

Prepared for Codeless app.

NOTE: This is an example of my writing and editing work and abilities. Section 1 are the words of Descartes. Section 2 begins my commentary, thoughts, and writing. The chart scene at the beginning of section 2 is also my design and creation.

Excerpt from my unpublished work: *There is No place That Is Empty: Unfinished Thoughts In Philosophical Theology*.

There is No Place that is Empty

Section 1

From Rene Descartes, “Principles of Philosophy” (Translated by Haldane and Ross, p. 262-264):

Principle XVI. That it is contrary to reason to say that there is a vacuum or space in which there is absolutely nothing

As regards a vacuum in the philosophic sense of the word, i.e. a space in which there is no substance, it is evident that such cannot exist, because the extension of space or internal place, is not different from that of body. For, from the mere fact that a body is extended in length, breadth, or depth, we have reason to conclude that it is a substance, because it is absolutely inconceivable that nothing should possess extension, we ought to conclude also that the same is true of the space which is supposed to be void, i.e. that since there is in it extension, there is necessarily also substance.

Principle XVII. That a vacuum, in the ordinary sense, does not exclude all body.

And when we take this word vacuum in its ordinary sense, we do not mean a place or space in which there is absolutely nothing, but only a place in which there are none of those things which we expect to find there. Thus because a pitcher is made to hold water, we say it is empty when it contains nothing but air; or if there are no fish in a fish-pond, we say that there is nothing in it, even though it be full of water; similarly we say a vessel is empty, when, in place of the merchandise it was designed to carry, it is loaded only with sand, so that it may resist the impetuous violence of the wind; and finally we say in the same way that a space is empty when it contains nothing sensible, even though it contain created matter and self-existent substance; for we are not wont to consider things excepting those with which our senses succeed in presenting us. And if, in place of keeping in mind what we should comprehend by these words—vacuum and nothing—we afterwards suppose that in the space which is termed vacuum there is not only nothing sensible, but nothing at all, we shall fall into the same error as if, because a pitcher is usually termed empty since it contains nothing but air, we were therefore to judge that the air contained in it is not a substantive thing.

Principle XVIII. How the prejudice concerning the absolute vacuum is to be corrected.

We have almost all lapsed into this error from the beginning of our lives, for, seeing that there is no necessary connection between the vessel and the body it contains, we thought that God at least could remove all the body contained in the vessel without its being necessary that any other body should take its place. But in order that we may be able to correct this error, it is necessary to remark that while there is no connection between the vessel and that particular body which it contains, there is an absolutely necessary one between the concave figure of the vessel and the extension considered generally which must be comprised in this cavity; so that there is not more contradiction in conceiving a mountain without a valley, than such a cavity without the extension which it contains, or this extension without the substance which is extended, because nothing, as has already been frequently remarked, cannot have extension. And therefore, if it is asked what would happen if God removed all the body contained in a vessel without permitting its place being occupied by another body, we shall answer that the sides of the vessel will thereby come into immediate contiguity with one another. For two bodies must touch when there is nothing between them, because it is manifestly

contradictory for these two bodies to be apart from one another, or that there should be a distance between them, and yet that this distance should be nothing; for distance is a mode of extension, and without extended substance it cannot therefore exist.¹

Principle XXI. *That extension of the world is likewise indefinite.*

We likewise recognise that this world, or corporeal substance in a universal sense, is extended without limit, because wherever we imagine a limit we are not only still able to imagine beyond that limit spaces indefinitely extended, but we perceive these to be in reality such as we imagine them, that is to say that they contain in them corporeal substance indefinitely extended. For, as has been already shown very fully, the idea of extension that we perceive in any space whatever is quite evidently the same as the idea of corporeal substance.

Section 2

Reading these triggered these reflections . . .

First, let's discuss what Descartes meant by the term *extension*. Simply put, extension refers to the sum total of the length, breadth, and depth that any corporeal body or material object occupies. If I take a small but solid rubber ball, the size of which can fit comfortably in my hand, and I hold it under water, the ball (plus my hand that is holding it there) has displaced a specific amount of water. The ball and the hand have made room for themselves in the water and can be said to have *extension*.²

The Ball and the Bucket of Water:

An Illustration
of Descartes
Concept of
Extension



The ball is a ball
and the bucket of water
is a bucket of water

The ball is the earth
and the bucket of water
is our galaxy

The ball is our galaxy
and the bucket of water
is the universe

The ball is the universe
and the bucket of water
is whatever is holding
our universe in place

If there can be said to be something called “space” where planets, asteroids, comets, and stars exist and where they are held there “in place” as it were, then it would seem to support the case for a universe filled with a substance which surrounds the objects we see, a kind of matter that we cannot see but matter nonetheless. In this way we cannot say that there was empty space and then the so-called Big Bang, at least not in the space that we think we would observe sans planets, stars, comets, etc. Even the so-called empty place had to be created in order to hold other objects in place. Further, we must ask what substance holds what we know

as space in *its* place? It is not the same substance as what we now call space for it must differ if it serves to hold in place that which holds in place the stars, planets, asteroids, etc. Otherwise, if it were not different, it would simply be more of the same and would be mixed with it and be indistinguishable from the space which it is supporting.

An example of this would be placing water within water. We don't say the water inserted is being held up or supported by water it was inserted into. Once water is placed into other water it cannot be extracted in its original form because water plus water equals water. So unless we are prepared to say that the universe is infinite, then it must have an end; a limitation—a place where it collides with that which holds its extension in place.

Descartes said that the corporeal substance of a planet is in keeping with the substance of the extension.

¹ A modern example of this principle is what happens when a vacuum is created in any large structure resulting in a collapse of the structure. The vacuum representing Descartes absence of “the body contained in a vessel.”

² John Eustace, “The pre-eminent property of corporeal substance which constitutes its essence and nature is extension. The essence of matter then is extension, according to Descartes. As he puts it in his physical treatise ‘Le Monde’, referring to matter he tells us ‘I conceive its extension, or the property it has of occupying space, not at all as an accident, but as its true form and essence.’ Extension is the essence of matter then. Whatever has spatial extension is matter and matter, by definition, is that which has spatial extension. Spatial extension, then, constitutes matter. What is spatial extension? It is length, breadth and thickness, the three straight lines that constitute Euclidean space. So that which has length, breadth and thickness is matter and all matter, on this definition, has length, breadth and thickness.” Accessed 4/12/19 @ <http://www.minerva.mic.ul.ie/vol11/eustac1.html>
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“because the extension of space or internal place, is not different from that of body” (Principle XVI above)

It does not follow, however, that we can in any way say that the extension of what we call space continues infinitely simply because we imagine it to be so. Whatever we decide is the nature of that which is holding that which has extension, it is itself being held in place by that which makes it possible to remain in place for the objects that depend on it. For example, the container holding the reservoir of water into which we submerged a solid rubber ball, is itself sustained by the table on which the reservoir is sitting, which in turn is held up by the foundation of the house, held up by the ground, etc. All of which has extension. If we continue this to include the whole earth, the galaxy, the particular quadrant of the universe in which our galaxy is located, ad infinitum, we finally must ask, “Into what substance is the solid rubber ball of our universe being submerged?”

Therefore, in keeping with the idea of Primary substance, we must postulate that, beyond the observable universe, and beyond the continuation of what we see (but cannot to the point where it must of necessity leave off where that which holds it in place takes up), there we must posit some substance primary to it, and beyond that, primary to *it*, etc., until we at last arrive at that substance which is necessarily Primary to all else. This we call God. Incidentally, this logic is an important response, even rebuttal to the postulation of previous universes or other universes, the multi-verse theory. Even if that theory or something similar be embraced, all must stem from a Primary substance.

There is no place that is empty.

Put more simply . . . If I can imagine reaching the end of what we presently refer to as “space,” finding there a wall where space ends (I’m not saying that we would find a wall, just imagining something that would mark the farthest reach of the known universe), I conclude that something must be beyond the wall—at least something must be holding up the wall! It may be something completely different than anything anyone has ever imagined, but it must, in some way, be a substance with extension that allows the universe and everything in it to be suspended within it. The universe—and by universe I mean all the visible and so-called invisible matter that possesses extension: observable and that which continues beyond our observation—is upheld by whatever is on the other side of the wall. I must posit that there is something and not nothing beyond the wall, even if, as Descartes stated, we do not find there what we expected to find.

Therefore, as per Aristotle in his *Categories* (5: par. 3), “If the primary substances did not exist it would be impossible for any of the other things to exist,” and since, as per Aquinas, this arrangement “cannot go on to infinity,”³ we arrive at the place where we must posit something within which all of this must exist, something to which there is no end but also no further wall to be found.

The universe cannot be infinite. Though some speak of *infinite* in terms of how long it will exist—its temporal dimensions (a question which seems mute since nothing that was created could be called infinite as far as its temporality goes since it had a beginning)—I speak of it in *spatial* terms. The two may be sides of the same coin since travelling an infinite distance would require an infinite amount of time.

For the universe to be infinite in a spatial sense would mean that God Himself could not exist outside of it, otherwise it would not be infinite. If the universe *were* infinite, one would never be able to travel to its ends even if one could dedicate an eternity to it. But this in itself would not require it to itself be eternal. For an entity to be able to extend its force or power to create something infinite, it itself would have to be infinite. But neither does this prove an infinite universe.

If the universe were indeed spatially infinite it would also then be a place inside which God would have to exist.

³ Thomas Aquinas, *Summa Theologica: Volume I, Question 2, Article Three* (Westminster, Maryland: Christian Classics, 1981), 13.