

Thinking About Epicurean Viewpoints Such As The Eternal / Infinite Universe, And How To Discuss Them

Post by "Don" of January 10, 2021 at 11:33 PM

Thank you, [Cassius](#) , for putting that post together. There's a LOT to unpack there. Here are some initial thoughts.

Cosmos, world, universe. The English words here obscure and obfuscate what Epicurus actually said. There's an interesting excerpt from the Letter to Pythokles:

Quote

[DL X.88]... ...A world is a circumscribed portion of the universe, which contains stars and earth and all other visible things, cut off from the infinite, and terminating [and terminating in a boundary which may be either thick or thin, a boundary whose dissolution will bring about the wreck of all within it] in an exterior which may either revolve or be at rest, and be round or triangular or of any other shape whatever. All these alternatives are possible : they are contradicted by none of the facts in this world, in which an extremity can nowhere be discerned. [89] "That there is an infinite number of such worlds can be perceived, and that such a world may arise in a world or in one of the intermundia (by which term we mean the spaces between worlds) in a tolerably empty space and not, as some maintain, in a vast space perfectly clear and void.

The "world" here is [kosmos] <http://www.perseus.tufts.edu/hopper/morph?l...0:chapter=1&i=1>

The "universe" is [ouranos] the "vault or firmament of heaven" <http://www.perseus.tufts.edu/hopper/morph?l...r=1&i=1#lexicon>

It almost seems to me that in this case, the [kosmos] is the "visible universe" and the [ouranos] is the entire universe. But it also seems like the cosmos (to use the usual English spelling of that word) is the only part of the universe that we have access to because the cosmos has "stars and earth and all other visible things, cut off from the infinite, and terminating [and terminating in a boundary...]"

Now, I'm betting that Epicurus's concept of the cosmos was the Earth surrounded by a firmament of fixed stars and moving planets in the sky/heavens/ouranos. That is *our* cosmos. But the ouranos was bigger than our cosmos and could include other cosmoi to which we may not have access. And the extent of these cosmoi -- ours plus all the rest -- were [apeiros] <http://www.perseus.tufts.edu/hopper/morph?l...r=1&i=5#lexicon> literally "not-limited" or boundless or infinite. According to the Pythokles letter, our cosmos *has* some kind of

boundary but exists in an infinite heaven (NOTE: This has NOTHING to do with a religious "heaven"! Poetic nomenclature only for the expanse of the universe.] Our cosmos is just a piece of the infinite. So, our cosmos could be both infinite and bounded. Wrap your brain around this one: <https://math.stackexchange.com/questions/8897...ite-and-bounded>

I have more thoughts to come, but I wanted to end on this. I firmly believe that one must avoid equating Epicurus's atomos with our modern concept of an atom. Epicurus's point was that the atomos (and I'm purposefully using the Greek transliteration to make the point) was a finite particle of stuff that was "uncuttable". It didn't change and was also distinct from what it made up. Atomoi made up dogs, trees, and people but there were not dog-atomoi, tree-atomoi, and people-atimoi. His primary mission in this was to contend against rival theories of his day. He wasn't trying to establish the Standard Model of quarks, gluons, mesons we have today. He'd be intrigued by this maybe, but I don't think he'd change his system. His system was adequate for his purposes. So when people slight him or try to dismiss him or try to shoehorn atomoi into the modern Standard Model, they all miss some part of the point. If you need an analog for atomoi in the modern theories, my suggestion is to think of them more as elements that make up molecules. The elements don't change whether they're in a star, a tree, or your big toe. They come together to form compounds. The elements -as building blocks - are a basic constituent of compounds. That's what Epicurus wanted to get across. There are basic building blocks in the Cosmos that can be put together in infinite ways. He posited that these building blocks were uncuttable to avoid the problem of an infinite regression. He *decided* you have to stop somewhere. That somewhere for him was the level of the atomos. You don't need to go further to account for the things in the cosmos.