

Objection 1. It seems that there can be something actually infinite in magnitude. For in mathematics there is no error, since “there is no lie in things abstract,” as the Philosopher says (Phys. ii). But mathematics uses the infinite in magnitude; thus, the geometrician in his demonstrations says, “Let this line be infinite.” Therefore it is not impossible for a thing to be infinite in magnitude.

Objection 2. Further, what is not against the nature of anything, can agree with it. Now to be infinite is not against the nature of magnitude; but rather both the finite and the infinite seem to be properties of quantity. Therefore it is not impossible for some magnitude to be infinite.

Objection 3. Further, magnitude is infinitely divisible, for the continuous is defined that which is infinitely divisible, as is clear from Phys. iii. But contraries are concerned about one and the same thing. Since therefore addition is opposed to division, and increase opposed to diminution, it appears that magnitude can be increased to infinity. Therefore it is possible for magnitude to be infinite.

Objection 4. Further, movement and time have quantity and continuity derived from the magnitude over which movement passes, as is said in Phys. iv. But it is not against the nature of time and movement to be infinite, since every determinate indivisible in time and circular movement is both a beginning and an end. Therefore neither is it against the nature of magnitude to be infinite.

On the contrary, Every body has a surface. But every body which has a surface is finite; because surface is the term of a finite body. Therefore all bodies are finite. The same applies both to surface and to a line. Therefore nothing is infinite in magnitude.

I answer that, It is one thing to be infinite in essence, and another to be infinite in magnitude. For granted that a body exists infinite in magnitude, as fire or air, yet this could not be infinite in essence, because its essence would be terminated in a species by its form, and confined to individuality by matter. And so assuming from these premises that no creature is infinite in essence, it still remains to inquire whether any creature can be infinite in magnitude.

We must therefore observe that a body, which is a complete magnitude, can be considered in two ways; mathematically, in respect to its quantity only; and naturally, as regards its matter and form.

Now it is manifest that a natural body cannot be actually infinite. For every natural body has some determined substantial form. Since therefore the accidents follow upon the substantial form, it is necessary that determinate accidents should follow upon a determinate

form; and among these accidents is quantity. So every natural body has a greater or smaller determinate quantity. Hence it is impossible for a natural body to be infinite. The same appears from movement; because every natural body has some natural movement; whereas an infinite body could not have any natural movement; neither direct, because nothing moves naturally by a direct movement unless it is out of its place; and this could not happen to an infinite body, for it would occupy every place, and thus every place would be indifferently its own place. Neither could it move circularly; forasmuch as circular motion requires that one part of the body is necessarily transferred to a place occupied by another part, and this could not happen as regards an infinite circular body: for if two lines be drawn from the centre, the farther they extend from the centre, the farther they are from each other; therefore, if a body were infinite, the lines would be infinitely distant from each other; and thus one could never occupy the place belonging to any other.

The same applies to a mathematical body. For if we imagine a mathematical body actually existing, we must imagine it under some form, because nothing is actual except by its form; hence, since the form of quantity as such is figure, such a body must have some figure, and so would be finite; for figure is confined by a term or boundary.

Reply to Objection 1. A geometrician does not need to assume a line actually infinite, but takes some actually finite line, from which he subtracts whatever he finds necessary; which line he calls infinite.

Reply to Objection 2. Although the infinite is not against the nature of magnitude in general, still it is against the nature of any species of it; thus, for instance, it is against the nature of a bicubical or tricubical magnitude, whether circular or triangular, and so on. Now what is not possible in any species cannot exist in the genus; hence there cannot be any infinite magnitude, since no species of magnitude is infinite.

Reply to Objection 3. The infinite in quantity, as was shown above, belongs to matter. Now by division of the whole we approach to matter, forasmuch as parts have the aspect of matter; but by addition we approach to the whole which has the aspect of a form. Therefore the infinite is not in the addition of magnitude, but only in division.

Reply to Objection 4. Movement and time are whole, not actually but successively; hence they have potentiality mixed with actuality. But magnitude is an actual whole; therefore the infinite in quantity refers to matter, and does not agree with the totality of magnitude; yet it agrees with the totality of time and movement: for it is proper to matter to be in potentiality.