-that St. Thomas calls substantial being. But besides just being in this primary sense, a being is or can be actual in several other respects. Once it is here, then it is there, once it is doing this, then it is doing that, etc. It is these further, superadded actualities that render a being, which already exists in the primary sense, i.e., which already has substantial being, to be somehow, that is, to have some further actualities, further determinate modes of existence. With respect to the primary, substantial being, something is called a being without any qualification. But with respect to these secondary, superadded actualities something is called a being only in some definite respect, being somehow (say, being here, being there, being this big, being of this color, being engaged in this activity, etc.).

We should notice here that something's being in the primary, absolute sense is compatible with the same thing's not being in some respect. For example, my being, absolutely speaking, that is, the fact that I am alive, is compatible with my not being now in Hungary, not going to the library and not meeting my friends there. On the other hand, given the fact that I'm a human being, which means that I'm a thinking, perceiving, living body, my being implies that I have to be somewhere, and I have to be doing something, compatible with my nature, such as giving a lecture at Yale. Indeed, being of this nature, my being here and doing this is incompatible with my being elsewhere and

doing other things in those other places at the same time. So having this nature necessarily delimits the kinds of superadded actualities I can have at any given time. Therefore, my being without qualification, given the fact that I am of this limited nature, while implies several kinds of superadded actualities, not only permits but also implies several sorts of non-being in some respects. Obviously, as I am a body, my being, absolutely speaking, implies my being somewhere, but being a finite, delimited body, my being somewhere also implies my not being elsewhere. And the same goes for all other bodies. What is more, even if there were an infinite body, occupying all places in the world, whereby it could be said to be everywhere, even that body could not be said to be totally everywhere, for it is only some part of it that could be said to be here, while its other parts would be elsewhere. So even that infinite body would be delimited in its being, just like I am: being a body, that is, being extended in space, it could not be wholly everywhere, because being a body implies having parts located in different places. In fact, from this we can immediately see that if there is a being that has no such parts, and which, therefore, is not a body, but which still can be said to be somehow in a place, namely, by exerting its activity in this place, then such a being can be wholly everywhere, that is by exerting its activity fully in all places. It is in this way that we can say that God is totally everywhere, by exerting fully His creative power in maintaining the existence of everything, everywhere in this world.

Now having thus seen the implications and the limitations a given thing's nature imposes upon its secondary actualities, even if the thing has its primary, substantial being, we can easily understand how these various sorts of being are related to the thing's goodness, and so how a thing's being good insofar as it exists by its primary, substantial being is compatible with the thing's being bad, despite the identity of being and goodness in general. For, as Aquinas explained, just as the thing is called a being without qualification on account of its substantial existence, while it is called a being with qualification with respect to its secondary actualities, so is it called good without qualification with respect to its secondary actualities, while it is called good with qualification with respect to its substantial being. As we could see, the reason for this difference is not that being good is a different actuality from being in general, but that we can call something good on account of its perfection, which, absolutely speaking, involves also the secondary actualities of a thing required by its nature, while just to be, without qualification, although it is some perfection, does not imply the presence of the required secondary actualities.

Our bad person, therefore, is good, insofar as he is, that is, with respect to his substantial being, but he is not good, absolutely speaking, because he lacks the required secondary actualities, the kind of perfection a human being has to have to be called good without qualification, namely, the perfection of a human life, which is living a life according to what is best in us, that is, a virtuous, spiritual life.

So, on the basis of this more sophisticated understanding of the claim that every being insofar as a being is good, we can see how, despite appearances, the existence of bad people does not refute this claim. But, perhaps, even if now we see how we can maintain such a claim, we still cannot see why we should maintain it. Even if now we see how we can maintain the real identity of unqualified being with qualified goodness and of unqualified goodness with qualified being, we may still ask: why should we?

From the passage quoted from Aquinas we may gather the answer, if we consider again what we should understand by calling something good. As the Philosopher says: good is what everything desires. That is to say, we call something *good*, insofar as, and to the extent, it is *desirable*. But what is desirable is the *natural end* of some action, for the sake of which something is done or is worth doing, for this is what being desirable is, namely, being something for the sake of which it is worth doing something. Indeed, this is precisely the idea expressed by Boethius, who says that everything that *acts* tends toward some *good*, as its *natural end*. However, the natural end of all desire moving to action is always some *perfection*, since no agent would act for the sake of obtaining some defect as such, rather than some perfection. But every perfection is the completion of a thing's being to the extent required and permitted by the thing's nature. So it is clear that it is always some being that is desired, and so it is always some being, insofar as it is the object of desire that is good. So we *have to* maintain that being, that is, *to be*, and goodness, that is, *to be good*, are the same, only the concept of good adds to the concept of being the aspect of desirability.

But, again, for a full understanding of this reasoning we have to see very clearly how we should interpret the further claims involved in it, namely, that every action tends toward some good, and that this good is perfection, whence it has to be some being. So we have to consider, again, the most plausible objections that can be raised against these claims.

First of all, it does not seem true that every action tends toward some good. For evidently, in the case of voluntary actions performed by intelligent agents, the agent, if not omniscient, can be mistaken about the effect of the action, and so although the agent is intending some good, the action will tend toward something bad.

Again, from experience we know that human agents often do and intend to do something bad. So they are not simply mistaken about the outcome of the action, but directly intend the bad effect, *qua* bad, what they wish to achieve by their action.

Furthermore, in the case of natural agents, not acting by free will and intelligence, it is not at all clear that the notion of acting for the sake of something good is applicable at all. For even if perhaps in the living world we can make some sense of what it is for a living being to act for its own good, whether or not it recognizes it as such, as a plant or an amoeba certainly does not, what would we say about the actions of a tornado, a volcano, or just the falling of a stone? How could these actions be regarded as tending toward some good?

Furthermore, what can we make of the idea that all these actions tend toward some perfection? For if we grant that all sorts of perfections are some form of being, either primary, substantial or secondary, accidental being, how can we account for all sorts of destructive actions both in nature and in the sphere of voluntary actions?

Indeed, finally, how can we account for suicide, a manifest example of self-destruction depriving the agent of all perfection?

Now, again, in addressing these difficulties we must not forget that if we deny a principle, by the very act of denial we do not treat it as a first principle, since a first principle is something that if we properly and competently understand it, we cannot but assent to it, so by such a denial we just reveal our incompetence in understanding it. In

the case of the principle that every action tends toward some good we know why we have to hold it, at least in the case of voluntary agents, for it is evident that an agent insofar as an agent will perform an action only for the sake of reaching some end, which, as such, is the good to be obtained by the action. We just don't know how to account for apparently contrary cases. So let's see these first.

The case of the mistaken agent seems really simple. The agent's action tends toward something which is bad, but which appears to the agent as good, so it seems that to accommodate such cases we only need to extend the interpretation of our principle to apparent goods. But there still are some problems with this simple solution. An apparent good is not some kind of good, it is simply not good at all, just like forged money is not a kind of money, but it is no money at all. So it seems that this extension of our interpretation of this principle is no more justified than the extension of the principle "you can legally buy goods for money" to forged money. So why should we accept this extended interpretation in this case?

The reason for this is that even if what the agent perceives as good is in fact not good, it will not move the agent to act, that is, it will not move as something good, unless the agent perceives it as something good. So the act evidently tends toward some perceived good, which is the end of the action precisely because, and only insofar as, it is some perceived good, regardless of whether it is in fact good or not. So insofar as this principle expresses the necessary relationship between agent, action and the end of action, it is evidently true, regardless of whether the end of action in itself is really or merely apparently good. So any agent insofar as an agent acts for the sake of something good, qua good, whether what it acts for is in fact good or merely apparently good. Consequently, it would be a mistake to modify our principle so that it will explicitly refer to some apparent good. For the agent is not moved by an apparent good as such, but by some perceived good as such. A hungry man may be misled by mock food, but he is deceived by mock food precisely because he did not desire mock food, as such, but real food, as such, which he perceives as good for him, insofar as he perceives it as capable of appeasing his hunger.

So the case of our principle and that of "you can legally buy goods for money" are not the same. For the principle: "every action tends toward some good", according to the right interpretation, i.e., taking "good" to refer precisely to that for the sake of which the agent is acting, is going to be true regardless of whether the end of action in itself is really good or not for the agent, that is, whether or not it is really going to confer some perfection on the agent, even if it is evidently for the sake of such a perfection that the agent desired it. On the other hand, the claim: "you can legally buy goods for money" will not be true regardless of whether we interpret it for real money or for forged money.

And by this we can also see the solution of the difficulty concerning evil intentions, when the agent is not mistaken, but seems to be acting for the sake of something bad. For in fact, even in these cases the agent acts only for the sake of some perceived good as such, which he or she intends to reach by some perceived bad. But also in this case the end of action is that for the sake of which it is done, which moves the agent as something desired, and so as some perceived good of the agent. This is most manifest in the case of bad actions committed for the sake of some perceived profit for the agent.

But what shall we say, then, of self-destructive actions, or of the ultimate self-destructive action, that is, suicide? What profit, what perceived good would the agent hope to gain, when knowingly deprives him- or herself of the very possibility of any good at all? Well, suicide is an act of desperation, an act of riddance of some greater evil. So when the agent suffers some ultimate deprivation of a natural good state, say, health, what is ultimately desired is that natural good state, which, however, at the same time is perceived as unattainable. So desiring that natural good state the agent terminates the insufferable unnatural state, by terminating his or her own existence altogether.

But all these considerations leave the cases of non-voluntary natural agents unaccounted for. Very briefly, two further points need to be considered here.

The first is the goal-directedness of the actions of instruments, as their action is being directed toward some end by the action of some voluntary agent. So even if a hammer may not be said to have a goal of itself, clearly, as the tool of a craftsman it does have a definite purpose and function in the operation of the craftsman, who directs its action toward some good perceived as such by him.

The second point is regarding all agents in the world as instrumental to God's intelligent voluntary action. Even without going into further details we can see that if God is an omnipotent, omniscient, benevolent agent, then all actions of all natural agents can be viewed as directed to their proper ends by God's continuous creating activity, maintaining their nature and through this their characteristic operations. That in this case the perceived or unperceived good of these particular instrumental agents will be their own good is clear from the consideration that God directs their operations, in accordance with their nature by necessity or by freedom, towards the greatest good, that is towards Himself, which consists in these agents' assimilating themselves to God as far as their nature permits, that is, in achieving the maximal perfection allowed to them by their nature and by their individual proper operations.

From this consideration we can also see why it is so that not every individual of any nature possesses this maximal perfection at any time. For given the limitations of any finite nature, the perfection of one is often the privation of the other. The perfection of the life of the wolf requires sometimes the privation of the life of the lamb. So this is why the natural desire of the wolf toward something good, the preservation of wolf-life, involves coincidentally the privation of lamb-life. And the same goes for all destructive actions in nature.

Again, we can also see from this how we should understand Boethius's other principle according to which everything tends to its like, from which he concludes that everything is good, given that everything tends to some good. For, apparently, when the hungry wolf desires the lamb, it does not desire its like, on the contrary, the hungry wolf would certainly desire anything but another hungry wolf. On the other hand, what the hungry wolf desires is the state of the sated wolf. So the lamb is desired by, and, therefore, is good for the wolf not insofar as a lamb (for, say, a rabbit would do as well), but only insofar as it is conducive to this particular form of self-perfection of the wolf, that is its being sated. So despite appearances to the contrary, the wolf's desire per se is directed towards its like, namely the sated wolf.

However, one can object to this interpretation by saying that the hungry wolf is dissimilar to the sated wolf precisely in respect of the *per se* object of its desire, namely, in respect of being sated, wherefore it is not true to say that everything desires its like *per se*, that is, insofar as it is desiring. On the contrary, it seems that what desires does not have that what it desires, so it is dissimilar to what it desires, precisely in respect of what it desires, of necessity. As Socrates says in the Symposium: “it’s necessary that this be so: a thing that desires desires something of which it is in need; otherwise, if it were not in need, it would not desire it”. [200a-b]

To this, first of all, we have to say that Socrates’s maxim is valid only for cases of desire for taking, but not for cases of desire of giving, that is, giving not for the sake of getting something in exchange, but just for the sake of giving. Such is the parents’ love towards their children, or God’s love towards His creatures. Secondly, even if, in cases of desire for taking, what desires does not have that what it desires in particular, and in that respect it is dissimilar to what it desires, Boethius’s axiom does not concern such particular desires. Such particular desires are always instrumental to the universal, overarching desire of the thing’s total activity, the thing’s being in its specific nature, in which something similar is desired, namely, the preservation of the thing’s being and well-being. When the hungry wolf desires to be a sated wolf, and so in this particular respect it desires to be what it is not, this desire of a particular dissimilarity is instrumental to a universal desire of similarity. For feeling hunger is instrumental for the wolf to stay alive, which is shown by the fact that a wolf that does not feel hunger will not hunt and will die. So when a hungry wolf desires to be a sated wolf, then it is a living, healthy wolf that desires to be a living healthy wolf, so in this respect it desires its like. As Socrates also says in the Symposium: “This is what it is to love something which is not at hand, which the lover does not have: it is to desire the preservation of what he now has in time to come, so that it will have it then”. [200d-e]

That Boethius’s axiom is indeed to be taken in this sense is shown by his subsequent argument [ll. 62-68.], in which he argues that things that are good cannot be good by participation, that is, having goodness as their accidental feature. For here he argues that what are good by participation cannot be good in virtue of their own being, wherefore they are not good in that they are. But then, they do not tend to some good, which is their like, which was conceded in the first argument. But then also in the first argument [ll. 57-60.], tending towards its like has to be understood as a thing’s tendency towards its like in its substantial being, that is, as the thing’s tendency towards self-preservation. Therefore it is in this sense that, despite appearances to the contrary, the hungry wolf’s desire for a lamb, which is its desire to be a sated wolf, is its desire towards its like, in that by this desire it is in fact a living wolf that desires to be a living wolf, that is, by the very activity of its life, which is its substantial being, it tends towards the preservation of this substantial being. So by its being it tends towards its own good, which is nothing, but itself in continued being, which is therefore its like in being, and so we can say that the wolf is itself good in its being. But in regard of their substantial being all substances are alike, so what goes for the wolf in respect of its substantial being goes for all substances in the same respect. So all substances in respect of their substantial being, that is, in that they are, are good. But then it appears that they are substantially good. For whatever belongs to a thing insofar as it belongs to the thing necessarily as long as it is. But what belongs to the thing necessarily as long as it is, appears to belong to it substantially, just

like rationality, which belongs necessarily to a human being as long as he or she is, belongs to him or her substantially, that is, in virtue of what he or she is.

However, it cannot be the case that goodness should belong just to any created substance in virtue of what it is, that is, substantially, despite the previous conclusion that everything is good insofar as it is. For being substantially good is being good in essence, which means to have goodness as the thing's essence. But it is only God, the First Good, who has His goodness as his essence, so if everything is good by its essence, then everything is God, which is nonsense. So creatures cannot be substantially good. But since everything that has some property has it either substantially or accidentally, that is, in Boethius's terminology, by participation, and creatures cannot be good substantially, nor by participation, it seems that they can in no way be good, which contradicts our painfully established conclusion that everything is good insofar as it exists.

Boethius provides a solution to this problem by the following thought-experiment. Suppose the impossible, namely, that creatures exist and they are good, without God keeping them in existence. But then, since for a creature to be and to be something, like to be colored, to be here, to be of this weight, height, etc. are different, then also for them to be and to be good would be different. For otherwise all their properties were identical with their substance, and so the goodness of a creature would be identical with its substance, and also its whiteness and its weight and its height, etc., and so also these, say, their height and weight would be identical, which is nonsense.

On the other hand, if they did not have these material properties, like height, weight, color, etc. which all imply spatio-temporality, and therefore, some limitation of being, but they had only goodness, which does not have such spatio-temporal implications, because also a spiritual being can be good, then they could have this goodness as their substance. But if they had only goodness, which were to be their substance, then there would be no distinction between them, and so there would not be many things but only one, and that one would not be a creature but rather the First Good itself, that is, God.

So, on the basis of these considerations the following answer can be given to the original question. Creatures are good in that they are, that is, in their being, because their substantial being, deriving from the First Good itself is good. If, per impossibile, they could exist without God's maintaining their existence, then their existence would not be their goodness, so then they would not be good in that they are. However, since they in fact exist, because they receive their existence from the First Good, their existence is good, so they are good in that they are. Still, creatures are not substantially good, that is, their goodness is not their substance. This is precisely why for them to be good absolutely speaking is not for them to be absolutely speaking, but for them to be absolutely speaking is for them to be good only with qualification, that is, insofar as they are, insofar as they receive their being from what is absolutely good in what it is, that is Goodness itself, which is God. For it is only the unlimited divine nature that IS, totally and absolutely, without limitation, in full actuality of infinite energy, which therefore is the totality of unlimited perfection, and so is good, without limitation or qualification, since for Him to be is to be good, to be eternally living, thinking, happy, caring, providing, just and anything we can think of without limitation of perfection, indeed, exceeding in perfection anything we can think of, given the limitations of our own thought. So it is God alone who is substantially good, and it is only He, for whom to be good in his being is to be

good absolutely speaking, while for creatures to be good in their being is not for them to be good absolutely speaking, but only insofar as they share in divine goodness by their being.

But, then, why cannot we say that they are white, or of any other accidental quality, in that they are, or isn't their being white a form of their being, and therefore their share in divine perfection? Yes, their being white is their share in divine perfection, still we cannot say that this belongs to them in that they are. For to be white is not just to be, for to be white is accidental, while to be is essential even to what is actually white. But we can say that they are good in that they are because their being derives from the First Good, which is essentially good. On the other hand, we cannot say that they are white in that they are, even if they got their whiteness from God, for their being white does not derive from The First White, but from God, who is not white, as being white per se implies being colored, and therefore, being a body, and therefore having spatio-temporal limitations in being, which cannot apply to the absolute being, God.

But then why cannot we say that anything that is just is just in that it is? Certainly, justice does not have such implications of limitation of being as whiteness has. But justice does have something to do with action: we cannot call somebody just, who does not act justly. But for us to be, and to be active are not the same, as we are not always in full activity throughout our being. But God is. So for Him to be, to be active, to be good and to be just are the same, his infinite divine essence. On the other hand, for us to be is to be good with qualification, insofar as by our being we share in divine goodness. But for us to be just is not only to be, but to act justly, and so it is only by that activity that we shall have our share in divine justice.

So if we want to be godlike, which is to want to be happy, for happiness is the perfection of a complete life, and so it is the unlimited perfection of divine life which is complete happiness in an absolute sense, then we have "to strain every nerve"-as the Philosopher says in the tenth book of the Ethics-"to live in accordance with the best thing in us", that is, to live a life by which we can have as much share in divine happiness as much our nature in our present condition allows us to have, so that we can leave this life well-prepared for a higher form of existence.

But isn't this just the message of Plato? Again, isn't this the message of Christianity, too? Indeed, on a larger scale, isn't this the message of all spirituality amassed in the history of mankind in all cultures and in all ages? In the age of the fall of the Roman Empire, in a total turmoil of conflicting interests and clashing values Boethius was striving to find an expression of this common message, lest it be lost in the turmoil, to the detriment of all mankind. Perhaps, in this age of turmoil of conflicting interests and clashing values, shaking societies on a global scale, we should take Boethius's concerns seriously, and regard them as our own concerns too.

ST. THOMAS AQUINAS ON BEING AND ESSENCE

As Aquinas' text presupposes a strong Aristotelian background, I will sketch here at least some essential points of this background, without which it is impossible to reach a correct understanding of Aquinas' metaphysics.

First of all, since Aquinas spends a great deal of discussion on how the essences of things are signified, we have to be clear about how he conceives of the relationships between our words, concepts and the things they represent. Crucial to his conception is what historians of mediaeval logic call the inherence theory of predication. This theory can be summed up very simply as follows:

A general term (i.e., a term that can be true of many things) signifies inherent forms of individual things. What makes such a term true of a particular thing is the actuality of the form signified by the term in this thing. If the form so signified is actual, then the term refers to this thing.

For example, the term 'round' is a general term, because it can be true of many things. This term signifies the inherent roundnesses of individual things, like the roundness of this or that particular billiard ball. It is the actuality of these roundnesses that makes these things round. Indeed, the term 'round' signifies also the roundness of, say, this particular lump of clay as well, but since this lump of clay is not round, its roundness is not actual. However, since it can be round, its roundness, signified by the term 'round', is potential.

So the term 'round' signifies all roundnesses of individual substances, whether these roundnesses are actual or not. This term, however, does not stand for these roundnesses. The term 'round' refers to a round thing, not to its roundness. Indeed it refers to the thing only if it is actually round, i.e., if the form signified by the term is actual in the thing.

Now this apparently very simple theory has tremendously far-reaching consequences in metaphysics. First of all, evidently, this theory is committed to a huge number of rather unusual, non-substantial and non-actual entities, such as Plato's past love towards Socrates, Homer's past blindness, or my presently merely potential, but in the future hopefully actual wisdom.

Well, Aristotle certainly did have a place for many of these things in his ontology: as we know, in his *Categories* he admitted without hesitation non-substantial entities falling in one of the nine accidental categories, and his theory of change and motion in his *Physics* actually requires several sorts of non-actual, past, future or merely potential entities. The above-sketched theory, however, is also committed to certain things that could not find their place even within this rather liberal ontological framework.

Privations, for example, being the lack of some positive entity, cannot be held to be either substantial or non-substantial entities falling directly in one of the ten categories. For example, blindness, being the lack of sight in an eye, is not so much an entity as a mere lack of an entity. Indeed, for blindness to exist is nothing, but for something else, namely for sight, not to exist. So the being of blindness is nothing but the non-being of sight, whence if sight is a being, blindness is a kind of non-being. But since nothing can be both a being and a non-being in the same sense, and blindness is a non-being in the same sense as sight is a being, blindness can be a kind of being only in a different sense.

Certain relative properties cannot be regarded as beings in the same sense either, as is clear if we consider their behavior in respect of change.

According to the Aristotelian analysis of change, a substance undergoes change, when a form that before the change was merely potential becomes actual in this substance. For example, the above-mentioned lump of clay in the hands of a potter may take on round shape, that is, its originally merely potential roundness will become actual, and so the lump of clay changes into a clay ball. So in this case, the actualization of a significate of a predicate, namely, of the predicate 'round' is a real change taking place in a substance. On the other hand, we cannot say that such an actualization is always a change of a substance.

Consider e.g. the situation, when the potter first decides that he will form this lump of clay into a ball. At that time something becomes true of this lump of clay that was not true of it before, namely that the potter thinks of it, as he wants to change its shape. But certainly the mere fact that the potter thinks of it, does not change the clay. So the actualization of this new property of the clay, namely that the potter thinks of it, is not a change in the clay. So here we have a case in which the actualization of a property of a substance, signified in this case by a relative predicate, is not a change of this substance. But then this property cannot be a being in the same sense as the ones whose actualization is a change of some substance.

Indeed, according to Aquinas, such are the relative properties of God in respect of His creatures. So the mere fact that by the change of His creatures God comes into different relations with the creatures does not imply any change in the immutable God.

Now it is for such and similar reasons that Aquinas begins his tract by distinguishing two different senses of the term 'being'. As he says, it is only beings in the first sense, that is, substances and their positive accidental properties falling in one of the nine accidental categories, that can be said to have real essences. Beings in the second sense are not real entities. They are just certain conceptual constructs of the human mind by which it conceives how real beings are.

To be sure, by saying that blindness or any other privation, say evil, is not a real being, Aquinas by no means implies that these privations do not exist, that they are mere figments, like centaurs or chimeras. What he says is only that they cannot be said to exist in the same sense as those positive entities of which these are the privations.

To see this in somewhat more detail, consider the following. Suppose we have to enumerate all the entities that there are in the world. Supposing, e.g., that actually we have three people in the world, Socrates, Plato and Homer, Socrates and Plato being sighted, while Homer being blind, we could begin counting like this: Socrates (1), Plato (2), Homer (3), Socrates' sight (4), Plato's sight (5), ... but at this point we could not go on: Homer's sight (6), for Homer, being blind, has no sight. On the other hand, we cannot go on counting either by saying: Homer's blindness (6), for Homer's blindness is not one of the entities in the world by speaking about Homer's blindness all we mean is that there is a gap in this series of entities here: where there should be something by nature, there is a lack of this thing. But this lack, of course, is not on a par with the things that make up the world.

It is only things in the world, the real beings, that have their own natures, beings in the second sense are only insofar as by them our intellects conceive of the ways real beings are. So Aquinas dismisses from his considerations beings in the second sense, and considers only beings in the first sense, real beings, falling in one of the ten Aristotelian categories.

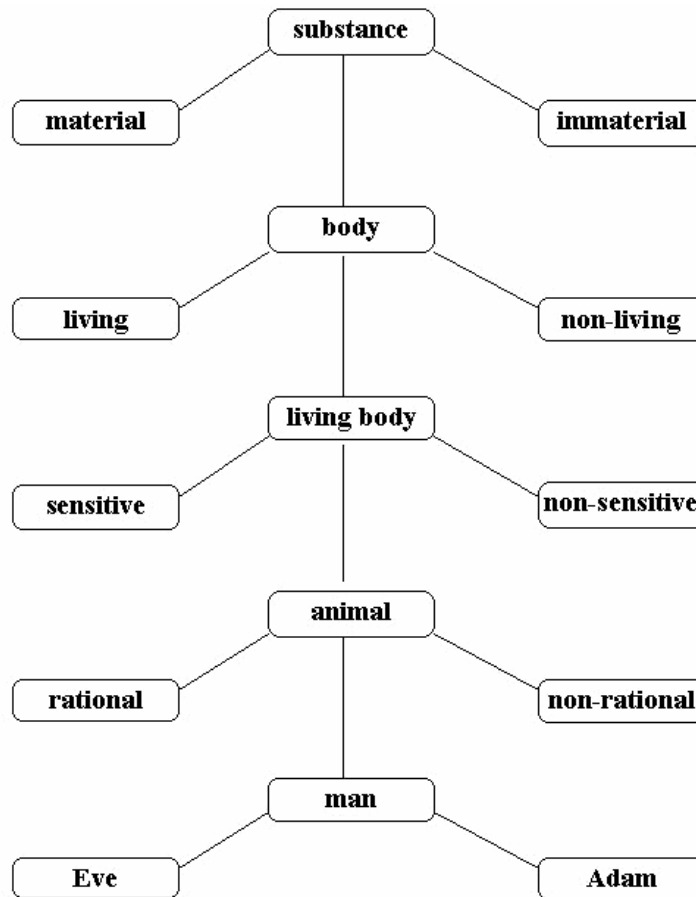
The beings in these categories are either substances, or their properties, inhering in substances as their subjects, namely accidents belonging in one of the nine remaining categories. Since it is substances that exist primarily, and accidents only as their dispositions, Aquinas devotes chapters 2-5. of his tract to considering the essences of various kinds of substances, and deals with the essences of accidents only in chapter 6. Chapters 2 and 3 deal with the essences of material substances, while chapter 4 deals with the essences of immaterial substances, that is, with the essences of angels and God. Chapter 5 provides a brief overview of the ways essence is found in different kinds of substances.

Now in order to understand these considerations, we have to be familiar with some basic concepts of Aristotelian logic, in particular, with the Aristotelian theory of definitions.

For Aristotle, a true essential definition of a certain kind of thing is not just the explication of the meaning of some term, referring to the things in question. A real definition signifies the essence of the things of this kind. Such a definition therefore enables us to formulate valid, scientific generalizations concerning the particular things of this kind, by which we can predict the ways they would behave under various possible circumstances.

A real definition consists of a genus, marking out a broader class of entities, thereby locating the kind of things in question in the system of the ten categories, and a specific difference, specifying more closely the kind in question, whereby we obtain a specific understanding of the species we wanted to define. By a series of such definitions we arrive at a clear and systematic understanding of various kinds of things, providing us with a general taxonomy of entities, which helps characterizing the specific subjects of particular branches of a unified Aristotelian science.

Such a series of definitions and the resulting ordination of general concepts according to their decreasing generality is what is usually referred to in Aristotelian logic as the “tree of Porphyry”.



Now provided ‘rational animal’ is indeed a true essential definition of human beings, this definition signifies their essence: that in virtue of which they are what they are, namely humans. If we understand this correctly, we can immediately see how we should understand Aquinas’s first main thesis of his tract, namely that the essence of material substances involves both their matter and their form.

As Aquinas explains, we should not understand this claim so that the essence of, say, Adam, is a third thing resulting from putting together two other things, namely his body and soul. [“Sed quia, ut dictum est, designatio speciei respectu generis est per formas, designatio autem individui respectu speciei est per materiam, ideo oportet ut nomen significans id unde natura generis sumitur cum praecisione formae determinatae perficientis speciem, significet partem materialem totius, sicut corpus est pars materialis hominis; nomen autem significans id unde sumitur natura speciei, cum praecisione materiae designatae, significat partem formalem; et ideo humanitas significatur ut forma quaedam, et dicitur quod est forma totius, non quidem quasi superaddita partibus essentialibus, sicut forma domus superadditur partibus integralibus eius; sed magis est forma quae est totum, scilicet formam complectens et materiam, cum praecisione tamen eorum, quibus nata est materia designari.” c.3. *in fine*, p.24.]

Indeed, as he also explains later, Adam's humanity cannot contain his individual matter, since that is precisely what falls outside his essence, rendering him this *particular* individual, but not rendering him this *kind of* individual, namely a human being.

On the other hand, being the kind of individual he is, Adam has to have a body, indeed, has *to be* a body, namely a living, sensitive, rational body. But then, a body being nothing but a material substance, Adam's essence somehow has to involve matter. Well, if not his individual matter, then somehow matter in general. However, there is no such a thing as matter in general. So how can there be matter in general in the essence of a material substance?

To answer this question we should return for a while to the inherence theory of predication. As we could see, in this theory a general term signified individual, inherent properties of particular things. For such a term to be general, it is not required that it should signify some general thing. For generality it is enough, if particulars are signified in a general manner, i.e., disregarding their individual differences. For example, the term 'man' is equally applicable to all humans. But this is not so because it signifies some universal man, to which all the particular humans are somehow related, say, by participation, as Plato would have it. What this term signifies is the individual essences of this and that human being, but not signifying them as belonging to this or that. The signification of this term abstracts precisely from those features of this or that human that distinguish them from one another and applies to them only in virtue of what makes them both humans. But as we can see from the definition of man, a man, being a living, sensitive, rational body, is a material substance, so what is signified by this term, human essence, does involve matter. However, even if there is no other matter of a human being than the matter of this or that human being, it is not this or that matter, conceived as such, that is involved in the essence of man signified by this term. As Aquinas says, it is essential for a man to have flesh and bones, but it is not essential for a man, insofar as a man, to have, say, Socrates's, or any other particular man's flesh and bones. Indeed, if this were the case, someone could be human only by having Socrates's or that other particular human's flesh and bones, which is nonsense.

Now as from these considerations we can see, the distinction between designated and non-designated matter is not a distinction between two things, but rather a distinction between different ways of conceiving of the same thing: once determinately, together with its distinguishing features, once indeterminately, disregarding these distinguishing features. So when Aquinas says that it is non-designated matter, as opposed to designated matter, that is involved in the essence of material substances, this need not mean that there is some universal matter over and above the particular matters of individual substances waiting to go into their universal essences. Instead, all this means is that these individual matters conceived without what makes them individual are involved in the essences of these things, as these essences are signified in them by their substantial predicates.

Indeed, for Aquinas, all these substantial predicates signify the very same essence in an individual substance. For example, if we take a look again at the Porphyrian tree presented above, we can see that all the predicates listed in it are true of the individuals mentioned at the bottom. Now St. Thomas' claim is that it is the very same form in Eve that verifies of her the term 'human', the term 'animal', the term 'rational', the term

‘sensitive’ etc. up to the terms ‘body’ and ‘substance’. The difference between these predicates is that they signify this form in Eve according to different concepts, by which we conceive of different aspects of this form, endowing its bearer, Eve, with different capacities, which she has in common with a narrower or broader class of other individuals.

The term ‘rational’, e.g., signifies in her this form insofar as it enables her to think, which she has in common with Adam, and so, though being different individuals, they are both essentially and equally humans. The term ‘animal’ signifies in her the same form, insofar as this form enables her to exercise animal functions such as sensing and moving, which she has in common not only with Adam, but with, say a donkey, or a dog, so all these individuals are equally and essentially animals.

To be sure, the fact that Eve’s animality is also her rationality, need not mean that also a donkey’s animality should be a rationality. A donkey’s animality is a specifically different animality from Eve’s animality, namely an asininity as opposed to a humanity.

Again, the same form in Eve enables her to grow, digest and reproduce, which she has in common not only with other animals, but, say, with plants as well, and generally with any living organism. Indeed, it is also this form that extends her matter in three dimensions in space, which is a common feature of all bodies, so it is the same substantial form that is signified in Eve by the term ‘body’, whereby Eve belongs in the same genus of substances not only with living, but also with non-living material creatures. Finally, it is the same form that makes Eve a subsistent being, who does not need a subject to inhere in, but is rather a subject of other, dependent beings, namely accidents, inhering in her. So on account of this form, Eve is a substance, as opposed to an accident, which can exist only as some disposition of some substance.

On the other hand it is not on account of this form that Eve is a being. For, as Thomas argues, Eve’s existence is distinct from her essence. Indeed, it is precisely for this reason that even if Eve is a self-subsistent being, as her essence alone does not provide a sufficient reason for her existence, she evidently needs some external cause to maintain her existence. But, the argument goes on, if this external cause again is such that its essence is distinct from its existence, then its existence is no more explained from its essence, than Eve’s from hers, so that cause again needs something else to maintain its existence. So unless in this series there is a cause whose essence is identical with its existence, and which, therefore, needs no further cause to maintain its existence, nothing would have a sufficient reason for its existence, whence nothing would exist.

This is how the famous thesis of the real distinction between essence and existence in the creatures provides the metaphysical basis of St. Thomas’s proofs for the existence of God. Given the essential insufficiency of these creatures to subsist in themselves, there must be a God, who alone has a self-sufficient essence, His essence being nothing but the plenitude of existence. So only He can give existence to His creatures: without His ceaseless providence all creatures would simply fall into nothing.

Now this is how, for Aquinas, a careful study of the metaphysical constitution of creatures can lead to a certain recognition of their Creator, insofar as by such and similar reasonings we can know that He is, that He is the cause of all being, because His essence

is his own being, whence He is eternal, perfect, immutable, good, omniscient and omnipotent.

But such reasons will never reveal for us what is beyond all natural recognition of human reason, namely the mysteries of faith, which we recognize only through revelation. So it is at this point where natural reason unaided by the illumination of faith and revelation reaches its limits, beyond which it cannot go relying on its rational principles alone. Therefore it is here that metaphysics should give way to theology, which seeks an understanding of revealed truths insofar as this is possible in this life at all, so as to prepare the soul for facing Truth in the life that comes after this. So it is at this point that the philosopher must shut up. Amen.

ST. THOMAS AQUINAS ON BEING AND ESSENCE (Handout)

THE INHERENCE THEORY OF PREDICATION A general term (i.e., a term that can be true of many things) signifies inherent forms of individual things. What makes such a term true of a particular thing is the actuality of the form signified by the term in this thing. If the form so signified is actual, then the term refers to this thing.

THE TWO SENSES OF BEING Beings in the first sense are real beings, falling in one of the ten Aristotelian categories. Beings in the second sense are not real beings, they are just objects of thought by which the mind conceives of the ways real beings are, whence they are called beings of reason. Accordingly, only real beings have real essences, signified by real definitions. Beings of reason have only nominal definitions, specifying the meaning of the names signifying them.

REAL DISTINCTION VS. DISTINCTION OF REASON A real distinction distinguishes two (or more) non-identical real entities, such as this man and this donkey. A distinction of reason distinguishes between things as conceived in different ways, by different concepts. So really identical things may be distinct by reason, on account of the same thing's being conceived differently. The distinction between designated matter and non-designated matter is a distinction of reason.

THE THESIS OF THE UNITY OF SUBSTANTIAL FORMS All substantial predicates of the same substance are true of this substance in virtue of the same substantial form. The predicates signify the same form under different aspects, according to different concepts. So the distinction between the significates of substantial predicates of the same thing is just a distinction of reason, not a real distinction.

THE THESIS OF REAL DISTINCTION BETWEEN ESSENCE AND EXISTENCE IN THE CREATURES The essences of creatures, signified by their definitions, are really distinct from their existence, the actuality of their essence, signified in them by the term 'being' (in its first sense).

CAUSA PRIMA

In this lecture, first I'm going to discuss the conceptual connections between Aristotelian essentialism and medieval Christian natural theology. From these general considerations I shall move on to a detailed discussion of St. Anselm's ontological argument, and then to a further discussion of the general philosophical lessons we can draw from St. Thomas Aquinas's rejection of this argument and his own approach to natural theology.

As we know, historically one of the key figures in establishing the conceptual connections between Aristotelian essentialism and Christian theology was Boethius. In fact, it would be interesting to show exactly how Boethius's work, along with the works of other patristic writers, especially St. Augustine, had transmitted and transformed some basic philosophical concepts of Aristotle's philosophy, well before Aristotle's original philosophical works, especially his *Physics* and *Metaphysics*, were recovered for the West in the 12th century. However, since this would be impossible to do in this lecture, instead of tracing the actual historical development of the relevant ideas, let me sketch here briefly why Aristotelian essentialism could be conceptually a suitable framework for the evolution of medieval natural theology, and so how it could contribute to the evolution of the medieval philosophical concept of God. Therefore, what I am going to provide here is not an actual "history of ideas", but rather a reconstruction of the logical connections between some historical, and historically sometimes quite distant ideas.

As we know from Aristotle's *Physics* and *Metaphysics*, the Aristotelian conception of causation is intimately connected with essentialism. For a cause is something that accounts for the being or so-being of something else. And, since for a thing to be somehow is for it to have some attributes, the question of what the cause of this or that phenomenon is boils down to the question of what accounts for a thing's having this or that attribute. But we know that some attributes belong to a thing on account of its essential principles, namely on account of its matter and substantial form. So the form and matter of a thing are causes, indeed, the essential, intrinsic causes of the thing's being the kind of thing it is and of its having its essential attributes. In fact, if having this or that attribute depends *only* on these intrinsic principles, then by giving an account of having this attribute in terms of the nature of the thing we reach a final explanation for the phenomenon in question. For example, if water is indeed what we believe it to be, namely a compound consisting of H₂O molecules, and this accounts for the fact that the freezing point of water is 0 °C, then by giving an explanation of the fact that water freezes at 0 °C in terms of the molecular structure of water we have reached a final explanation, where no further question makes sense regarding why water has this attribute.

On the other hand, when it comes to accidental attributes, the situation is different. Since the presence of accidental attributes of a thing cannot be accounted for in terms of its essential principles alone as this is precisely what renders them accidental -, in accounting for the presence of some accidental attribute of the thing we have to refer to something else. Now this something else is what we call the efficient cause, namely that which by some active principle inherent in it brings it about that the thing has the attribute we originally wanted to account for.

But this explanation, in terms of the action of the efficient cause, does not necessarily give us a final explanation. For if the efficient does not have the active principle by which it brings about its effect essentially, then the presence of this active principle in the efficient is itself in need of further explanation, again, in terms of the activity of yet another agent. And this need for a further explanation re-occurs every time, when we are unable to give an explanation for the presence of such an active principle in the agent in terms of the nature of the agent itself. So only then shall we arrive at a final explanation, when we are able to give an explanation of the presence of the active principle of an agent in terms of the nature, or essence of the agent. However, even so, when we do reach such a final explanation of the presence of some particular attribute in some thing, namely, with reference to the nature of the ultimate cause of the presence of this attribute, we have still not accounted for the very fact that this ultimate cause actually has this nature, namely, that it exists at all. So even this final explanation is final only relative to the presupposition of the existence of the nature of the cause. But then, if the existence of this nature is not accounted for by this nature itself, then, again, we have to look for some external cause that accounts for the existence of this nature. And so we shall reach an absolutely final explanation only if we reach a cause, the nature of which in itself accounts for the very existence of this nature, namely, the existence of which is its nature.

Now that things around us in the world do not have all their attributes essentially is most manifest from the fact that these things undergo change during their existence. For what changes acquires an attribute that it previously did not have. But then it is clear that this attribute is not an essential attribute of the thing, since the thing necessarily has all its essential attributes during all the time of its existence, from beginning to end. So the appearance of such an attribute by change calls for an explanation with reference to an external, efficient cause. And then, further, the explanation should not be with reference only to a cause whose active principle is accidental to it, but with reference to a cause that has this active principle in its nature. And if the nature of the cause so arrived at is still not self-sufficient, then, again, we have to look for something that by its activity accounts for the subsistence of this nature, and so on, until we arrive at something self-sufficient, whose nature in itself accounts for its existence, for its nature is its existence.

Now the cause in virtue of which another cause acts is what we call a superior cause, and the cause which acts in virtue of the superior cause, we call an inferior cause. But a superior cause is always a more general cause, exerting its activity in a more general respect, and therefore, accounting for the activity of a whole class of inferior causes. To use Aristotle's example, this man is the cause of the generation of this other man. But this man could not possibly cause life, if he himself were not alive. So what accounts for the generation of this man is not only the activity of his particular inferior cause, his father, actualizing another individual human nature, but also the general cause of life on this Earth, keeping both father and son alive. And this is why Aristotle says that "man is begotten by man and by the Sun as well". But if the superior cause that we arrive at in a particular series of causes is still not self-sufficient, then we must proceed again, to a further, even more superior, and more general cause. But in all kinds of causes the precondition of all activity is their very actuality, that is, their very being. On the other hand, being is the most universal aspect of all kinds of actuality. So the most universal cause is going to be that unique cause, which by its activity accounts for the being and activity of all others. So whichever possible particular effect we take, in considering the

series of causes that produce this effect, we always arrive at the same ultimate cause, in virtue of which all these particular causes act, and produce their effects in actuality. And this is that ultimate cause whose actuality calls for no further explanation, for being the proper cause of all existence, that is, all kinds of actuality, its nature is nothing but its own existence, that is, actuality, in an absolute sense.

Now since the cause always has to be actual in respect of what it causes, and the first cause is the cause of everything that there is and will be or can be, this first cause has to be always actual in all possible respects. But then it has to be itself unchangeable, for having all possible kinds of actuality in itself, it cannot acquire by change some sort of actuality that it does not already have.

But of course it cannot have all these kinds of actuality in exactly the same way as they are found in its ultimate effects, in the way they are adequately conceived by us in these effects, for in this way they are limited to the determinate natures of these effects, whence in this way they are incompatible. On the other hand, the ultimate source of their actuality has in itself all these kinds of actuality together in a single, indivisible act, which is its very essence, which therefore comprises all these sorts of actuality. But of this essence we cannot have an adequate formal concept, as our adequate formal concepts derive precisely from those finite, divided sorts of actuality that we conceive in the objects of our perception. As a consequence, of this infinite actuality we can have only some approximate, analogical conception, which we can form by denying of it all limitations and imperfections that we find in its effects, from which our adequate concepts derive, and by attributing to it all perfections we can conceive of, as to the unique source of all these perfections, but at the same time knowing that its perfection exceeds all perfections we can conceive of.

So on the Aristotelian conception of causality, based upon the idea of accounting for some sort of actuality ultimately in terms of the nature of the thing bringing about this actuality, it is necessary to arrive at the idea of an Unmoved Mover, a Prime Cause, that being itself the plenitude of actuality is the source of all actuality, that is, all being. As such, therefore, the Prime Cause has to contain all perfections its effects have, but in a superior manner, united and undivided, untainted by the limitations and imperfections with which they can occur in the things of some limited nature. Therefore the Prime Cause is living, intelligent, good and free. Indeed, more living, than any living thing from which we acquire our concept of life, and more intelligent than anything from which we can acquire our concept of intelligence, has more freedom than any freedom we can think of, and better than any good we can conceive. But then its action is purposive, that is, whatever it causes, it causes to some end. But since the Prime Cause is good, this end must be something good, too. And since the Prime Cause is the Ultimate Good, being the only self-sufficient and omniperfect good, it must be this Ultimate End itself. So the Prime Cause is not only the first efficient, but also the ultimate final cause, which directs everything to itself, not by coercion and against their nature, but on the contrary, precisely by giving them their nature, by which they can share in its perfections, as much as they can, as much as their limited nature allows them to do so. But it is precisely such a Prime Cause and Ultimate End that all people call God.

In view of these considerations, no wonder that Aristotelian speculations about the Prime Mover, as the ultimate source of all actuality, being itself of infinite actuality, could serve

even centuries later as a suitable framework for Christian, as well as Jewish and Muslim, theologians for their considerations concerning the existence and nature of God, insofar as these could be recognized by the use of natural reason alone, unaided by divine revelation. In fact, it was in such a context that even earlier, in the late antiquity, Aristotle was partly reconciled with Plato in the works of Neoplatonic philosophers, like Plotinus or Porphyry, and platonizing theologians, like St. Augustine, Pseudo-Dionysius Areopagites and Boethius, by positing Plato's ideas in the Divine Intelligence. Plato's ideas in this context got reinterpreted as the archetypes of the whole creation, by which, in a single, undivided, eternal glimpse God contemplates his own infinite existence in all those possible ways in which this infinite and complete existence is imitable by any possible finite nature, which will get actual by participating in the emanation of this infinite actuality.

So Aristotle's Prime Cause, interpreted in this Neoplatonic vein, could quite naturally harmonize with the religious idea of a loving, provident, omnipotent and just God, who lives an omnipotent, eternal life above all times. Evidently, in the light of the previous considerations, Boethius's definition of eternity in his *Consolations*: "the total, simultaneous, perfect possession of interminable life", as a description of the form of divine existence, can justly be regarded as providing just a further explication of the Aristotelian idea of the infinite actuality of the First Cause. On the other hand, of course, this does not mean that Aristotle had had exactly the same concept of deity as Boethius did. Nor does this mean that Boethius or later theologians were merely writing glosses on an original Aristotelian idea. As a matter of historical fact, Aristotle's own philosophical-theological arguments in the *Physics* and the *Metaphysics* did not have any serious, direct influence in the West until their re-discovery in the 12th century. What this means is only that the more general Aristotelian ideas of essentialism, causation, and the necessity of an all-actual first cause combined with Neoplatonic theological speculations provided such a suitable conceptual framework, with which the genuinely religious idea of deity could in principle quite harmoniously fit in. Indeed, it is precisely this "embedding" of the concept of deity into such a philosophical context that rendered it suitable for further rigorous speculation and further enrichment, just as we can see this in the works of Boethius and St. Augustine.

It was this highly enriched and refined theological-philosophical concept, that, coupled with the ingenuity of an original and gifted mind, gave rise to a new train of thought about the existence and nature of God, in Saint Anselm's *Proslogion* in the 11th century.

In particular, Anselm's argument trying to establish God's real existence on the basis of what we are supposed to think of when we hear His name a later version of which was dubbed by Kant "the ontological argument" has had a tremendous career.

Spelled out in more detail than in Anselm's own text, the argument can be stated as follows:

By the meaning of the term,

(1) God is that than which nothing greater can be thought of

But if you understand what I just said, then you have to think of that than which nothing greater can be thought of, and, since whatever is thought of is in the intellect, as its object, we have to concede that

(2) that than which nothing greater can be thought of is in the intellect

Now let's suppose that what is so thought of is *only* in the intellect, that is

(*) that than which nothing greater can be thought of is not in reality

But certainly whatever is in reality, i.e., what exists, is greater than anything that is only in the intellect, for of course what is in reality is greater in reality, that is, in being and actual perfection, than anything that is not in reality at all, i.e., that does not exist, so

(3) anything that can be thought to be in reality can be thought to be greater than anything that is in the intellect but is not in reality

And it cannot be doubted either that

(4) that than which nothing greater can be thought of can be thought to be in reality

So something can be thought to be in reality, which therefore can be thought to be greater than anything that is only in the intellect, and so, if that than which nothing greater can be thought of is only in the intellect, then

(5) Something can be thought to be greater than that than which nothing greater can be thought of

that is, something can be thought to be greater than which nothing can be thought to be greater, which is a contradiction. But then, since all the other premises are evidently true, we have to abandon our supposition (*) that God, that than which nothing greater can be thought of, is not in reality. So He has to exist in reality.

Evidently, this piece of reasoning cannot be torpedoed on the basis that it presupposes that there is something than which nothing greater can be thought of, as it only requires that something is *thought of* than which nothing greater can be thought of. But Anselm makes it clear that anyone who claims to understand the phrase "that than which nothing greater can be thought of" has to think of something than which nothing greater can be thought of, which, therefore, being thought of, is in the intellect, as its object. By the above argument we can see, however, that it cannot be *only* in the intellect, whence we concluded that it has to be in reality, too.

It seems, therefore, that all Anselm's proof requires is that modicum of rationality that is needed to understand a simple descriptive phrase, to reflect on what the description implies, and to conclude to these implications concerning the thought object one has in mind as a result of understanding the description.

Indeed, the next argument requires no more either. If you understand the phrase "something which cannot be thought not to exist", you have to think of something which cannot be thought not to exist. But what cannot be thought not to exist is certainly greater than anything that can be thought not to exist. So, if that than which nothing greater can be thought of were something that can be thought not to exist, then something greater than that than which nothing greater can be thought of could be thought of, which is

impossible. So, that than which greater cannot be thought of cannot be thought not to exist.

But already Anselm himself, as well as later on Gaunilo, had to realize at once that such a simple proof is not necessarily “foolproof”. For the recalcitrant Fool of the Psalms can immediately turn Anselm’s second argument around, pointing out that Anselm’s second conclusion denies the obvious, namely that God can be thought not to exist, as his (the Fool’s) own example shows.

Anselm’s retort, that the Fool’s denial was possible in the first place only because he is truly a fool, thoughtlessly mumbling words he himself does not understand, leads us directly to the crux of the very possibility of a dialogue between the Saint and the Fool, or put in less biased terms, between the theist and the atheist. For, evidently, to avoid a complete breakdown of communication, some basic requirements of rationality should be met equally on both sides. So clarifying these basic requirements is in the best interest of both parties. Let us see, therefore, which are those basic requirements of rationality that the Fool seems to fail to meet.

Anselm claims that when the Fool said in his heart: “There is no God” he could do so only because he did not know correctly what he was speaking about (no matter whether aloud or just to himself), as he simply did not understand the word “God” properly. Thus far, the Fool is not guilty of irrationality, only of ignorance of the proper meaning of an expression. If I say “An isosceles has four sides”, of course I am talking nonsense, but I may think that the word “isosceles” in English refers to squares, in which case what *I mean* by this sentence makes perfect sense, although what *the sentence means* is nonsense. If, however, someone tells me that the word “isosceles” in English refers to plane figures having just three sides, two of which are equal, the situation is different. If I claim to understand this explanation, I cannot stick any longer with my previous assertion and be not guilty of irrationality, as I assent to what I know to be impossible, which is at least a sure sign of irrationality.

But Anselm’s charge is precisely that once the atheist is told what the word “God” means, the first argument shows him that he cannot assent to his original claim on pain of contradiction. So he cannot assent to it, except irrationally, and, therefore, if he insists on his denial, he deserves to be called a fool.

Consequently, in view of the validity of Anselm’s reasoning, the only way the atheist can rationally maintain his position is by denying one of Anselm’s premises. Of course, it would be foolish of him to challenge the theist’s “meaning-postulates”, since this would at once disqualify him as an intelligent interlocutor. So this leaves him with denying either that God can be thought to exist in reality, or that God, that than which nothing greater can be thought of, is even in the intellect.

Choosing the first alternative would amount to claiming that God’s concept is contradictory. Establishing this claim might require from the atheist a specification of his concept of God, which may very well be contradictory, but can easily be dismissed by the theist as inadequate. In any case, in Anselm’s argument the concept of God to be employed is adequately specified by the first premise, and the atheist would probably be hard pressed to show that the description “that than which nothing greater can be thought of” is self-contradictory.

At this point, however, the atheist may shift the burden of proof by saying that even if this description does not seem to contain any *prima facie* contradiction, it may well be contradictory. By way of analogy, he may bring up the description: “the greatest prime number”, which, on the face of it, does not appear to be contradictory, so it seems to refer to the greatest prime number. But, as we know from Euclid, the assumption that there is a greatest prime number leads to contradiction, so the description cannot refer to anything.

In response, the theist first of all can point to the whole tradition of rational (as opposed to mystical) theology showing how apparent contradictions concerning God’s nature are resolved. Second, he can say that a contradiction, if derivable at all, could be derived from this description only with the help of other assumptions, just as in the case of the greatest prime. But, unlike the case of the greatest prime, these auxiliary assumptions probably need not be accepted as true. Finally, concerning Anselm’s argument one can also say that the premise attacked by the atheist does not even require that Anselm’s description be free from such implied contradictions. For the premise requires only that *one can think* that God (under Anselm’s description) exists, which one can do even with the greatest prime, until one actually realizes the implied contradiction. So the burden of proof presses the shoulders of the atheist again, if he wishes to challenge this premise. Therefore, he has to turn to the other premise anyway, asking whether he has to admit God as at least a possible object of thought.

In response to this question the atheist now may claim that the way Anselm wishes to force him to think of God will not make him admit that God is even in the intellect, at least, in his intellect, despite the fact that he understands very well what Anselm means by his description, which may not be contradictory after all. For understanding this description does not require him to believe that it applies to anything, so understanding this description will not make him think of anything that he thinks to be such that nothing greater than it can be thought of. So, since he denies that the description applies to any thought object he can think of, he just does not have such a thought object in his mind, while he perfectly understands what is meant by this description.

But here the theist swoops down: of course the atheist is just a fool! indeed, a wicked fool, who, only because of his insistent denial, admits to be simply unable to think of the same thought object that I think of, that is, God. With this last move the atheist just revealed himself for the miserable fool he is, for just in order to maintain his untenable position, he simply gives up his otherwise natural human ability to think of God, that than which nothing greater can be thought of.

So it seems that the theist now may claim that, as a result of his denial, the atheist just rendered himself unable to think of an otherwise humanly thinkable thought object. By denying the existence of God, it seems that the atheist will never be able to think of the same God as the theist, whose conception of God logically implies the existence of God, as Anselm’s proof shows.

At this point, however, we have to notice that the atheist may consistently maintain his position even despite the validity of Anselm’s argument, and still claim that he is able to think of the same thought object as the theist, so the theist has no reason to doubt his mental abilities. In particular, the atheist can say that when Anselm thinks of that than which nothing greater can be thought of, Anselm does have a thought object in mind

which Anselm thinks satisfies his description, along with all its implications. The atheist, however, can then think of the same thought object, as that of which Anselm thinks that it is that than which nothing greater can be thought of, but not think that this description in fact applies to it, whence he is not forced to conclude to whatever valid implications the description may have concerning that thought object.

So the atheist can claim that he perfectly understands Anselm's description, and still deny that he has in mind something of which he thinks satisfies Anselm's description. At the same time he can also point out that this does not prevent him from thinking of Anselm's thought object. So Anselm's proof will not convert the atheist, who does not share Anselm's belief that his description applies to something, though he understands that many people have this belief, and he is even able to identify the object of this belief, as that fiction, the God of the religious.

Thus, the atheist, when speaking about God, is constantly using the theist's beliefs to refer to God, but without ever sharing them. Accordingly, he will be willing to admit that whoever thinks of something as that than which nothing greater can be thought of also has to think that this thing exists in reality, and that it cannot even be thought not to exist in reality. Being a consistent atheist, however, he himself will think of nothing as that than which nothing greater can be thought of (whence that than which nothing greater can be thought of, as such, will not be in his mind). But he still will be able to think of what theists think of as that than which nothing greater can be thought of.

Now it seems that St. Thomas Aquinas was perfectly aware of this possibility to evade the force of Anselm's reasoning. As he wrote in his *Summa contra Gentiles*:

"... granted that by the name 'God' everyone understands that than which greater cannot be thought of, it does not follow that there is something than which greater cannot be thought of in the nature of things. For we have to posit the name and its interpretation in the same way. Now from the fact that what is indicated by the name 'God' is conceived by the mind, it does not follow that God exists, except in the intellect. Whence it is not necessary either that that than which greater cannot be thought of exists, except in the intellect. And from this it does not follow that there is something than which greater cannot be thought of in the nature of things. And so *no inconsistency is involved in the position of those who think that God does not exist: for no inconsistency is involved in being able, for any given thing either in the intellect or in reality, to think something greater, except for those who concede that there is something than which a greater cannot be thought of in the nature of things.*"

In this passage Aquinas explicitly refers to the asymmetry in the positions of the theist and the atheist with respect to Anselm's argument. Those who think of God as that than which nothing greater can be thought of cannot think that He does not exist, save inconsistently. For those, however, who think that for any thought object a greater is thinkable, no inconsistency arises, when they think of what in their view is mistakenly believed by the theists to satisfy this description, which, in their view, exists only in the theists' intellect.

Anselm's argument, therefore, can be compelling only for those whose "universe" of thought objects already contains a thought object than which, they think, nothing greater is thinkable, and who are therefore already willing to think of something as that than

which nothing greater can be thought of. This willingness, however, cannot be forced by Anselm's argument on anyone, whose "universe" of thought objects does not contain such a thought object. Such a person has to be persuaded first to be willing to think of something as that than which no greater is thinkable. But this cannot be achieved by simply telling him to think of what the description applies to, as he simply does not think the description applies to anything, although, of course, he believes that others think it applies to something.

As can be seen, what helps the atheist maintain the consistency of his position is his isolating the theist's thought objects from his own: when it comes to giving a consistent account of the world as he sees it, the beliefs concerning God are simply irrelevant to the atheist (except insofar as belief in God influences the thinking and behavior of religious people), as these beliefs do not concern his own thought objects, those that he himself is committed to. So to prove for the atheist that there is a God requires showing him that given the domain of thought objects he is already committed to, he is also committed to something that the theist can justifiably identify for him as God.

Now this seems to be precisely Aquinas' program of natural theology in the *Summa Theologiae*. Given our normal everyday commitment to objects of the empirical, physical world, Aquinas' proofs for God's existence intend to show us that by this commitment we are also committed to a Prime Mover, a First Cause, a First Necessary Being, etc., which, he says, are all what a theist would identify as God ("et hoc dicimus Deum"). Then he goes on to show us that God, to whom we are thus committed, is simple, perfect, good, infinite, ubiquitous, immutable, eternal and one. In this way the atheist is not allowed to keep God in isolation from his own beliefs. Indeed, throughout Aquinas' argumentation no single description is given which would presumably give the full meaning of the term 'God' for the atheist, in the possession of which he could claim to have a full grasp of the meaning of this term, and then use it to refer to what he thinks only the theist believes satisfies this term. Instead, the term is given a gradually growing content with every conclusion concerning the thing to which we are already committed under five different descriptions, in virtue of the existence proofs. So, no wonder that the two questions in the *Summa Theologiae* following these considerations are precisely Aquinas' systematic reflections on how we analogically "stretch" our mundane concepts to have a contentful concept of God, and how this concept enables us to speak about God.

Now the actual ways Aquinas builds on his readers' existing commitments are apparently all too closely tied up with certain particular features of the Aristotelian world view. So no wonder that with the demise of this world-view, also Aquinas's ways lost from their persuasive force.

On the other hand, whether or not anyone ever is going to be able to come up with an unshakable proof for God's existence, certainly no human being can neglect reflecting at least on the very idea of there being a God. But then, even if it should be impossible for us in this life to acquire a formally adequate concept of God, whether we believe or not, we definitely can, and have to, learn at least what and how we are supposed to think of when speaking about God. And our most reliable teachers in this matter will always be those great spirits of the past, to whom we owe it that we have this very concept, by which perhaps "now we see through a glass, darkly", but without which nobody can even hope to see "then, face to face".

THE LAST SCHOLASTIC: DESCARTES

Descartes's philosophy is usually regarded as opening a new chapter in the history of philosophy, namely, modern philosophy. Now what is it that renders Descartes particularly modern, as opposed to his immediate predecessors, or even to some of his contemporaries and successors? Well, certainly not his main conclusions, namely the existence of God and the real distinction of the body from the soul. But the same can be said about his arguments as well. The skeptical arguments of the first meditation, as was pointed out already by Hobbes, were common stock of Academic philosophy. The most powerful skeptical argument, the Demon argument, is based on medieval theological considerations concerning divine omnipotence, and was already anticipated by Nicole d'Autrecourt in the 14th century. The intuitive certainty of cogitation is an old Augustinian idea reinforced in the Scotist and Ockhamist schools, the proofs for the existence of God are modeled after those in general currency among Scholastic theologians and philosophers, and the proof of the real distinction between body and soul is quite the same as Aquinas's proof of the real distinction between essence and existence in the creatures.

In fact, Descartes himself does not even claim originality in this regard. As he wrote in the "Dedicatory letter to the Sorbonne": "... I think that when properly understood almost all the arguments that have been put forward on these issues by the great men have the force of demonstrations, and I am convinced that it is scarcely possible to provide any arguments which have not already been produced by someone else." (p. 4.)

What is the novelty, then, in Descartes's philosophy? Well, if it is not so much the arguments themselves, then it is rather the arrangement and the general intent of these arguments, inviting us to take an entirely new attitude towards what can be known by us.

Indeed, I should rather have said: "what can be known by ME", where this "ME" stands just for any of us. For the acquisition of knowledge is certainly not a collective effort for Descartes. Learning about the arguments of others, indeed, getting convinced by them, even through a genuine grasp and understanding of them, may be a good exercise of comprehension and memory, but has nothing to do with the acquisition of knowledge for Descartes. As in his *Regulae* he remarks, even if we learned by heart all the arguments of Plato and Aristotle, in this way "we would acquire knowledge not of a science, but of history". (AT. x. 367.)

To be sure, this remark has a much deeper significance in the context of Descartes's thought than the commonplace truth that we should think over everything for ourselves to deliver a sound judgment on anything. For Descartes this means building up everything in our intellectual edifice by ourselves, starting from scratch. It means a total break with all kinds of preconceived opinions, indeed, it means a total break with intellectual history, in general. Compare this with the way medieval philosophers and theologians treated Aristotle, the Philosopher, and you'll have an idea what makes Descartes's attitude new in this regard. To use the medieval simile recently re-popularized by Umberto Eco, if the medievals conceived of themselves as dwarfs sitting on the shoulders of giants, then Descartes is the first dwarf to pretend, at least for the sake of exercise, that he is not sitting on the shoulders of any giant.

In his Discourse on Method, Descartes describes in autobiographical detail how, having found no certainty in the sciences he was taught in school, he set out on a search for some firm foundation for knowledge:

“One of the first considerations that occurred to me was that there is very often less perfection in the works composed of several portions, and carried out by the hands of various masters, than in those on which one individual alone has worked. Thus we see that buildings planned and carried out by one architect alone are usually more beautiful and better proportioned than those which many have tried to put in order and improve, making use of old walls which were built with other ends in view. ... And similarly I thought that the sciences found in books in those at least whose reasonings are only probable and have no demonstrations, composed as they are of the gradually accumulated opinions of many individuals do not approach so near to the truth as the simple reasoning which a man of common sense can quite naturally carry out respecting the things which come immediately before him. ... It is true that we do not find that all the houses in a town are rased to the ground for the sole reason that the town is to be rebuilt in another fashion, with streets made more beautiful; but at the same time we see that many people cause their own houses to be knocked down in order to rebuild them, and that sometimes they are forced to do so where there is danger of the houses falling of themselves, and when the foundations are not secure. From such examples I argued to myself that there was no plausibility in the claim of any private individual to reform a state by altering everything, and by overturning it throughout, in order to set it right again. Nor is it likewise probable that the whole body of the Sciences, or the order of teaching established by the Schools, should be reformed. But as regards all the opinions which up to this time I had embraced, I thought I could not do better than endeavor once for all to sweep them completely away, so that they might be replaced, either by others, which were better, or by the same, when I had made them conform to the uniformity of a rational scheme.” (part ii.)

So finding certain knowledge for Descartes is a completely individual enterprise, which has to start with the demolition of all opinions in which one finds “at least some reason for doubt”. (p. 12.) So Descartes’s First Meditation is devoted to a systematic investigation of those opinions which we generally hold to be certain and true, to see whether they are indeed as indubitable as we usually treat them or not.

In the course of this investigation we can observe a systematic progress of this methodical doubt.

At the first step in this progress, doubt attaches to opinions whose truth requires the obtaining of some perceptible state of affairs. If the perception is unclear, we cannot be sure whether what we perceive is indeed the state of affairs required for the truth of the opinion. However, if we manage somehow to clarify this perception, we are usually quite sure that what we perceive is indeed what justifies our opinion. For example, the proposition: “The red tower in front of me is round” may not be verifiable by someone seeing the tower from afar on the basis of his actual perception of the tower. But by moving closer he can clarify this perception, so that it will clearly identify for him the relevant state of affairs, namely, that the tower is in fact red and round, and not white and square, for example, which only seemed to be red and round from afar, in the light of sunset. Primary, or ordinary doubt, therefore, can normally be overcome by “taking a

closer look”, by putting the perceiver in a position in which the new perception itself clearly identifies for him the required state of affairs.

Secondary doubt erodes the confidence in the match between even such clear perceptions and the required states of affairs. A however clear perception of the object in front of me may not necessarily correspond to the required state of affairs: a clear red-round-tower-perception may not be a reliable indication that there is a red, round tower in front of me, because this clear perception may be as chimerical as anything produced by my imagination, as in a vivid dream. So even very clear and distinct sense-perceptions may not serve as unshakable grounds for certainty concerning this type of propositions.

On the other hand, since works of imagination are put together from simple veridical perceptions as their components, this type of doubt may leave the reliability of at least some perceptions intact, namely of those simple perceptions which serve as the material for any possible fiction of our imagination. But then these simple perceptions may do good service in the verification of at least some opinions, namely those whose truth requires the obtaining of a state of affairs that is identifiable on the basis of these simple perceptions alone.

For example, suppose my clear red-round-tower-perception is chimerical, because there are no such things as red towers, with some real color, but there are, say, only extended substances with no further real, perceptible qualities. Suppose that what we perceive as color is just the structure of the surface of things determining the way they reflect light. So it seems that the proposition “The tower in front of me is red” is, strictly speaking, false, for there is nothing like redness in any object at all, as there are only material objects with purely spatial, geometrical properties. Nevertheless, another opinion, say, “The cylindrical object having such and such a surface in front of me is round” may still be true and verified by my clear red-round-tower-perception. Indeed, with my sunglasses on I would see different colors, so I could not reliably verify my former proposition involving reference to a color. But the second proposition, involving reference to geometrical properties alone, could still be verifiable by me regardless of the unreliability of my perception of color.

Secondary doubt allows for the possibility of our being doomed by nature to “wear sunglasses”, as it were, subtly misrepresenting reality, but still allowing us to make correct judgments about some aspects of it. The role of science, then, would be to take away these subtle distortions of ordinary experience, thereby establishing the pure truth of the matter. So, if we live in a “geometrical world” of extended substances with no other perceptible qualities, propositions of applied mathematics may be true, but other propositions, involving reference to other perceptible qualities, are strictly speaking false, though they may serve well some practical necessities of our “glasses-bound” human life.

Tertiary or metaphysical doubt deprives even such simple, geometrical perceptions of their reliability, by presenting them as possibly produced by God, not representing anything that they appear to represent. Thus, my clear red-round-tower-perception would not justify even the proposition: “The cylindrical object in front of me is round”, there being nothing at all to verify even this opinion. So divine omnipotence may be invoked to shake the foundations even of applied mathematics. But even without the assumption of divine omnipotence, if there is only a logical possibility of having the very same clear

perceptions, without their corresponding objects, as e.g. in a perfect “virtual reality” program, then we have sufficient reason to doubt the reliability of these perceptions too.

Still, even this type of doubt may not shake the foundations of pure mathematics, whose propositions do not require the obtaining of any, geometrical or otherwise, actual state of affairs. So, e.g. the proposition: “Any cylindrical object is round” may be true and certain, even if there is no physical world at all.

But, of course, this is not the end of the story. For even if these propositions require for their truth nothing but their being logically derivable from axioms, which themselves are true on the basis of the pure logical connections of the ideas making them up, by pure feebleness of nature I may always be wrong in my judgment about these logical connections, even if, perhaps, in principle I could correctly conceive of them. Hence the proposition: “Any cylindrical object is round” may be false, being in fact underivable from axioms of geometry, even if I may find the derivation correct, whenever I check it.

Furthermore, it may also be the case that even propositions of pure mathematics do in fact require something more for their truth, than just the by me in principle conceivable logical connections of mathematical ideas. Hence, the proposition: “Any cylindrical object is round” could be false, on account of the obtaining of some non-physical situation in which some cylindrical object is not round. To be sure, such a situation is absolutely inconceivable to me, given the logical connection of my ideas of cylindrical shape and roundness, but it is perhaps conceivable by a higher intelligence, such as God, who has more comprehensive concepts of all possible things, and for whom, therefore, several things may be possible which are by me inconceivable. So by Divine Omnipotence it may be quite possible that the properties conceived by my ideas of cylindrical shape and roundness could be separated in some weird, by me inconceivable reality, which does verify the negation of my mathematical proposition, namely, in which some cylindrical objects are not round.

That this is indeed a possibility that Descartes seriously entertained is made clear e.g. in a letter he wrote to Arnauld: “it does not seem to me that we should ever say it of anything that it cannot be done by God; for, since the whole nature of what is good and true depends on His omnipotence, I would not even dare to say that God cannot make a mountain without a valley, or that one plus two does not equal three; I only say that He gave me such a mind that I cannot conceive a mountain without a valley, or that the sum of one and two is not three, etc.; <I only say> that such and the like imply a contradiction in my conception”. (Cronin, p.63.)

But then it should seem that simply nothing can be certain. For we can be certain of the truth of anything either by sense perception, or by clear reasoning, realizing the logical connections of our ideas. But we have found reason for doubt in all kinds of propositions, whether they could have been justified in the one, or in the other way.

Or is there something that could resist even such an extreme, metaphysical doubt? Well, if I’m being deceived by a however powerful deceiver, it is at least clear that I’m being deceived, that is, I think something to be true what is false. And even if I don’t think it to be true, but I doubt it, I’m still certainly thinking, for doubting is just a kind of thinking. And if I’m thinking all the time, while I’m thrown in this whirl of doubts, I certainly am, I am existing, for thinking is a kind of existing. But then I just hit upon something so

certain, so evident and so unshakable that its evidence alone guarantees its truth: for let me be deceived even by an omnipotent deceiver, this very fact that I am being deceived, guarantees the truth of what I now so clearly and distinctly perceive, namely that I exist. The point in the certainty of this claim is that it requires nothing external at all for its justification: neither an external physical world, including my own body, nor the obtaining of any kind of possibly non-physical objective state of affairs which could be perceived mistakenly by my intellect; for the truth of this claim is guaranteed by my simply being aware of it.

Well, so far so good. I have at least one truth whose certainty is such that I can have no reason to doubt it, for my very doubt verifies it. Indeed, I can know that it is true on the sole basis of clearly and distinctly perceiving it and what is required for its truth.

Now is there anything else of such unshakable certainty among my opinions? Well, the mathematical truths and generally all truths of reason had previously seemed to be precisely of the same clarity before I found some reason for doubt in them. For they also had seemed to be true and indubitable just on the basis of their clear and distinct perception. And the only reason for doubting them was the metaphysical possibility of there being an omnipotent deceiver, on whose will even these truths may have depended. So I have to make sure first about this omnipotent agent, namely, whether there is any, and if so, whether it can be a deceiver.

Now here we arrived at a crucial point in Descartes's reasoning. The only unshakable certainty so far is that of cogitation: I am in doubt, I am thinking, I am, I am a thinking thing, these all are propositions whose truth cannot be undermined even by metaphysical doubt, for the very act of metaphysical doubt at once verifies them all. But since this act is thinking, which always has to have some intrinsic object, for there cannot be thinking which is thinking of nothing, we also have to be able to know with certainty something about the objects of this act too.

To be sure, sometimes it may not be fully clear what is the object of an act of thought, since our thinking tends to wander about, but when we firmly fix our minds on a certain thought object, we can have as clear a perception of this object as clear is the fact that we think. Indeed, it is precisely the clear perception of the thought object that makes us aware of the fact that we are thinking at all.

“Now” as in his Second Replies Descartes himself expounds this step in his reasoning “some of these perceptions are so transparently clear and at the same time so simple that we cannot ever think of them without believing them to be true. The fact that I exist so long as I am thinking, or that what is done cannot be undone, are examples of truths in respect of which we manifestly possess this kind of certainty. For we cannot doubt them unless we think of them; but we cannot think of them, without at the same time believing they are true, as was supposed. Hence, we cannot doubt them without at the same time believing they are true; that is, we can never doubt them.” (p. 105.)

So just like the very act of doubt verifies that I am thinking, so the very act of thinking of these simple truths, eliminates the possibility of doubting them. But, then, how was it possible to doubt them in the first place?

Again, as Descartes in his replies explains, doubt can attach to these simple truths only when we are not actually considering them. For when we actually clearly and distinctly perceive them, by this very perception we perceive their truth. On the other hand, when we just remember having considered them, but we do not actually consider them, we may think that at the time when we were considering them we were deceived by an omnipotent deceiver. So, again, even if we can be sure about them actually, when we are in fact considering them, we cannot be sure about them habitually unless we know that we were not deceived at any time when we were considering them.

Indeed, this is precisely the way Descartes presents his point already in the Third Meditation, when he says: "... whenever my preconceived belief in the supreme power of God comes to my mind, I cannot but admit that it would be easy for him, if he so desired, to bring it about that I go wrong even in those matters which I think I see utterly clearly with my mind's eye. Yet, when I turn to the things themselves which I think perceive very clearly, I am so convinced by them that I spontaneously declare: let whoever can do so deceive me, he will never bring it about that I am nothing, so long as I continue to think I am something; or make it true at some future time that I have never existed, since it is now true that I exist; or bring it about that two and three added together are more or less than five, or anything of this kind in which I see a manifest contradiction." (p. 25.)

So there can be no doubt in anything which I actually perceive to be such that its denial would involve a manifest contradiction, or as a couple of paragraphs later Descartes puts it: "Whatever is revealed to me by the natural light for example that from the fact that I am doubting it follows that I exist, and so on cannot in any way be open to doubt."

But in order to be able to have also habitual certainty of what I can be so sure of when I actually consider them, I have to give my actual consideration to the question whether God exists, and whether He can be a deceiver. As at the moment I know of nothing with certainty, except myself and my ideas, to do so, I have to consider my idea of God in comparison to all the other ideas I have.

Now these ideas insofar as they all are acts of my mind are certainly not different from one another, as they are equally just certain actual states, modes, or in Aristotelian terms, just actual accidents of my mind. They widely differ, however, in what they represent, or at least appear to represent to my mind. For even if there is nothing in actual reality corresponding to these different ideas, it is clear that they appear to represent different objects, and that these different objects would be different in their degree of perfection and reality, if they existed. This is what Descartes expresses by saying that some of these ideas contain more objective reality than others. So ideas have exactly the same degree of actual reality insofar as they are actual accidents of my mind. But they contain different degrees of objective reality, depending on what degree of actual reality their objects would have, if they actually existed, whether this is really the case or not. For example, my idea of a centaur has more objective reality than that of a stone, for if a centaur really existed, then, being a living thing, it would be more perfect than a lifeless stone, whatever the actual situation is, whether there really are centaurs and/or stones or not. Again, my idea of walking contains less objective reality than that of a man. For even if there are no men, and therefore no acts of walking either, a man, if he existed, would be more perfect than his act of walking, for the man could exist without this act, but not conversely.

Now it is certain that the idea of God contains the most objective reality of all of my ideas, as this is the idea which at least appears to represent something which, if it existed in reality, would have all possible perfections. But does this imply anything as to the actual reality of the object of this idea? Well, in itself nothing. But, according to Descartes “it is manifest by the natural light that there must be at least as much reality in the efficient and total cause as in the effect of that cause. ... And this is transparently true not only in the case of effects which possess what the philosophers call actual or formal reality, but also in the case of ideas, where one is considering only what they call objective reality.” (p. 28.) But then I can be sure that this idea did not acquire its objective reality from me, for the degree of objective reality contained in my idea of God certainly infinitely exceeds the degree of actual reality I have, and so also the degree of the objective reality contained in my idea of myself. Indeed, it also infinitely exceeds the objective reality of any other of my ideas, as none of my other ideas appear to represent an infinitely perfect being, so it could not arise from the objects of any of these ideas either, whether there really are any such objects or not, which I still cannot know at this stage. It is also impossible that this idea came from nothing, as it is clear by the natural light that nothing comes from nothing. It remains, therefore, that this idea can derive only from its truly existing object, namely God. So, since I can be certain that I am, and that I have the idea of God, which I cannot have from elsewhere, but from the truly existing God, I can be as certain of God’s existence as of my own. But it was the certainty of my own existence that resisted even metaphysical doubt, so now my certainty in God’s existence can resist this metaphysical doubt too.

Indeed, since my idea of God is that of a most perfect being, who cannot have any imperfection, and since deceit involves malice, which is an imperfection, I can also know with equal certainty that God is not a deceiver. And so at once I regained habitual certainty in all truths of reason, that is, their clear and distinct actual perception guarantees their certainty for all later times. For now that I know that God is not a deceiver I can also know that what I clearly perceive is absolutely true. Not because God could not make it false, if He wanted, but because now I know that He does not want this, for to want this would be to want to deceive me, but God cannot be a deceiver.

In fact, this newly gained certainty also provides another proof for God’s existence. For now we can be sure that what we can clearly and distinctly perceive, namely the denial of which involves manifest contradiction, is absolutely true. But to think that God does not exist involves manifest contradiction, as God has all perfections, and existence is a perfection. So now we can see with perfect clarity that God exists, and that, consequently, this is absolutely true.

Again, the same holds for all axioms and soundly proven theorems of pure mathematics. Now that I know that there is a God and all truths depend on Him, but I also know that He does not want to deceive me, no skeptical argument can shake my certainty concerning these truths.

I still don’t know, however, whether there is anything besides God and myself. On the other hand, I have these very vivid ideas of corporeal things, which should come either from bodies which are really like these ideas, or from God, or from some other creature of His, including myself. But now that I know that God cannot be a deceiver I know that all my clear and distinct ideas should come from bodies which really are like these ideas.

To be sure, by this we did not eliminate all grounds for doubt, for we have plenty of ideas which we don't perceive so clearly and distinctly as those simple, mathematical ideas, which characterize bodies insofar as they have their corporeal nature. So, maybe those ideas do not represent some further, simple qualities that really inhere in bodies, but they should after all represent something, which, therefore, should be analyzed in terms of those simple, mathematical properties about which we can have certain knowledge.

So by the mathematization of natural science we can gain certain knowledge about the nature even of those qualities that are so elusively represented to us by their sensory ideas. Finally, as to simple illusions, they can always be easily detected by using not just one of our senses, but all of them, and not only our senses, but also the judgment of our intellect, which, as we now can see, rests on solid, unshakable grounds.

So, as we can see, in this Cartesian program for philosophy and science, the trustworthiness of mathematized science is based on unshakable metaphysical certainty, by the elimination of metaphysical doubt. To be sure, the need for the elimination of metaphysical doubt may arise only for someone, who raises metaphysical doubt at all. But the point is precisely that anyone who does not consider this type of doubt cannot even hope to have this type of firm grounding either.

On the other hand, the way Descartes reaches this firm grounding may still leave his readers in doubt concerning some points. Above all, the most significant intrinsic problem with Descartes's reasoning, noticed already by his earliest critics, seems to be what is usually referred to as the "Cartesian circle". For Descartes's crucial step in the elimination of metaphysical doubt, namely the first proof of God's existence, seems to be resting on a circular reasoning. For Descartes needed to prove God's existence and that He is not a deceiver in order to have a divine guarantee for the certainty of truths of reason. On the other hand, in the very proof he had to use such truths of reason, which, therefore, could not yet have this divine guarantee, and so, they couldn't have the certainty required for the proof.

We must not forget, however, Descartes's distinction between what I called actual and habitual certainty. According to Descartes's intentions, metaphysical doubt undermines only our habitual certainty in truths of reason, but not the certainty of their actual consideration. Consequently, it is only their habitual certainty that needs to be restored by the proof for the existence of God, which, however, rests on the actual certainty of their actual consideration in the proof.

Well, I think we can admit that as far as the doubt formulated in the Meditations goes, this distinction works well. On the other hand, from the quote from Descartes's letter we could see that he actually held a much stronger doctrine about the possible falsity of these so-called truths of reason. And this possible falsity may well serve as a reason for doubt even in the actual consideration of these truths, even if we actually cannot conceive how they could be false.

That even Descartes himself was quite at a loss on this point is shown by his rather desperate exclamation in his Second Replies: "What is it to us that someone may make out that the perception whose truth we are so firmly convinced of may appear false to God or to an angel, so that it is, absolutely speaking, false? Why should this alleged

‘absolute falsity’ bother us, since we neither believe in it nor have even the smallest suspicion of it?” (p. 104.)

As we can see, being unable to deny the possibility of their ‘absolute falsity’ on the basis of what he holds about these truths, Descartes proposes rather to ignore it, on the basis of the certainty of their actual consideration. But this will not do for the purposes of demonstration. For even if we have absolute certainty of the premises, if they can possibly be false (whether we can conceive of their falsity or not), the conclusion will only be equally certain, but may, nevertheless, be equally false, even if we cannot conceive of its falsity. Therefore, even if we could not conceive the falsity of the principle that the effect cannot contain more reality than the cause, it might well be false. And so, even if, having been convinced by Descartes’s argument, we could not conceive that God does not exist, it might well be true, for all the certainty of Descartes’s argument. So Descartes’s position created also such a transcendental doubt namely a doubt concerning truth and falsity transcending all our rational capabilities -, which just cannot be eliminated on the grounds of the certainty of individual cogitation alone.

Descartes in his zeal to find a reason for doubt in every opinion he had held before, and prompted by pious considerations concerning divine omnipotence, embraced a doctrine which could yield in the end only absolute subjective certainty, but not absolute truth.

To get rid of the confusing multitude of conflicting opinions one can learn in society, Descartes set out on a quest for self-reliant certainty, all alone, leaving the rest of the world and the rest of humanity behind. Of course, he couldn’t leave behind himself, and what essentially belonged to him, his ideas. As a modest and serious thinker, he of course realized all the limitations of an individual human mind, and knew all too well how liable it is to error. So, he was more than willing to suppose that he could be in error even in things which appeared so manifestly true that their falsity was inconceivable to him.

However, what is inconceivable to an individual may very well be objectively possible. Whether I can conceive of a triangle whose three angles are not equal to two right angles is one thing. Whether such a triangle is possible is another. But this objective possibility depends on objective logical connections of concepts describing this possibility. And these connections, in turn, depend on what these concepts objectively are in those human minds that form them at all.

I, as an individual, can always be wrong about what these objective conceptual relations amount to, for I may just have failed to master these concepts in my mind yet. But we, as a community, are infallible at least about these concepts, for they are all formed by us, and there is nothing over and above their connections that founds the truths formed about them.

Of course, this need not and will not prevent any of us from forming new concepts, and make them public. But these new concepts will never overthrow the old truths about old concepts. They may rather show the limitations of our old concepts, more clearly delineating the realm of their applicability. The concept of a Euclidean triangle could make room for a new, generalized concept of a triangle, of which the Euclidean is only a specific case. This, nevertheless, does not invalidate the truths proven about the Euclidean triangle. On the other hand, what could in fact eliminate these truths would rather be the complete abandonment of the concept of a Euclidean triangle. If no human

mind would have such a concept, there would be no truth characterizing the content of such a concept either.

Now something similar was to be the fate of at least some of Descartes's "eternal truths", most notably of those playing a crucial role in his proofs for God's existence. Even if Descartes thought that the certainty of their actual consideration could resist even omnipotent trickery, in a couple of hundred years they proved to yield to simple human negligence. For who would nowadays regard it as certain "by the natural light" that the effect cannot contain more reality than the cause? Who would compare different degrees of objective reality of our ideas? Who would see a manifest contradiction in the claim that God does not exist?

In view of these considerations we may say that Descartes is not so much the first modern, as the last scholastic philosopher. Indeed, the last scholastic, who is the first to leave the school, who is the first to trust in himself and in God alone in his quest for certainty. But Descartes's paradox is that he finally finds this certainty within himself only by means of concepts that were put there by the School he deserted. All principles he finds evident by "the natural light" are in fact principles that are evident by the lights of the School. The School, where these concepts had been worked out through centuries by generations of individual thinkers, but who all perceived themselves as members of a community precisely by sharing these concepts and principles.

However, once the School is totally deserted, its concepts and principles get neglected and finally completely abandoned. But then the certainty of Descartes's "natural light" concerning the existence of a benevolent God, whose graceful activity guarantees the match between ideas and what they appear to represent, is fatally undermined. And so, on Cartesian grounds, we are left with the unshakable subjective certainty of the cogitations of our ego alone, shut off from a perhaps inconceivable, perhaps non-existent, transcendent reality. But then, it is no wonder that despite Descartes's best intentions to the contrary, it is precisely this aspect of Cartesianism that proved to be the most enduring in our "brave, new world" of universal egoism.

From Descartes's quest for self-reliant certainty, there remained the certainty of self-reliance. If Descartes was the first dwarf to pretend that he was not sitting on the shoulders of a giant, then we, his truly modern posterity, are the dwarfs who don't need such a pretense anymore. We have already fallen off.

THE VANISHING OF SUBSTANCE

In this talk I am going to argue for the thesis that Hume's criticism of our ordinary idea of causation is only one in a whole series of episodes in the protracted story of the vanishing of substance from modern Western philosophy (well, in more than one sense of this phrase).

But first, let me briefly sum up exactly what Hume's criticism of this idea of causation consists in. Hume observes that all our causal reasonings depend on the general supposition of the uniformity of nature, that is to say, that like causes under like circumstances will always produce like effects. This principle itself, however, is undemonstrable, according to Hume.

It cannot be proven a priori, i.e., prior to experience, as all a priori demonstrations rely on the principle of contradiction, but the denial of the uniformity principle does not imply any contradiction whatsoever. For it does not imply a contradiction in any particular case to suppose that we have like causes under like circumstances, while they fail to produce their usual effect. We can have exactly the same type of events leading up to a point at which we would expect the usual effect to follow, but it is always conceivable that the usual effect will in fact not follow.

On the other hand, this principle cannot be proven a posteriori, that is, on the basis of past experience either, for all a posteriori demonstrations rely on the presupposition of this principle, so such a demonstration would be circular, and so it would prove nothing at all. Trying to prove that like causes will always produce like effects in the future on the basis that they have always done so in the past simply begs the question. For from past experience we cannot extrapolate to the future unless we suppose the conformity of the future with the past. But this is precisely to suppose that like causes under like circumstances will always produce like effects, for this is precisely what we mean by the conformity of the future with the past.

What is important to realize about Hume's reasoning in the first place is that it concerns the very foundations of our belief in the general uniformity of nature. So it does not concern the everyday experience that sometimes, indeed, quite frequently, we fail in our expectations based on some causal reasoning concerning some particular outcome of events. Indeed, when something like this happens, we immediately start looking for the cause of the failure of this expectation. So instead of giving up our belief in the general principle of the uniformity of nature, we rather immediately apply it to the actual situation in question.

For example, to take Hume's paradigm-case for causation, suppose we observe one billiard ball rolling towards another standing on the table. What we expect to happen is that when the rolling ball hits the other, the first stops and the other starts moving. Now what if contrary to our expectation we see that after the collision the standing ball stays firmly in its place, and the other just bounces back from it, as if hitting the wall? Instead of beginning to doubt that the laws of elastic collision are still in force regarding billiard balls, we start looking for the cause of the strange phenomenon; and if we finally find out

that the steadfast billiard ball was nailed down to the table, then, with all confidence in the unshaken laws physics, we spring into action against the practical joker.

Of course, Hume does not doubt that this is what we would do. In fact, he claims to know why we would act like this. He claims that he has that general theory of human nature which explains why humans would generally act like this under the given circumstances. But he also claims that this behavior has nothing to do with the much-cherished rationality of mankind, for, in fact, as the previous argument shows, we have no rational basis for such actions. As he concludes: “’Tis not, therefore, reason, which is the guide of life, but custom. That alone determines the mind, in all instances, to suppose the future conformable to the past.” (p. 652.)

Now is it really just blind custom that motivates us looking for further causes, when our expectations or predictions fail? Or is there some truly rational basis for looking for other causes, rather than just gazing at the miracle, and so also for having had those expectations and having made those predictions in the first place?

To see this, let us consider a somewhat less mundane, more experimental situation. Suppose we have two shiny metal balls, of equal size, hovering in zero-gravity in the cabin of a space station, one being at relative rest, while the other moving towards it. We observe that after the moving ball hits the other, the moving ball stops, and the other starts moving in accordance with the laws of elastic collision.

Then we repeat the experiment with two other shiny metal balls, looking exactly like the previous ones. What we observe now, however, is that instead of the moving ball knocking the other into motion, the two balls merge into one, and the new, big ball is moving along with about half the speed of the originally moving ball.

But this time we are not going to be surprised, because we know that while in the first experiment the two shiny metal balls were made of steel, in the second one, the exactly same looking shiny metal balls consisted of mercury, which we knew were liquid at the cabin temperature! In fact, on the basis of this further piece of knowledge, we expected to happen precisely what happened, for we knew that the two liquid metal balls were going to merge, instead of behaving like the other, solid balls. So here we simply knew something more about these objects, which otherwise looked exactly alike, and so it was not on the basis of the actually perceived collection of their sensible qualities that we had our different expectations in the two cases.

Now what is important to notice about this hypothetical experiment concerning Hume’s reasoning is that on Hume’s principles we were rationally unjustified in our expectations even in possession of this extra piece of knowledge. With the steel balls we could have experienced exactly the same what happened with the mercury balls and conversely. For Hume it should not imply any sort of contradiction to suppose that the steel balls, staying solid, springy steel all the time, could have merged in the same way as the mercury balls did, or that the mercury balls, staying liquid mercury all the time, could have collided elastically, just like the steel balls did.

But at this point, perhaps, we may start to feel a little bit uneasy about Hume’s reasoning. How could it be possible that the solid steel balls could have acted like something else, like a liquid? Doesn’t this run counter our very notion of what it is for something to be

steel, and therefore some springy solid under the given circumstances? Isn't this supposition in conflict with our conception of the very nature, or substance of steel?

Hume's answer to this would be that of course we may have such uneasy feelings, but if we do mean something by the phrase "the substance of steel", then this uneasy feeling is due to our habits based on past experiences alone; or, if we claim something more to be the basis of this uneasiness, then we are simply victims of a philosophical mirage, and we are just using words that don't make any sense. For words make sense only insofar as they are signs of our ideas. But "we have ... no idea of substance, distinct from that of a collection of particular qualities, nor have we any other meaning when we either talk or reason concerning it" says Hume. (p. 16.) So if we really mean something by the "substance of steel", then it cannot be more, nor less than the collection of sensible qualities of any object made of steel, in our particular case, the collection of sensible qualities of the steel ball.

Of course, the trick in my presentation of the hypothetical experiment was that first I gave only a restricted description of the sensible qualities of the objects of the experiment, "the shiny, metal balls", and I betrayed only later that we were supposed to know also something more about them than what we could immediately see in the experiment. But this extra information, namely that the first pair consisted of steel, while the other of mercury, implies only further sensible qualities associated with our past experiences of steel and mercury, on the basis of which we had the expectations that we usually have concerning objects made of steel and of mercury. But, again, those past experiences imply nothing concerning the possible outcome of any future experiment, and so, aside from our habituation by our past experiences with steel and mercury, nothing justified our expectations.

On the other hand, if we claim to mean something else by the "substance of steel", namely some hidden subject, or essence, which sustains and somehow determines all the sensible qualities of steel, but which is distinct from all these qualities, then we are simply talking nonsense. For our words make sense only if they are signs of our ideas, and all our ideas derive ultimately from sense impressions. But that hidden subject, being distinct from all sensible qualities must be something insensible, so it can have no corresponding sense impression, and so we can have no idea of it. Therefore, the words purporting to refer to such a thing are simply meaningless.

As we can see, since our ordinary idea of causation is tightly connected to our concept of some unchanging nature or substance of things, Hume's criticism of our ordinary idea of causation is heavily dependent on his criticism of the concept of substance. Of course, in this he follows closely in the footsteps of Berkeley, who was the first to launch the kind of criticism against the concept of material substance according to which it is just a philosophers' mirage, which we had better get rid of as soon as possible. In fact, it is very instructive to observe just how closely does Hume follow Berkeley in the critical part of the latter's philosophy, and how easily he parts company with him, when it comes to Berkeley's speculations concerning spiritual substance.

But, as we know, Berkeley's prime target was John Locke's material substance, that hidden, inaccessible entity lurking behind the sensible qualities it is supposed to support. The main objective of Berkeley's criticism was to show that by getting rid of this

philosophical chimera we lose nothing, except for an opportunity for learned ignorance to abuse language against the rules of plain common sense.

In fact, both Berkeley and Hume appear to agree on this point, namely that our idea of substance should either be analyzable in terms of the plain commonsense language of perceptible qualities, or, if one claims that it is not so analyzable, then this person is committed to talking nonsense. Now let us take a closer look at the foundations of this claim on Berkeley's and Hume's part.

Both thinkers agree that the main source of the nonsense-talk of philosophers is that manufacture of philosophical chimeras, the Lockean doctrine of abstraction. But why is this so? What is the supposed relationship between Locke's doctrine of abstraction and his concept of material substance? After all, even according to Locke's conception, our abstract ideas of substances are just "gappy" collections of sensible qualities! So why do Hume and Berkeley think that by attacking Locke's doctrine of abstraction, and thereby the idea of this "gappy" collection of sensible qualities, they will hit that insensible substance too, which Locke believed accounted for our having the ideas of such collections of sensible qualities?

The logical link for Berkeley between abstraction and material substance is Locke's distinction between primary and secondary qualities. Primary qualities are extension, figure, motion, solidity and number, or, in short, the mathematically characterizable properties of bodies and their insensible parts. Secondary qualities are the rest of sensible qualities, like color, smell, sound, cold, warmth, etc. According to Locke, primary qualities are really inherent qualities of independently existing material substances, while secondary qualities are only in the mind, caused by the primary qualities of these substances.

By his criticism of abstraction, Berkeley wishes to establish that the separation of primary from secondary qualities, even in thought, involves the same absurdity as the separation of anything from itself. But then, since secondary qualities exist only in the mind, primary qualities cannot have a mind-independent existence apart from these either. And so, if the phrase "material substance" has any meaning at all, it can refer only to some concrete collection of both kinds of sensible qualities, but it cannot refer to some independently existing entity having only primary qualities, concludes Berkeley.

But it seems that even apart from the doctrine of abstract ideas, Berkeley and Hume had every right to reduce Locke's idea of material substance either to sheer nonsense, or to a collection of simple ideas of sensible qualities.

For if by "material substance" Locke means something beyond these ideas, which is supposed to be distinct from all its sensible qualities, then on his own empiricist grounds he has to admit that we can have no idea of such a thing. For on these empiricist grounds all our ideas derive from sense perception. But of this thing we cannot have any sense perception, as it is supposed to be distinct from all its sensible qualities. So we can have no idea of it. But then, since according to Locke, words have meaning only by being the signs of ideas, he also has to admit that according to this interpretation these words mean nothing.

Again, if by “material substance” Locke means a collection of really existing sensible primary qualities which cause a corresponding collection of ideas (of both primary and secondary qualities) in the mind, then, despite possible appearances to the contrary, this phrase makes no more sense either. For, since it is only the ideas of these qualities that we are aware of, we could know of these qualities only by inferring their existence from the ideas, by supposing their causal relationship. But the same effects may always be produced by different causes. So we can never know it for sure, whether the same ideas represent the same qualities. But then, on the basis of having some sensation we can never be sure of the actual presence of the truly corresponding real sensible quality. But then, since it is only the impressions or ideas of these alleged qualities that we are ever aware of, we can know nothing about these qualities, for the same impressions or ideas might be produced by any other kind of qualities, in fact, even not by qualities, but by anything else. So, properly speaking, we don’t have any ideas even of these qualities, for in principle just any idea could belong to any quality, or, for that matter, to anything else. But then no idea is an idea of this or that quality, properly speaking, in the sense that the presence of this idea is always caused by the presence of the corresponding quality. Therefore we have no ideas even of these alleged sensible qualities, which are supposed to be distinct from their ideas. But then, any words purporting to refer to such qualities are meaningless, whence the phrase “material substance” is equally meaningless, if it is supposed to refer to such a putative collection of really existing sensible qualities.

Finally, if by “material substances” Locke means collections of impressions or ideas of sensible qualities, which qualities are not thought to be distinct from these impressions or ideas, then he is not speaking about the causes of these impressions or ideas, but about the impressions or ideas themselves, and this is the only way in which, according to Berkeley and Hume, these words can make any sense, if at all.

But to cap this all, even if, per impossibile, we could form some idea of material substance purely on the grounds that it is the cause of our sense-impressions, since this idea would rest on the notion of causality, it certainly could not serve as a foundation of this notion by which we could evade the force of Hume’s reasoning. For having an idea of material substance as being the cause of our sense impressions would presuppose that we have an idea of cause. But this idea of cause should derive ultimately from sense-impressions. And we have already seen from Hume’s argument that such ideas can never supply a sufficient justification for the principle of the uniformity of nature, and so we could never know whether having a sense impression is indeed in conjunction with the presence of a substance.

So, all in all, since Locke’s idea of material substance either reduces to sheer nonsense on his own principles, or to the same idea that was implied in Hume’s criticism of causation, or, at best, it might be founded on the very idea of causation which is already undermined by Hume’s reasoning, it certainly cannot serve itself as a firmer foundation for this idea.

However, Descartes may still have a way out here. After all, one cannot help noticing the clearly Cartesian origin of the distinction between primary and secondary qualities: primary qualities are precisely those qualities, which, based on the Divine guarantee of metaphysical certainty, fall within the realm of metaphysically founded, mathematized Cartesian science. On the other hand, Descartes’s philosophy is certainly not bound within the epistemological limits of empiricism, and so he may very well have a purely

intellectual idea of substance, which is distinct from a sheer collection of sensible ideas. But then this idea need not even be derived from causality in sense-perception as in Locke's philosophy, and so it may possibly serve as an independent foundation for the idea of causation.

Well, indeed, Descartes does have such an idea, as his analysis of the example of the wax shows. Our idea of the substance of the wax is definitely not the collection of the sensible qualities of wax, for while all these sensible qualities may change, by this idea we conceive of the same substance, which preserves its identity during all these changes. But then, if we do have such an idea of substance, then it indeed should reflect some unchangeable nature of the thing existing independently of our perceptions, and which, therefore, can serve as the basis of unchangeable, objective causal laws.

Descartes's analysis, however, immediately gives rise to at least the following two questions: 1. What is it that this idea represents, if none of the sensible qualities of this or that particular substance? 2. What guarantees that there is anything corresponding to such an idea in reality?

To the first question the answer at first sight seems to be obvious: it is the nature of the wax that the idea of wax represents. Very well, but what is this nature of the wax? And it is at this point that we usually come to a halt. As Gassendi's objections show, it seems just absurd that the taking away of all sensible, accidental qualities would yield a greater knowledge of the thing, if, in fact, we have just no idea what remains at the end of this process.

The point of this type of criticism is to show that those who claim to have a purely intellectual knowledge of the nature of material substances are usually at a loss to say what this nature is supposed to consist in, over and above the sensible qualities of these substances. And we must not forget here that with Descartes we are already in an age when descriptions of such supposed natures, like "waxhood", say, are the common laughing stock of a new breed of intellectuals, who are united, if by nothing else, then at least by a shared scorn for scholastic explanations.

It is important to notice, however, that on scholastic Aristotelian grounds there is just nothing absurd in having such a purely intellectual concept of a material substance. Indeed, in this conceptual framework, it is precisely one of the distinguishing features of intellectual cognition, as opposed to sense-perception, that the intellect by abstraction is able to comprehend the essence of the thing, constituted by the thing's substantial form, which accounts for the thing's necessarily having certain properties, including its causal powers, as long as the thing exists. And this is so because the substantial concept formed in this process of abstraction in the mind is itself nothing but the same substantial form which informs the matter of the thing, but existing in the mind abstracted from this matter.

Now this last point has an important further consequence, which renders the Aristotelian scholastic answer to the question concerning the relationship between our intellectual concepts and their objects radically different from Descartes's. For our substantial concepts being just the substantial forms of things without their matter in our minds, these concepts are necessarily related to their objects: it is logically impossible, according to this view, that we have a substantial concept of say, donkeys, which is not a concept of

real donkeys, i.e., of substances having the substantial form of donkeys. Indeed, since substantial concepts and substantial forms are connected by logical necessity, even divine omnipotence is incapable of producing such a substantial concept in a human mind which is not of objects informed by the corresponding substantial form, that is, which is not of objects that really are what the concept represents them to be, for this would involve a contradiction.

For on this view a substantial concept is the substantial form of its proper object in the mind without the matter of this object. Now suppose that the same concept may be in existence, while not being the concept of its proper object, but of something else, or of nothing at all. But then, it cannot be the substantial form of its proper object without the matter of this object. So, then the same entity, the same concept, is supposed both to be and not to be the substantial form of its proper object without its matter, which is a contradiction.

Therefore, since for scholastic Aristotelians mental representations are necessarily connected to their objects, there cannot be any doubt that if I have a substantial concept of a certain kind of object, then, when I experience that kind of object, the object I experience really is what I conceive it to be by this concept. For example, if I have the concept of body, and I experience a body, then when I conceive of it by my concept of body, then what I conceive of by this concept is really what it is represented to be by this concept, namely, a real body.

To be sure, this does not render me infallible. Suppose I happen to experience not a body, but only an illusion of a body, say, in virtual reality. Then, if I judge this illusion to be a body, my judgment is false. But the point is not whether my particular judgments may be false, but whether it is possible that my concept of a body may apply equally well to a real body and to a virtual reality illusion of it. However, the very fact that this judgment in this situation is false, shows that my concept of a body may not apply to something that is not really a body, despite the circumstance that on the basis of my actual perception of the phenomenon I may mistake it for a body.

But what if the virtual reality program is perfect, in the sense that it supplies me with all the perceptible qualities I could perceive in a real body? For the scholastics my judgment would still be false, since my concept of a body even in this case cannot truly apply to a however perfect illusion. By contrast, since on empiricist grounds my idea of body is but the collection of its perceptible qualities, in such a situation, if the illusion is truly perfect, my judgment should be true according to Hume.

On the other hand, for Descartes, the same judgment under the same circumstances would be false, too, just like for the scholastics. Still, there is a tremendous difference between the Cartesian and the scholastic account of the matter, with far-reaching consequences, even if this is quite difficult to recognize in a superficial comparison. At the bottom of the difference is that for Descartes our ideas are representations which are not necessarily connected to their objects. Just remember that in the midst of demon doubt we were supposed to have exactly the same ideas, but without any real objects they appeared to represent, which is a situation Descartes clearly finds conceivable. (So, this is not just an inconceivable possibility of the kind Descartes finds producible by divine omnipotence, so his unorthodox view on divine omnipotence being capable of making

contradictories true is not relevant here.) Indeed, in the Cartesian framework it is also perfectly conceivable that I could have exactly the same ideas, if I had been in touch only with a virtual reality in all my life. What is more, this holds not only for me but for any human being. So Descartes finds it possible not only that my particular judgment is wrong when I try on the virtual reality gear, and which I can correct as soon as I take the gear off, but that all judgments of all humanity may be wrong in the same way, incorrigibly by any former or later experience, for we may be cut off from reality completely and forever by the trickery of an omnipotent deceiver.

By contrast, again, according to Hume such a situation is absolutely possible, but Descartes is just wrong in saying that in this case all humanity would be wrong. Not at all. In this situation, which may very well be our actual situation, it is only this virtual reality which it makes any sense to call reality, and in fact it is only this sensible reality that we call reality. And this is so, even if there may or may not be some other, hidden, more real reality of which we can have no idea at all.

On the scholastic account, however, such a situation would be simply impossible. For this kind of objective, but in principle undetectable falsity of all our factual judgments would imply that all our concepts could be exactly the same as they are when they apply to real objects, only in this hypothetical situation of perfect illusion, none of them happens to apply to any real object. But then the very same concepts, which in a normal situation would be the forms of real things in the mind without the matter of these things, are supposed to be not the forms of any real thing in this hypothetical situation. But as we saw earlier, this supposition leads to the contradiction that our concepts both are and are not the forms of things in the mind without their matter.

But that the hypothesis of complete illusion of the demon argument is contradictory also in itself, can be shown by the following reasoning. In the description of this hypothetical situation we necessarily have to use some concepts which adequately apply to this situation. But this can be so, only if by these concepts we adequately conceive of the real things occurring in that hypothetical situation. On the other hand, in the description of the same situation it is also said that in that situation we can have no concepts by which we could conceive of the real things of that situation. So our hypothesis can possibly be true only if our actual situation, in which we describe that hypothetical situation is not the same as that hypothetical situation. On the other hand, it is also part of the demon-hypothesis that our actual situation can be identical with the hypothetical situation of complete illusion. So this hypothesis leads to a contradiction, namely that our actual situation both can and cannot be that hypothetical situation. For the assumption of the possible truth of the hypothesis implies that our actual situation cannot be that hypothetical situation, while the hypothesis also states that our actual situation can be that hypothetical situation. But then, since the hypothesis of complete illusion implies contradiction, it follows that the demonic situation of complete illusion cannot be our actual situation, and so in our actual situation at least by some of our concepts we necessarily latch onto real things, which these concepts appear to represent. So the scholastic Aristotelian claim concerning the necessary connection between concepts and their adequate objects seems to have a pretty firm foundation in itself, without having to rely on the notion of causality between objects and their mental representation.

But then, since on the basis of this scholastic Aristotelian account, at least some of these concepts have to be substantial concepts, as no accidents are conceivable without conceiving the substance which they are the accidents of, by these substantial concepts we have to conceive of the real essences of these real things. And this is so even if we are not always able to re-identify these real essences by means of other concepts, supplying some reliable real definition of the thing. But then, we can be sure, a priori, that things having such essences are going to have their essential properties as long as they exist, since for a thing to exist is to have this essence constituted by its substantial form, even if we may not always know what exactly these essential properties are. And so we can be sure that things of the same kind, having the same essences, are going to behave according to the same unchanging causal laws determined by their essential properties as long as they exist. Therefore, we can also be sure that as long as the world as we know it exists, that is, as long as it is going to have a future at all, its future is going to resemble its past in respect of these essentials. Well, of course nothing guarantees that the world is going to exist in the next moment, as the world is contingent. God can annihilate this world anytime. But that time would be just the end of time, so beyond that point, of course, it's no use asking whether the future will be like the past. So we can be absolutely sure that as long as this world exists, consisting of the kinds of things it actually does, it is going to obey the causal laws determined by the essences of things making it up.

As we can see, moving back in time, in the scholastic Aristotelian account of substance and the way it is related to our concepts we could finally find a firm, independent foundation for the idea of necessary causal laws, based on the real essential properties of really existing things, which we can be sure our concepts adequately represent. But this kind of abstract, metaphysical certainty could of course never yield in itself any specific knowledge concerning what the real essences of particular kinds of things are. On the other hand, by the time of Descartes, it was precisely the lack of this kind of specific knowledge that rendered scholastic explanations the common target of the mockery of a new intelligentsia, whose interests demanded precisely this kind of knowledge. Therefore, they naturally detested the scholastics' abstract references to substantial forms determining the causal powers of things. That opium puts you to sleep because it has dormitive power, i.e., a power to put you to sleep, is a truism, but a truism which for Molière, a younger contemporary of Descartes's, already served only to ridicule the "science" of the Schools.

But then it should come as no surprise that Descartes wanted to find different foundations for the science he conceived of, in which therefore, there was no place for such "obscurantisms". As a consequence, Descartes abandoned substantial forms from his ontology and the corresponding view of substantial concepts from his epistemology. On the other hand, we just saw that it was precisely this, general metaphysical and epistemological framework, which could provide a strong, independent foundation for the view of physical reality as being directly accessible to us by our mental representations, and as obeying necessary laws providing the intelligible architecture of this reality.

Therefore, having abandoned this metaphysical and epistemological framework, no wonder that it was only by the help of divine grace that Descartes could smuggle back the objects of his ideas which he had thrown out in the beginning by divine omnipotence. As he discarded substantial forms, he could not regard our substantial concepts as the

substantial forms of things in the mind without their matter. And so, he regarded his ideas as connected merely contingently to their objects. (In fact, that Descartes could have such a different conception of ideas at all also has an interesting prehistory in late medieval philosophy, but this would lead us too far away from our present subject.) So against the Demon-doubt he could not re-establish the match between ideas and their objects, except by proving that God exists and that He is not a deceiver.

On the other hand, in the possession of this divine guarantee, Descartes was still able to restore a real physical world behind the scenery of our ideas. Indeed, he could still claim that this world obeys necessary laws based on the real essences its real substances have, which we can get to know by using our purely intellectual ideas, by which, in possession of the divine guarantee, we are able to reach out to the unchangeable, mathematically characterizable essences of things.

But besides the internal foundational problem of the Cartesian system expressed in the so-called Cartesian circle, it is evident that this system can account for our having these purely intellectual ideas only by presenting them as innate ideas, while the correspondence of these ideas to their objects was based entirely on the graceful activity of our Creator. Therefore, anyone who wanted to drop the tenets of innate ideas and the divine guarantee, but retain the general Cartesian framework, in which mental representations are related only contingently to their objects, had to try to find some other relationship to account for the match between ideas and their objects.

As we know, this was the course taken by John Locke. He thought that the doctrine of innate ideas was absurd, on the basis that it involves the seemingly strange assumption that there can be something in our minds which we are not aware of, while it seems that to have something in the mind is nothing, but to be aware of it. (Well, then, it is an open question how an English peasant of Locke's time could have the rules of English syntax in mind without ever being aware of these rules, but this is a further issue.) But then, the only source of our ideas seemed to be sense perception. Therefore, according to Locke, it is only through the testimony of the senses that we can know of the existence of an external reality, which by its causal operations on our sense organs generates ultimately all contents of our minds.

But as we could see earlier, Berkeley's criticism of Locke's idea of material substance points out very clearly the incapability of Locke's empiricist principles to generate any intelligible, genuine idea of material substance, as something distinct from a sheer collection of ideas of sensible qualities. But once the idea of material substance is reduced to that of a collection of ideas of sensible qualities, since ideas cannot be except in the mind, Berkeley was completely entitled to drop the idea of independently existing material substance altogether.

On the other hand, for Berkeley this did not involve dropping the idea of substance *per se*, for he thought he can, indeed, has to retain at least spiritual substances in his ontology. But then, it is a mystery again, how we can have any idea of spiritual substance, if all our ideas should derive from sense perceptions. As his desperate distinction between notion and idea in the second edition of his *Principles* shows, Berkeley was quite aware of this problem, but he was unable to come up with a satisfactory solution.

So, it was finally Hume, who was the first to push empiricism to its utmost consequences, deleting all kinds of substance from his ontology, including even the substance of the human mind. His relentless consistency, however, drove him to draw such bold consequences, which, instead of revolutionizing philosophy in the way he conceived, led to a thoroughgoing re-examination of the very principles of empiricism. In fact, in this roundabout manner Hume's philosophy eventually did yield a revolution in philosophy, although a revolution of a rather different kind: the "Copernican revolution" of Kant's philosophy.

Kant (summary)

Hume's critical philosophy rendered the whole enterprise of traditional metaphysics dubious. If there is possibly no metaphysical reality, or even if there is, if we cannot meaningfully talk about it, then metaphysicians should close shop for want of a subject. To be sure, this in itself is no big deal, but if metaphysics is a basic human need — and it arguably is, for it is no trifling question in anyone's life whether there is a God or not, or whether they have an immortal soul or not, and whether these things can be known or not, etc. — then Hume's conclusions entail that all of us, qua humans, have to get out of this business.

Therefore, for the first time in history, it became a legitimate question whether metaphysics as a science is possible at all — a question Kant set out to answer in its full generality.

Now, since any scientific theory is a set of known judgments, this question in its fullest generality is equivalent to the question whether known metaphysical judgments are possible. And since such judgments are to provide us with knowledge about some insensible, purely intelligible reality, they have to be known a priori (not on the basis of experience), and they have to be synthetic (i.e., they have to be about reality, and not only about the structure of our complex concepts analyzable in analytic judgments). So the general formal question turns out to be whether synthetic a priori judgments are possible, and if so, how?

The answer of "Hume's Fork" to this question was a simple 'no'. (As Hume argues, if the concept [idea] of the predicate is not contained in the concept [idea] of the subject, then, on the basis of his principle of free recombination of simple ideas, the proposition has to be about a matter of fact, whence it has to be contingent, and thus it cannot be known a priori. So, the synthetic a priori for Hume [and for many after him as well] would be an oxymoron.) But Kant reprehends Hume for not recognizing that we in fact do have synthetic a priori propositions [says — henceforth], the clearest examples of which, according to Kant, we can find in math. [n. 272-273.] For, according to him, it is impossible to account for the necessary truth of mathematical propositions purely in terms of the analysis of its concepts. [n. 269.] As he argues, the quantitative concept of 'shortest distance', for example, is by no means contained in the qualitative concept of 'straight line', however you analyze it. But then 'A straight line is the shortest distance between two points' is synthetic. However, if it is, how can we know it a priori?

Kant answers that the only possible way is that this synthesis [of straightness and shortest distance] somehow precedes any actual experience. To explain this precedence he provides us with a careful analysis of experience in general. Any experience consists of intuitions, i.e., sensory representations of singular objects in their individuality. [As opposed to the intellectual representations of singular objects that represent them in a universal manner, which are the concepts of the understanding — more about these later.] But any individual sensory representation (whether a color, a shape, a sound, a smell, etc.), precisely because it is individual, has to be determined in space and time. Indeed, space and time are nothing but those determinations of such sensory contents [the empirical intuitions, as Kant calls them], which determine their individuality [say, this

round patch of green here may differ from that one, only because this one is here and that one is there — make them overlap, and they become one individual]. Therefore, space and time, as the necessary, formal determinations of all empirical intuitions in their individuality precede all experience. [Of course, they precede them not in time, but logically, as a necessary precondition precedes anything of which it is a precondition. But space and time are precisely such necessary preconditions of all experience, because no experience can be had without its being determined in space and time.] So, in this sense, space and time are the forms of all intuitions, and as such they precede all experience as its necessary precondition. But then any judgment that concerns only these forms in themselves, disregarding their empirical contents, can be known a priori, "before", that is, not depending on, any actual experience. However, judgments of geometry are precisely such judgments about space, and judgments of arithmetic are precisely such judgments about time [provided we conceive of numbers as the result of the successive addition of units in the temporal process of counting]. Therefore, mathematical propositions, despite the fact that they are synthetic, can be known a priori on the basis of our having the pure intuitions of space and time.

There are two important consequences of this explanation from the point of view of the general enterprise.

1. In this explanation we have the model of a general method of establishing the possibility of saps. The method [which Kant refers to as a 'transcendental deduction'] consists in the discovery of those necessary preconditions of all possible experience which alone make it possible for objects to appear to us as they do in experience. [nn. 284-285.] Synthetic judgments, then, which express some general features of these preconditions will always be knowable a priori.

2. Saps can characterize all possible objects of experience, not as they are in themselves, but only as they appear to us. [n. 285.] Indeed, the only way we can know anything about objects of experience a priori is that the way they appear to us is constituted by our cognitive faculties. This does not turn these objects into mere illusions, yet it necessitates the distinction between an object as it appears to us [phenomenon] and an object in itself (noumenon, Ding an sich). [nn. 289-293]

Since human experience does not consist only of sensory intuitions, but also of objects insofar as they fall under our empirical concepts in our understanding, after examining the constitution of experience by the forms of sensibility (space and time), Kant goes on to examine in an analogous manner the constitution of experience by the forms of the operations of the understanding, which he calls the categories. In the constitution of human experience, categories are to empirical concepts as the forms of intuition are to empirical intuitions; therefore, they can also serve as the basis of forming synthetic a priori judgments, making pure natural science possible.

Empirical concepts are universal representations of classes of individual intuitions (say, the concept 'centaur' is the universal representation of all individual centaurs that can appear in possible experience; that they actually don't appear in our experience indicates that there are no centaurs; or perhaps there are, we have just not found them yet). Pure concepts, on the other hand, are concepts applicable to empirical concepts. For example, the concept of existence is not properly applicable to individual centaurs (for how could

you possibly deny the existence of something which is actually a centaur?), but it is applicable to the concept: to say that there are no centaurs is to claim that there are no individual objects of possible experience that would fall under this concept; the empirical concept of centaurs is actually empty.

In a more rigorous reconstruction, along the lines of the ideas of Gottlob Frege, we can draw this distinction in the following manner. The concept of centaurs is like a function, the domain of which is the set of all possible objects of experience (intuitions), and the range of which is the set of truth-values: true or false.

$\text{Centaur}(x) = T$, if x is a centaur; otherwise $\text{Centaur}(x) = F$

The concept of existence is a concept operating on such concepts; that is to say, its domain is the set of all functions like the one above, and its range is again the set of truth-values. Thus, if we define the extension of the above concept as the set of individuals for which the concept yields the value T , that is, $\text{Extension}(\text{Centaur}(x)) := \{x: \text{Centaur}(x) = T\}$, then the concept of existence will operate on the concept of centaurs in accordance with the following rule:

$(\exists x)(\text{Centaur}(x)) = T$, if $\text{Extension}(\text{Centaur}(x))$ is not the empty set; otherwise
 $(\exists x)(\text{Centaur}(x)) = F$

In general, if C is any empirical concept (that is, $C(x) = T$ if x is a C , otherwise $C(x) = F$), and its extension is $\text{Extension}(C(x)) := \{x: C(x) = T\}$, then the concept of existence can be defined as the following function:

$(\exists x)(C(x)) = T$, if $\text{Extension}(C(x))$ is not the empty set, otherwise $(\exists x)(C(x)) = F$

In any case, the point of all this is that the concept of existence, as a category, is a logical function that operates on empirical concepts (which in their turn are functions that operate on intuitions). It is the recognition of this two-tier structure of concepts that serves as the basis for Kant's subsequent investigations.

As a result of his transcendental deductions, Kant provides us with what he regards as an exhaustive list of all such categories, on the basis of the forms of judgment they constitute, and the list of saps they generate as the principles of pure natural science (pp. 46-47).

Without going into the details of the system (which is contained in the Critique of Pure Reason), it is worth our while to see how this analysis works in Kant's solution of Hume's problem.

The concept of cause, being a category, operates on empirical concepts, just like the concept of existence as analyzed above. The difference, however, is that the concept of cause is a two-argument function, that is, it takes two empirical concepts as its arguments. Accordingly, if E_1 and E_2 are two empirical concepts, we may provide an analogous analysis as follows:

$(C_{x,y})(E_1(x), E_2(y)) = T$, if whenever an x which is E_1 occurs, then, on account of the occurrence of x , a y which is E_2 occurs, in all possible situations, otherwise
 $(C_{x,y})(E_1(x), E_2(y)) = F$

Of course, Kant does not even hint at such technical details. Nevertheless, what he does say can be captured quite clearly by the general idea of this reconstruction. For on the basis of this reconstruction it is easy to see that the concept of cause is indeed a pure concept added to two empirical concepts in a judgment of experience, as opposed to a judgment of perception, which contains only empirical concepts (check the relevant entries in the Index!). And since the concept of cause is defined for all possible empirical concepts, it is also clear that for any such empirical concept there has to be some empirical concept to which it is connected by the non-empirical concept of cause, and this is precisely what is expressed by the synthetic a priori principle of causality, namely, that every object of possible experience has to have some cause. [Formally: for every E_2 , there is some E_1 , such that $(C_{x,y})(E_1(x), E_2(y))$; the point is that even if we may not know for any E_2 which E_1 it is that satisfies this formula, nevertheless, we can know a priori that there is some such E_1 .] But then, this solves Hume's problem. For in this way we can know a priori that every event must have some cause and that similar causes will always have similar effects (that is, if any x that is E_1 occurs at any time, then a y which is an E_2 will also occur at that time, whether in the past, present or future), for this is the only way in which an object of possible experience can appear to us, as falling under the concepts of the understanding.

But then, again, just as in the case of the explanation of the possibility of mathematics, besides providing the solution of Hume's problem concerning phenomenal objects, this analysis also generates another problem concerning what these objects are. For, again, since objects of possible experience, as they can only appear to us, are constituted by the categories, for any event and any object appears to us as part of a universal causal order, and the categories do not belong to objects in themselves but to our understanding, the objects of experience again have to be distinguished from objects in themselves. It is only about these objects of experience, the phenomenal objects, that we can have synthetic a priori knowledge, but about objects in themselves we can have no such knowledge at all. On the other hand, since we know that objects of experience are constituted appearances, and appearances have to be the appearances of something, we know that these appearances are not empty illusions; we know that they are of objects in themselves, we just must not confuse the two. [See nn. 360-361]

Another "limiting" consequence of this solution is that since the categories are second-order concepts of our first-order, empirical concepts, they can only apply to objects of possible experience. Therefore, it is impossible to apply them to anything beyond the limits of possible experience. Indeed, since the totality of all experiences, the observable world, is not one of the experiences, we cannot use these concepts even to prove conclusions concerning this totality. So, for example, since the concept of cause is interpreted *on* the set of all possible experiences, but not *for* this set, we cannot meaningfully talk about the cause of this totality [n. 316; 332], whence we certainly cannot prove the existence of God as the cause of the world.

But then this has the immediate further consequence that metaphysics in the old, "dogmatic" way is impossible, according to Kant. For that metaphysics promised to prove the existence of God, the immortality of the soul, etc. in general, a number of theses about objects beyond possible experience, by means of concepts of pure

understanding, such as cause, substance, existence, etc. (See Kant's table of the categories.)

On the other hand, precisely because the pure concepts of understanding are interpreted on this totality, another cognitive faculty, reason, necessarily reflects on, and forms its own cognitive acts, the ideas, in connection with this totality. [nn. 327-329] It is reason and its ideas that are responsible for the human desire to reflect on the totality of the world of experiences and what lies beyond it, that is, for the human desire to reach metaphysical knowledge. As we have seen, in a certain way, in which it has been attempted to be satisfied by dogmatic metaphysics, this desire is doomed to frustration.

For what dogmatic metaphysics attempts is impossible: to apply the concepts of pure understanding beyond the sphere of their applicability, to apply them to the totality of the world of experiences and what lies beyond, instead of applying them within this world, where they can only have their proper use, the constitution of phenomena as coming under the necessary laws of nature. But reason's desire to apply its ideas necessarily gives rise to the "dialectical illusion" of metaphysics, an apparently endless series of arguments and counter-arguments concerning what Kant says are demonstrably undecidable questions.

Thus, reflection on the totality of subjective experiences generates the idea of the soul as the permanent subject of all these experiences. But establishing that the soul is the permanent subject of all these experiences cannot guarantee that it will be the permanent substance of our egos beyond the totality of these experiences, so proofs of the immortality of the soul are doomed to failure. (n. 335.) Of course, the opposite cannot be proved either, since that would require proving that the dissolution of the body is the end of all subjective experiences, and nothing can prove that, except that you wait and you'll see; oh, well, or you won't.

Likewise, the totality of all objective experiences cannot be proven to be infinite or finite, either extensively or intensively; that is to say, the infinity or the finitude of the world in space and time, and the infinite divisibility of matter are all undecidable, for these all would involve attributing properties to something beyond all experiences, and thus neither positions can be proven to be true (in fact, both are meaningless). [nn. 340-342]

On the other hand, trying to prove that everything in the world is determined by antecedent causes, and hence there is no free will, or that some agents are free and thus not everything is determined is a vain attempt, for in fact these two positions are compatible. For of course everything in the world of all possible experiences is determined by causal laws, because it is only in this way that any objects of experience can appear to us. But the underlying subject of all subjective experiences, which we grasp by the idea of the human soul, is not one of the objects in this world of all possible experiences, so no wonder it does not come under the causal laws of this world, and thus the only way can conceive of the soul is to think of ourselves as free, autonomous agents, acting on, but not determined by the world of experiences. [nn. 343-347]

Again, in the same way, the positions that there is some necessary cause of the whole world, and that there is nothing necessary in itself, but everything is contingent on something else are in fact compatible, so they do not decide the question of the existence of God one way or another. For of course within the world of experiences, everything

must have a cause, but that does not mean that the world as a whole must have a cause. Yet, this does not exclude the possibility that there is something which is related to the world as something which is a cause within the world is related to its effect. [nn. 347-349]

In fact, these two last antinomies show not only that dogmatic metaphysics is impossible, but also how a critical metaphysics is still possible. For both of them show that the metaphysical ideas (not concepts—those belong to understanding) of God and the soul are not constitutive concepts of the world of experiences, but regulative ideas marking out the limits of the world of objective and subjective experiences. Indeed, these ideas are formed by means of analogies, relating to these two totalities. For the idea of the soul is formed as the underlying subject of all subjective experiences (consciousness), by the analogy that just as the appearances of objects of the world are related to their underlying, permanent subject, their substance, so is the totality of the phenomena of consciousness related to something else, the soul. Again, just as objects of experience in the world are related to other things as their causes, so is the world as a whole related to something else, that is, to God.

In this way, if we realize that we can form the ideas of pure reason by means of these analogies, we can also see that there is also a positive, non-illusory function of these ideas. For being related to the totalities of all experiences, they serve to mark out the limits of the concepts of understanding, and also serve to help us see the whole world of experiences “in perspective”. So they do not have a constitutive function within experience, as the concepts of understanding do, but they have a regulative function in positioning ourselves in relation to the world. As such, the ideas of God and the soul, although they cannot be the constitutive elements of a dogmatic metaphysics, they do have a regulative role in the critical metaphysics of the foundation of morals. We have no knowledge of an immortal soul or of an omnipotent God, but the only way we can conceive of ourselves as moral agents is to look upon ourselves *as if* we were the free, autonomous creatures of a loving, omnipotent God, to whom we owe moral duty. [nn. 359; 363] That is to say, we have to conceive of ourselves as citizens of two worlds: the autonomous moral agents of the world of noumena, acting in the causally determined physical world of phenomena.