

Episode 260 - The Universe Is Infinite And Eternal And Has No Gods Over It

Post by “Cassius” of December 18, 2024 at 10:25 PM

Programming Note: This Episode 260 marks the time of year when we are completing five full years of podcasting. Our first episode was posted on Soundcloud on January 11, 2020, and on Spreaker (our current podcast home) on January 13, 2020. Thanks to all our podcasters over the years, and thanks to Joshua for pointing out our anniversary!

Welcome to Episode 260 of Lucretius Today. This is a podcast dedicated to the poet Lucretius, who wrote "On The Nature of Things," the most complete presentation of Epicurean philosophy left to us from the ancient world.

Each week we walk you through the Epicurean texts, and we discuss how Epicurean philosophy can apply to you today. If you find the Epicurean worldview attractive, we invite you to join us in the study of Epicurus at EpicureanFriends.com, where we discuss this and all of our podcast episodes.

This week we are continuing our review of the key doctrines of Epicurus that are featured here at Epicureansfriends on the front page of our website.

This week we will address what Epicurus and Lucretius use as the starting point for the discussion of Epicurean physics: nothing can come from nothing.

Discussion Outline here: [Episode 260 - The Universe Is Infinite And Eternal And Has Not Gods Over It](#)

<https://www.spreaker.com/episode/63465313>

Post by “Joshua” of December 19, 2024 at 9:27 AM

Edited to say five full years! January 2020 to January 2025.

Post by “Joshua” of December 22, 2024 at 10:58 AM

Quote

In his book *The Sand Reckoner*, Archimedes set out to demonstrate methods for dealing mathematically with extremely large numbers, such as the number of grains of sand which would fill the universe (hence the title of his book). Of course to arrive at the largest number possible, he had to find a description of the largest theoretical universe known in which to place his grains, and for that he turned to Aristarchus. Having explained to his patron, King Gelon, that most astronomers believed the earth to be the center of the universe, around which everything else rotated, he added almost as an aside:

But Aristarchus has brought out a book consisting of certain hypotheses, wherein it appears, as a consequence of the assumptions made, that the universe is many times greater than the “universe” just mentioned. His hypotheses are that the fixed stars and the sun remain unmoved, that the earth revolves about the sun on the circumference of a circle, the sun lying in the middle of the orbit, and that the sphere of fixed stars, situated about the same centre as the sun, is so great that the circle in which he supposes the earth to revolve bears such a proportion to the distance of the fixed stars as the centre of the sphere bears to its surface.

--Archimedes, *The Sand Reckoner*, chapter 1:4-5

Here then was Aristarchus’s great thought, preserved only as a reference in another book. Archimedes for his part did not even believe it to be true, only being interested in the sheer scale of the model he proposed.

The response to Aristarchus’s hypothesis of a heliocentric solar system was perhaps to be predicted and may in itself help to explain why so few of his own works survive. Contemporaries were horror-struck by the new role this Alexandrian astronomer gave to the earth and, by implication, to the people on it. How dare he take away their special position at the very heart of creation? One of them, by the name of Cleanthes, wrote a treatise entitled simply *Against Aristarchus*. This has since been lost, so we don’t know on what grounds he attacked Aristarchus, but Plutarch would later comment that Cleanthes

thought it was the duty of the Greeks to indict Aristarchus of Samos on charges of impiety for putting in motion the Hearth of the Universe (i.e. the Earth), this being the effect of his attempt to save the phenomena by

supposing heaven to remain at rest and the Earth to revolve in an oblique circle, while it rotates at the same time, about its own axis.

--Plutarch, On the Face Which Appears on the Orb of the Moon, book 6

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--*The Rise and Fall of Alexandria*, by Justin Pollard and Howard Reid

Post by “Cassius” of December 22, 2024 at 9:07 PM

We had good recording today, and I hope to get this one issued by midweek. However, from the editing I have done already I have to take a tangent:

I know we've discussed this before, but it seems to me that there is a very important parallel between Epicurus' analysis of *atoms* and *pleasure*.

First, Epicurus' method of reasoning in physics is based on facts derived from the senses, but it is ultimately logical in the way it uses those observations:

Quote

Epicurus, Letter to Herodotus 41—2 (1) Moreover, the totality of things is infinite. (2) For that which is finite has an extremity, and that which is an extremity is viewed as next to some further thing. Therefore having no extremity it has no limit. And not having a limit it would be infinite [literally 'unlimited'] and not finite. (3) Indeed, the totality of things is infinite both in the number of the bodies and in the magnitude of the void. (4) For if the void were infinite but the bodies finite, the bodies would not remain anywhere but would be travelling scattered all over the infinite void, for lack of the bodies which support and marshal them by buffering. (5) And if the void were finite, the infinite bodies would not have anywhere to be.

Epicurus builds logical theories on the evidence that is existing. He take the evidence and applies logic to deduce a high level conclusion about what "must" be. He isn't *primarily* talking anything that we would today consider to be chemistry or physics after 2000 years of applied study of details.

He's talking something more important than any set of sensations: he's talking about how to take sensations to reach conclusions. He's talking in an "If $A + B = C$ then If $C - A$ must equal B " kind of way. He could just as well be talking about monkeys or bananas as atoms or planets.

The logical truth of the formulation applies at all levels.

To continue.... the universe is (1) bodies and (2) space --- nothing else:

Quote from Letter to Herodotus

Moreover, the universe is bodies and space: for that bodies exist, sense itself witnesses in the experience of all men, and in accordance with the evidence of sense we must of necessity judge of the imperceptible by reasoning, as I have already said....

[40] And if there were not that which we term void and place and intangible existence, bodies would have nowhere to exist and nothing through which to move, as they are seen to move. And besides these two, nothing can even be thought of either by conception or on the analogy of things conceivable such as could be grasped as whole existences and not spoken of as the accidents or properties of such existences. Furthermore, among bodies some are compounds, and others those of which compounds are formed.

This means that EVERYTHING is composed of bodies made of atoms and space. Sure there are innumerable types of bodies moving through innumerable areas of space -- but at the highest level of analysis, besides these two - bodies and space - nothing else is conceivable.

In ethics, Epicurus is transferring that kind of analysis to "feeling." He is stipulating that ALL feelings are ultimately reducible to either pleasure or pain. Besides the two categories of feelings -- pleasure and pain -- nothing else is conceivable because that is the way we have defined the playing field. We frequently gloss over the question of whether he was right to do this - right to divide every feeling into pain and pleasure, but Epicurus feels himself justified in doing so in the same kind of way he is justified in dividing every *thing* into atoms and void. That's philosophy more than it is an applied science - it is the assignment of a definition to a word.

Epicurus was making a statement about pleasure ("where there is pleasure there is no pain") that is absolutely true within the Epicurean framework of there being only two feelings, pleasure and pain. This is highly parallel to making the statement that "where there is an atom is no space." That is absolutely true within the atomist framework, but ultimately it is a *deduction*, not an observation that is validated directly by the senses.

Such a high a level of abstraction helps us tremendously in understanding how pleasure can be seen as absence of pain, and pain can be seen as absence of pleasure. In the same way we can consider all of nature to be divided between atoms and space: we can consider an atom to mean the absence of space, and space to mean the absence of body in that location.

But those are high level abstractions! We deduce them to be true based on the evidence of the senses, but they are deductions, not particular sensations. To take "absence of pain" to refer to

a particular type of pleasure would be as absurd as taking "absence of space" to refer to a *particular type of body*. Neither describe actual sensations!

High level abstractions have very important uses, but they tell you *absolutely nothing further* about the particular pleasure or the particular body being described. We have to stop at the limit of what is being asserted, and not make the mistake that we are asserting something more than logic can conclude. Logic cannot tell us what experience is most pleasant to us in every respect, but only in the respect that what we are talking about is "pure" and "unadulterated."

If this perspective is correct, as I think it is, then in referring to "absence of pain" Epicurus and Torquatus were talking about pleasure *in general* rather than describing a *particular type or experience of pleasure*. Logic cannot fully describe a particular pleasure or a particular atom. Logic can only give us what we put into it, and in the expression "pleasure is the absence of pain" we have put nothing into it other than the principles that (1) one is desirable and the other undesirable, and (2) the existence of one is to the exclusion of the other. At the end of the analysis we have principles, not descriptions of specific pleasures or specific atoms.

It is impossible that Cicero did not realize this, and that's why DeWitt was justified in indicting Cicero for acting maliciously. (Dewitt's accusation, without looking it up, was to the effect that *Cicero could not have misrepresented Epicurus so effectively had he not understood Epicurus so well.*)

Cicero knew that Epicurus and Torquatus were speaking at the level of the general (pleasure as an abstraction), but Cicero refused to let Torquatus explain the difference between the general and the particular. Torquatus was allowed no real opportunity to explain that connection.

Cicero thereby led his readers to think that "absence of pain" was meant as a description of a particular experience rather than an abstraction. Cicero rightly understood that readers who were not already familiar with Epicurus would fail to see through the deception. And Cicero encouraged his readers not to try to understand Epicurus. After all, as Cicero said, if he himself (Cicero) could not understand Epicurus' meaning, how could anyone else expect to?

Post by "Cassius" of December 24, 2024 at 4:08 PM

Lucretius Today Episode 260 is now available: "[The Universe is Infinite And Eternal And Has No Gods Over It](#)"

<https://www.speaker.com/episode/63465313>

<https://www.epicureanfriends.com/thread/4189-episode-260-the-universe-is-infinite-and-eternal-and-has-no-gods-over-it/>