

## QUESTION 7

### God's Infinity

Having examined God's perfection, we must now examine His infinity (question 7) and His existence in all things (question 8). For it is insofar as God is uncircumscribable and infinite that it is attributed to Him that He is everywhere and in all things.

On the first topic there are four questions: (1) Is God infinite? (2) Is anything besides Him infinite in its essence (*infinitum secundum essentiam*)? (3) Can anything be infinite in magnitude? (4) Can there be an infinite multitude of things?

#### Article 1

##### Is God infinite?

It seems that God is not infinite:

**Objection 1:** Anything infinite is imperfect, since, as *Physics* 3 says, it has the nature of a part and of matter. But God is utterly perfect. Therefore, He is not infinite.

**Objection 2:** According to the Philosopher in *Physics* 1, *finite* and *infinite* belong to [the genus of] quantity. But there is no quantity in God, since, as was shown above (q. 3, a. 1), He is not a body. Therefore, being infinite does not belong to Him.

**Objection 3:** Whatever is *here* in such a way that it is not somewhere else is finite with respect to place. Therefore, whatever is *this* in such a way that it is not something else is finite with respect to substance. But God is *this* and not something else; for instance, He is not a rock or a piece of wood. Therefore, God is not infinite with respect to substance.

**But contrary to this:** Damascene says, "God is infinite and eternal and uncircumscribable."

**I respond:** According to *Physics* 3, all the ancient philosophers attribute infinity to the first principle—and reasonably so—arguing that entities flow from the first principle *ad infinitum*.

However, the fact that some of them were in error about the nature of the first principle led them to err about His infinity. For they thought that the first principle is matter, and as a result they attributed material infinity to the first principle, claiming that the first principle of things is an infinite body.

Note, therefore, that something is called infinite in virtue of the fact that it is not limited. But matter is in a certain way limited by form, and form is in a certain way limited by matter. Specifically, matter is limited by form in the sense that before it receives a form, matter is in potentiality with respect to many forms, whereas once it receives a single form, it is limited by that form. Form, on the other hand, is limited by matter in the sense that a form, considered in itself, is common to many things, but once it is received in matter, it becomes determinately the form of just this thing.

Now matter is perfected by the form through which it is limited, and so infinity, as attributed to matter, has the nature of an imperfection; for it is, as it were, matter without form.

By contrast, a form is not perfected by matter; instead, its scope is contracted by the matter. Hence, infinity, as attributed to a form not determined by matter, has the nature of perfection. But, as is clear from what was said above (q. 4, a. 1), that which is the most formal of all things is *esse* itself. Therefore, since God's *esse* is not received in anything, and since, as was shown above (q. 3, a. 4), He is His own subsistent *esse*, it is clear that God Himself is infinite and perfect.

**Reply to Objection 1:** The reply to this objection is clear from what has been said.

**Reply to Objection 2:** The terminus of a quantity is like a form of the quantity. A sign of this is that shape, which consists in the termination of a quantity, is a certain form with respect to quantity. Hence, the type of infinity that belongs to quantity is an infinity on the part of the matter and, as has been

explained, this type of infinity is not attributed to God.

**Reply to Objection 3:** God's *esse* is distinct from all other things, and all other things are distinct from it, by the very fact that it is subsistent *per se* and not received in anything (which is why it is called infinite). In the same way, if there were a subsistent whiteness, then by the very fact that it did not exist in another, it would differ from every whiteness that exists in a subject.

## Article 2

### Can anything other than God be infinite through its essence?

It seems that something other than God can be infinite through its essence (*infinitum per essentiam*):

**Objection 1:** The power of an entity is proportionate to its essence. Therefore, if God's essence is infinite, then His power must be infinite. Therefore, He can produce an infinite effect, since the quantity of an entity's power is known from its effect.

**Objection 2:** Whatever has infinite power has an infinite essence. But a created intellect has infinite power, since it apprehends the universal, which can extend to infinitely many singulars. Therefore, every created intellectual substance is infinite.

**Objection 3:** As was shown above (q. 3, a. 8), primary matter is distinct from God. But primary matter is infinite. Therefore, something besides God can be infinite.

**But contrary to this:** As *Physics* 3 explains, what is infinite cannot come from any principle. But everything that is distinct from God comes from God as a first principle. Therefore, nothing other than God can be infinite.

**I respond:** Something other than God can be infinite in a certain respect (*secundum quid*), but not absolutely speaking (*non simpliciter*).

For if we are speaking of infinity insofar as it belongs to matter, then it is clear that everything existing in actuality has some form or other, and so the matter is terminated through its form. But insofar as it exists under a substantial form, the matter remains in potentiality with respect to many accidental forms. For this reason, though it is finite, absolutely speaking, it can be infinite in a certain respect. For example, a piece of wood is finite by virtue of its form, but it is nonetheless infinite in a certain respect, since it is in potentiality with respect to infinitely many shapes.

On the other hand, if we are speaking of infinity insofar as it belongs to form, then it is clear that things whose forms exist in matter are finite, absolutely speaking, and not infinite in any way at all. However, if there are created forms that are not received in matter but instead subsist *per se*—as some believe with respect to angels—then they will indeed be infinite in a certain respect, insofar as forms of this sort are neither terminated nor limited by any matter. Still, because a created form that subsists in this way has *esse* and is not its own *esse*, its *esse* must be received in and limited to a determinate nature. Hence, it cannot be infinite absolutely speaking.

**Reply to Objection 1:** It is contrary to the nature of an entity that is produced that the entity's essence should be its very *esse*. For subsistent *esse* is not created *esse*. Hence, it is contrary to the nature of something that is produced that it should be infinite, absolutely speaking. So just as God, even though He has infinite power, cannot produce something that is not produced (for this would be for contradictories to be true at the same time), so too He cannot produce something that is absolutely infinite.

**Reply to Objection 2:** The fact that the intellect's power extends in some sense to infinitely many

things stems from the fact that the intellect is a form that does not exist in matter, but is either (a) totally separate from matter, as in the case of the substances of angels, or at least (b) an intellective power that is not the act of any [corporeal] organ, as in the case of an intellective soul that is conjoined to a body.

**Reply to Objection 3:** Primary matter does not exist in reality by itself, since it is not a being in actuality, but is instead a being merely in potentiality. Hence, it is something that is co-created (*aliquid concreatum*) rather than created. Still, even with respect to potentiality, primary matter is infinite only relatively speaking and not absolutely. For its potentiality extends only to natural forms.

### Article 3

#### Can anything be actually infinite in magnitude?

It seems that something can be actually infinite in magnitude (*infinitum actu secundum magnitudinem*):

**Objection 1:** In the mathematical sciences there is no falsity, since, as *Physics 2* says, “there is no falsehood among abstract things.” But the mathematical sciences make use of infinite magnitude; for instance, in his demonstrations the geometer says, “Let such-and-such a line be infinite.” Therefore, it is not impossible for something to be infinite in magnitude.

**Objection 2:** If something is not contrary to a given nature, then it is not impossible for it to belong to that nature. But to be infinite is not contrary to the nature of magnitude; to the contrary, *finite* and *infinite* seem to be properties of quantity. Therefore, it is not impossible for some magnitude to be infinite.

**Objection 3:** A magnitude is infinitely divisible, since, as is clear from *Physics 3*, a continuous thing is defined as that which is divisible *ad infinitum*. But contraries are apt to be effected with respect to the same thing. Therefore, since addition is opposed to division, and since increase is opposed to decrease, it seems that a magnitude can increase *ad infinitum*. Therefore, it is possible for there to be an infinite magnitude.

**Objection 4:** As *Physics 4* says, movement and time have quantity and continuity from the magnitude over which the movement passes. But it is not contrary to the nature of time and movement that they be infinite, since any designated indivisible contained in time or in a circular movement is both a beginning point and an endpoint. Therefore, neither will it be contrary to the nature of a magnitude that it be infinite.

**But contrary to this:** Each body has a surface. But each body that has a surface is finite, since a surface is the terminus of a finite body. Therefore, each body is finite. And the same thing that is said of a surface can also be said of a line. Therefore, nothing is infinite in magnitude.

**I respond:** Being infinite in essence (*infinitum secundum essentiam*) is different from being infinite in magnitude (*infinitum secundum magnitudinem*). For even if a body—say, fire or air—were infinite in magnitude, it would still not be infinite in essence, since its essence would be limited to some species by its form and to some individual by its matter.

And so, assuming on the basis of what has been said (a. 2) that no creature is infinite in essence, we still need to ask whether any creature might be infinite in magnitude.

Note that the notion of a body, i.e., a complete magnitude, can be taken in two ways—viz., (a) *mathematically*, in which case only its quantity is considered, or (b) *naturally*, in which case its matter and form are considered.

As far as a *natural* body is concerned, it is clear that no body can be actually infinite. For each

natural body has a determinate substantial form, and since its accidents follow upon its substantial form, it must be that determinate accidents follow upon a determinate form. And among these accidents is quantity. Hence, each natural body has a greater or lesser determinate quantity. Hence, it is impossible for any natural body to be infinite.

This is also clear from movement (*ex motu*). Each natural body has a natural movement. But an infinite body could not have any natural movement:

(a) It could not have natural movement along a straight line, since nothing moves naturally with a straight movement except when it goes beyond its own place. But this could not happen with an infinite body, since it would occupy all places, and so every place would equally be its own place.

(b) Nor, likewise, could an infinite body have a circular movement. For in a circular movement it has to be the case that one part of the body is transferred to a place where another part previously was. But if we posit an infinite circular body, then this would not be possible. For two lines protracted from the center [of the body] become more and more distant from each other as they are protracted farther and farther from the center. So if the body in question were infinite, the lines would be infinitely distant from one another and, as a result, the one line could never arrive at the place of the other.

The same argument holds in the case of a *mathematical* body as well. For if we are to imagine a mathematical body existing in actuality, then we must imagine it as existing under some form, since nothing is actual except through a form. Hence, since the form of a body with quantity (*forma quanti*) as such is a shape, the body will have to have some shape. And so it will be finite, since a shape is that which is circumscribed by a limit or limits.

**Reply to Objection 1:** The geometer does not need to assume that any line is actually infinite. Rather, what he needs to do is to posit some actually finite line from which he can take however much he requires. And this he calls an infinite line.

**Reply to Objection 2:** Even though *infinite* is not contrary to the general nature of magnitude, it is nonetheless contrary to the nature of each of the species of magnitude—that is, it is contrary to the nature of a two-cubit magnitude or a three-cubit magnitude, etc., whether that magnitude be circular or triangular, etc. But a genus cannot contain anything that is not contained in any of its species. Hence, it is impossible for there to be any infinite magnitude, since none of the species of magnitude is infinite.

**Reply to Objection 3:** As has been said (a. 1), *infinite* as applied to quantity is taken from the matter. By the division of a whole one ends up with matter, since the parts are related to one another in the nature of matter. Through addition, on the other hand, one ends up with [another actual] whole, which is related to the nature of form. And so the infinite is found not in the addition of magnitude, but only in its division.

**Reply to Objection 4:** Movement and time are actual not as wholes, but successively. Hence, they have potentiality mixed in with their actuality. By contrast, a magnitude is an actual whole. And so *infinite* as applied to quantity and taken from the matter is incompatible with a whole magnitude, but not with the whole composed of time or movement. For existing in potentiality belongs to matter.

#### Article 4

##### Can there be an actual infinite multitude of things?

It seems that it is possible for there to be an actual infinite multitude (*possibile sit esse multitudinem infinitam secundum actum*):

**Objection 1:** It is not impossible for that which exists in potentiality to be brought into actuality.

But number can be increased to infinity. Therefore, it is not impossible for there to be an actual infinite multitude.

**Objection 2:** Any given species is such that it is possible for there to be an actual individual [of that species]. But there are infinitely many species of shape. Therefore, it is possible for there to be infinitely many shapes existing in actuality.

**Objection 3:** Things that are not opposed to one another do not impede one another. But, given any fixed multitude of things, there can be still other things not opposed to them. Therefore, it is not impossible for some further things to exist simultaneously with them, and so on *ad infinitum*. Therefore, it is possible for there to be infinitely many actual things.

**But contrary to this:** Wisdom 11:21 says, “You have ordered all things in measure, and number, and weight.”

**I respond:** On this matter there have been two opinions.

Some, like Avicenna and Al-Ghazali, have claimed that it is impossible for there to be an actual infinite multitude of things *per se*, but that it is not impossible for there to be an infinite multitude *per accidens*.

A multitude is said to be infinite *per se* when something requires for its existence that there be an infinite multitude. And this is impossible, since if it were possible, then something would have to depend for its generation on infinitely many things, and thus the generation would never be completed, since it is impossible to traverse an infinite multitude.

On the other hand, a multitude is said to be infinite *per accidens* when an infinite multitude is not required for anything, but instead it is incidental that there should be such a multitude.

This can be made clear from a carpenter’s work, for which a certain multitude is required *per se*—e.g., the skill existing in the carpenter’s soul, the movement of his hands, and the hammer. If such things were multiplied to infinity, then the carpenter’s construction would never be completed, because it would depend on infinitely many causes. But the number of hammers that might result from one being broken and another being taken up is a *per accidens* multitude. For the carpenter could work with many different hammers, and it would make no difference whether he worked with one or two or more—or even infinitely many if he worked for an infinite stretch of time.

On the basis of this line of reasoning, then, they claimed that it is possible for there to be an actual infinite multitude of things *per accidens*.

But this is impossible. For every multitude must be contained under some species of multitude, and the species of multitude correspond to the species of number. But no species of number is infinite, since each number is such that it is a multitude measured by the unit. Hence, it is impossible for there to be an actual infinite multitude, whether it be *per se* or *per accidens*.

Likewise, the multitude of things existing in nature is created, and every created entity is included within some fixed intention of the creator, since an agent does nothing in vain. Hence, all created things are included under a set number (*sub certo numero omnia creata comprehendantur*). Therefore, it is impossible for there to be an actual infinite multitude, even *per accidens*.

However, it is indeed possible for there to be an infinite multitude in potentiality, since an increase in multitude is consequent upon the division of a magnitude. For the more something is divided, the greater the number of things that result. Hence, just as the infinite is found in potentiality in the division of a continuous thing—since, as was shown above (a. 3), such a division proceeds in the direction of the matter—so too for the same reason the infinite is found in potentiality in the addition of a multitude.

**Reply to Objection 1:** Each thing that exists in potentiality is brought into actuality in a way that accords with the mode of its being. For example, a day is brought into actuality not as a simultaneous whole, but instead successively; and, similarly, an infinite multitude is brought into actuality not as a

simultaneous whole, but successively. For given any multitude, another multitude can be added, *ad infinitum*.

**Reply to Objection 2:** The species of shape have infinity from the infinity of number. For the species of shape are the trilateral, the quadrilateral, and so on. Hence, just as a denumerable infinite multitude is not brought into actuality as a simultaneous whole, so neither is a multitude of shapes.

**Reply to Objection 3:** Even though, with certain things posited, the positing of other things is not opposed to them, still, for infinitely many things to be posited is in fact opposed to every species of multitude. Hence, it is not possible for there to be any actual infinite magnitude.