

New Article Attacking Epicurean Physics: "Science Versus the Oldest Anti-Intelligent Design Argument "

Post by "Cassius" of May 13, 2024 at 1:55 PM

My first reaction to this new article is that the view ascribed to Epicurus ("Since the universe is infinite, there are enough opportunities for every possible arrangement of atoms to occur eventually, even the most unlikely. Our world, and the life on it, is one of those unlikely (but eventually inevitable) arrangements.") is not what Epicurus really said. That quoted sentence does include the word "possible," but I don't gather that he is using "possible" in the same way as did Epicurus or Lucretius.

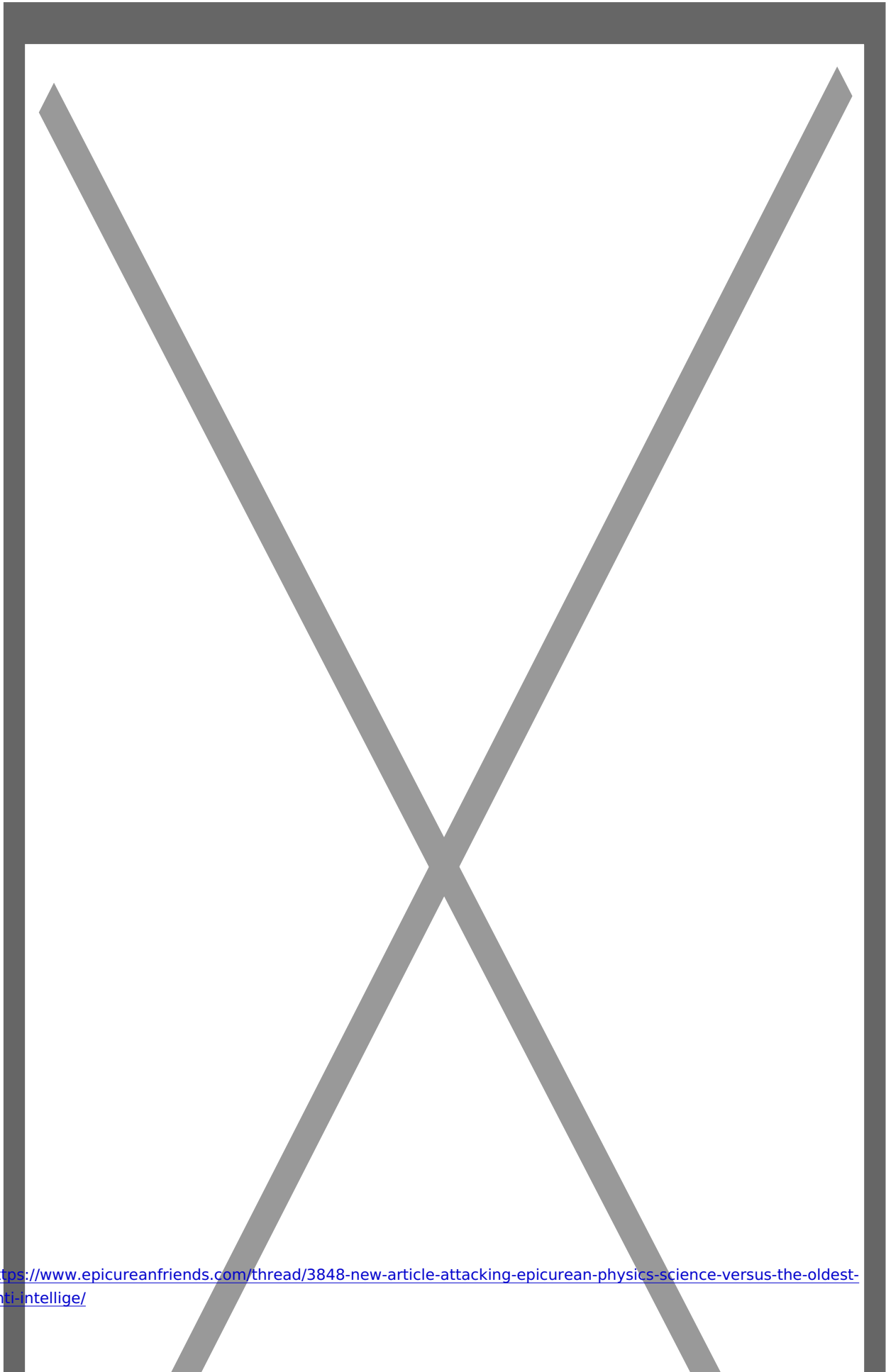
While the lead-in that there was no intelligent design for the entire universe is certainly true, it appears to me that this is going to be one of those examples of not scrutinizing the meaning of "random" closely enough, and winding up with an "anything is possible given enough time and space" which is not what Epicurus or Lucretius said.

Rather, as Lucretius said, "[62] When human life to view lay foully prostrate upon earth crushed down under the weight of religion, who showed her head from the quarters of heaven with hideous aspect lowering upon mortals, a man of Greece ventured first to lift up his mortal eyes to her face and first to withstand her to her face. Him neither story of gods nor thunderbolts nor heaven with threatening roar could quell: they only chafed the more the eager courage of his soul, filling him with desire to be the first to burst the fast bars of nature's portals. Therefore the living force of his soul gained the day: on he passed far beyond the flaming walls of the world and traversed throughout in mind and spirit the immeasurable universe; whence he returns a conqueror to tell us what can, what cannot come into being; in short on what principle each thing has its powers defined, its deep-set boundary mark."

So as I understand this issue in Epicurean terms, certain things are possible, and others are impossible, no matter how much time or space are involved. Donating an infinitely large number of typewriters to an infinitely large number monkeys for an infinite time will NEVER produce the complete works of Shakespeare.

Probably lots to discuss here over time - this writer is far too eager to "bench" Epicurus.

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<https://www.epicureanfriends.com/thread/3848-new-article-attacking-epicurean-physics-science-versus-the-oldest-anti-intellige/>

[Science Versus the Oldest Anti-Design Argument | Evolution News](#)

Translation: Everything that exists was made not by intelligent design, but rather by the random arrangement and rearrangement of atoms.

evolutionnews.org

While I don't know that this article addresses the question directly, my go-to article on chance and randomness in Epicurean theory is:

File

[Long: "Chance and Natural Law In Epicureanism"](#)



Long: "Chance and Natural Law In Epicureanism"



Cassius

June 28, 2019 at 8:52 AM

And this quote below (as well as the title "Science" vs.....) is why I reject the blanket benediction of the word "science" (without reference to the specific who and how and why and explanation of the "science") as well as the idea that the "big bang" answers anything. As Epicurus asked his teachers, What existed before the "big bang? Where did the big bang come from? And what about the space beyond that which is currently observable?"

Quote from "A Crumbling Foundation" (?)

But the old fallback is not as reliable as it once seemed. The first crack was the discovery of cosmic expansion, just a few decades after Darwin proposed his theory. After more than two thousand years of Epicurean influence, and contrary to the assurances of mainstream physicists at the time, it turned out that the universe was not eternal, and probably not infinite. That meant it was no longer a given that any improbability could be explained by the sheer size and age of the universe.

Post by "Martin" of May 13, 2024 at 2:05 PM

Quote

Donating an infinitely large number of typewriters to an infinitely large number of monkeys for an infinite time will NEVER produce the complete works of Shakespeare.

It would infinite times because the number of letters on a typewriter is finite and the number of letters in Shakespeare's works is finite!

The formation of life on Earth had similar odds.

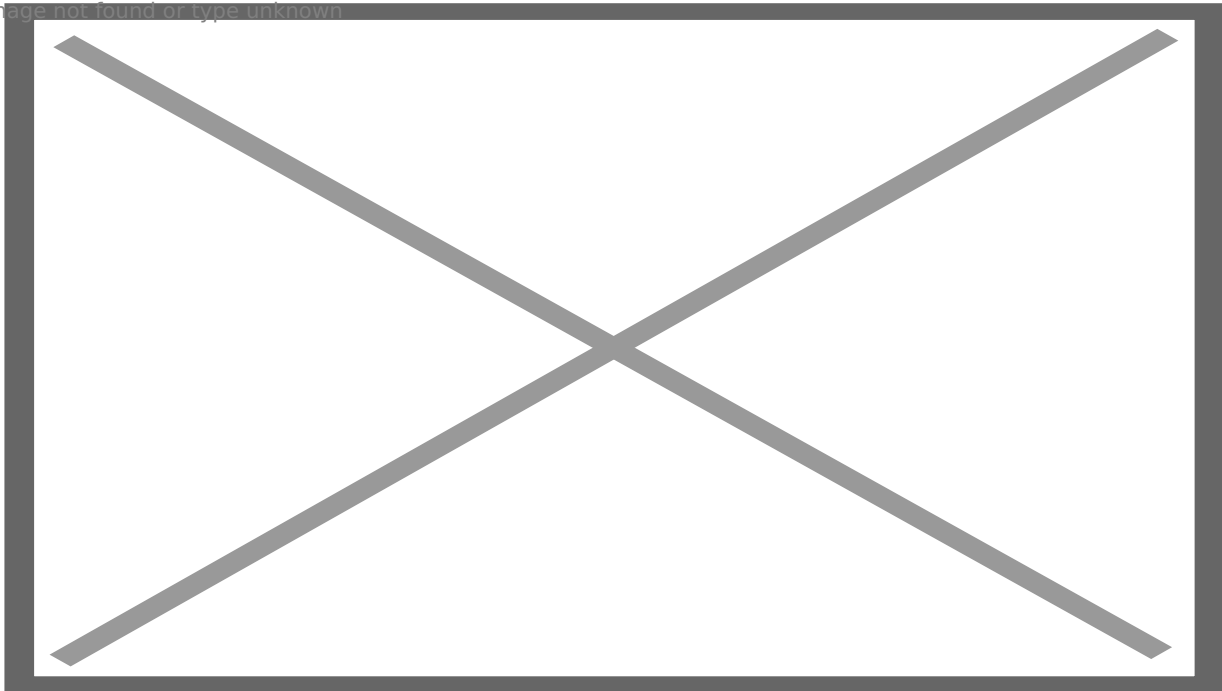
Post by "Cassius" of May 13, 2024 at 2:16 PM

Ok that's a great way at getting at the question. If I need to revise the statement then I certainly will -- have you seen a discussion of this issue that explains the background?

Post by "Cassius" of May 13, 2024 at 2:17 PM

Here's one:

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[Infinite monkey theorem in popular culture - Wikipedia](https://en.wikipedia.org/wiki/Infinite_monkey_theorem)
en.wikipedia.org

More to the point: https://en.wikipedia.org/wiki/Infinite_monkey_theorem

Post by “Cassius” of May 13, 2024 at 2:35 PM

....And after reading those articles I am as confused as ever! 😊 It appears that the assumptions involved in the words setting up the sentence are going to determine the "answer."

Post by “Cassius” of May 13, 2024 at 2:40 PM

[Quote from Martin](#)

<https://www.epicureanfriends.com/thread/3848-new-article-attacking-epicurean-physics-science-versus-the-oldest-anti-intellige/>

The formation of life on Earth had similar odds.

Since we're setting up all sorts of good questions to ask, I am not sure that I would intuitively agree with this either. The whole idea that the universe consists of "truly random" events seems to me to be very questionable, and that the better alternative view is (as I interpret Epicurus, maybe incorrectly) that the world is the result of natural un-designed combinations of atoms with fixed natures (suitable seeds) (but not truly "random" in the sense of all combinations being possible) which therefore limits the possibilities and disposes toward some results more than others.

Given that life exists on Earth, we know that the possible combinations leading to life are non-zero (out of "nine" planets, in fact, one has life). So I would think that the "chances" of repetition of things that we know to exist is far greater than the chance of occurrence of things that we intuitively grasp have never existed in our experience (monkeys have never in our past duplicated Shakespeare).

I'll be the first to admit that these questions are not easy to answer, but almost certainly they were grappled with by the ancient Epicureans, so we should grapple with them too.

Post by "Cassius" of May 13, 2024 at 3:02 PM

One of the sections of the letter to Herodotus that has always seemed to me of closest relevance to issues like this is the following ([Bailey translation](#)). I've highlighted a couple of phrases that seem particularly of note.

[74] And further we must believe that these worlds were neither created all of necessity with one configuration **nor yet with every kind of shape**. Furthermore, we must believe that in all worlds there are living creatures and plants and other things we see in this world; for indeed no one could prove that in a world of one kind there might or might not have been included the kinds of seeds from which living things and plants and all the rest of the things we see are composed, and that in a world of another kind they could not have been.

[75] Moreover, we must suppose that human nature too was taught and constrained to do many things of every kind merely by circumstances; and that later on reasoning elaborated what had been suggested by nature and made further inventions, in some matters quickly, in others slowly, at some epochs and times making great advances, and lesser again at others. And so names too were not at first deliberately given to things, but men's natures according to their different nationalities had their own peculiar feelings and received their peculiar

impressions, and so each in their own way emitted air formed into shape by each of these feelings and impressions, according to the differences made in the different nations by the places of their abode as well.

[76] And then later on by common consent in each nationality special names were deliberately given in order to make their meanings less ambiguous to one another and more briefly demonstrated. And sometimes those who were acquainted with them brought in things hitherto unknown and introduced sounds for them, on some occasions being naturally constrained to utter them, and on others choosing them by reasoning in accordance with the prevailing mode of formation, and thus making their meaning clear.

[77] Furthermore, the motions of the heavenly bodies and their turnings and eclipses and risings and settings, and kindred phenomena to these, must not be thought to be due to any being who controls and ordains or has ordained them and at the same time enjoys perfect bliss together with immortality (for trouble and care and anger and kindness are not consistent with a life of blessedness, but these things come to pass where there is weakness and fear and dependence on neighbors). Nor again must we believe that they, which are but fire agglomerated in a mass, possess blessedness, and voluntarily take upon themselves these movements. But we must preserve their full majestic significance in all expressions which we apply to such conceptions, in order that there may not arise out of them opinions contrary to this notion of majesty. Otherwise this very contradiction will cause the greatest disturbance in men's souls. Therefore we must believe **that it is due to the original inclusion of matter in such agglomerations during the birth-process of the world that this law of regular succession is also brought about.**

(This last highlighted section being referenced, if I recall correctly from the AA Long article on Chance and Natural law, as indicating that as to non-intelligent beings there is in fact a major aspect of necessity/determinism, in that the atoms can only combine in ways that are consistent with their natures, and that while there are an infinite NUMBER of atoms, there are not infinite TYPES of atoms, but in fact a limited number of types, as indicated in the first highlighted area.)

Post by "TauPhi" of May 13, 2024 at 3:42 PM

My initial thoughts. I didn't spend any time validating them so feel free to correct me as I probably got some of the stuff wrong.

[Quote from Cassius](#)

So as I understand this issue in Epicurean terms, certain things are possible, and others are impossible, no matter how much time or space are involved. Donating an infinitely large number of typewriters to an infinitely large number monkeys for an infinite time will NEVER produce the complete works of Shakespeare.

The example with the monkeys doesn't illustrate the claim preceding the example. In our universe we don't have infinity of possible creations. As far as matter is concerned, the variety of atoms is strictly limited by universal laws governing the universe. Since we have limited building blocks types and constrains in the form of universal laws which have to be obeyed, the universe is not a place where anything goes.

The monkey example has no restrictions and non-zero chance under unrestricted conditions changes to certainty occurring infinite numbers of times.

[Quote from Cassius](#)

So I would think that the "chances" of repetition of things that we know to exist is far greater than the chance of occurrence of things that we intuitively grasp have never existed in our experience

That sentence is true only if we talk about possible things in the universe which is finite and lasts for finite amount of time. In infinite universe the chances of occurrence of possible things whether known or unknown to us is the same and it's infinite.

Post by "Cassius" of May 13, 2024 at 4:08 PM

[Quote from TauPhi](#)

In our universe we don't have infinity of possible creations. As far as matter is concerned, the variety of atoms is strictly limited by universal laws governing the universe. Since we have limited building blocks types and constrains in the form of universal laws which have to be obeyed, the universe is not a place where anything goes.

I think that is an excellent point and it is where I (intuitively) think Epicurus is coming from.

In addition, we have no reason to think, and therefore we should not think, that there are "other universes" in which there are an infinitely larger number of infinite types of atoms that do in fact create an "anything goes" environment.

I *think* that takes us back to the article, and what I perceive to be a point of the article, which I read as asserting that Epicurus was advocating for an "anything goes" universe, when in fact he was not.

Now maybe this sentence does not say that

"Since the universe is infinite, there are enough opportunities for every possible arrangement of atoms to occur eventually, even the most unlikely. Our world, and the life on it, is one of those unlikely (but eventually inevitable) arrangements."

.. but I would say it comes awfully close to saying that, and that it would be better to be clear that Epicurus's argument against intelligent design does not end up being an "anything goes" universe.

Post by "Cassius" of May 13, 2024 at 4:14 PM

Quote

But new discoveries seem to have finished what the Big Bang theory started. It is becoming increasingly undeniable that the building blocks of life are far too unlikely to emerge by chance even in a universe as large and old as ours.

For a long time, Epicurus' version of the universe seemed probable to many. After natural philosophers realized how vast the universe really was, and again after the existence of atoms was confirmed, Epicurus seemed to be vindicated. But now, we have discovered that however vast the universe may be, it is finite, and its size does not hold a candle to the vast improbability of the miracle that is life. After more than 2,000 years, the original foundation of materialist naturalism in Western thought seems to be crumbling. The question is: how long will it take for the worldview built on that foundation to crumble too?

So what IS this guy's point? Is he arguing for intelligent design? A quick scan of the website "about" section does not make clear the site's orientation.

OK I guess the site does contain clues:

TRENDING

C. S. Lewis on the Gullibility of the Elites

Dawkins Now on "Team Christianity"

Dawkins the New Cultural Christian

Two Measures of Intelligent Design's Advance

A Wonderful Debate About "Junk DNA"

This link originally came up through a Google search, so that's how I found it.

Post by "Cassius" of May 13, 2024 at 4:34 PM

This is probably too deep in the weeds to be of immediate use, but since I found it, here is a philosophy professor's attack on a book which is apparently well-thought-of by the website that published the attack on Epicurus:

<https://fitelson.org/dembski.pdf>

What is of immediate relevance is being articulate with the allegation that Epicurus' views of the nature of the universe have been refuted by modern physics and no longer serve as a sound basis for arguing against intelligent design.

We ought to be able to state Epicurus' position clearly and show that it is neither refuted nor no longer relevant to the "creationist" argument.

And in that respect I think the monkeys and typewriters will serve to illustrate the proper (and improper) way of looking at "randomness" as an aspect of Epicurean physics.

Post by "TauPhi" of May 13, 2024 at 5:30 PM

<https://www.epicureanfriends.com/thread/3848-new-article-attacking-epicurean-physics-science-versus-the-oldest-anti-intellige/>

[Quote from Cassius](#)

I think that is an excellent point and it is where I (intuitively) think Epicurus is coming from.

You don't need to rely on intuition in this case. Epicurus deviated from Democritean physics by limiting the variety of atoms. By doing this he automatically put a stop to 'anything goes' universe.

[Quote from Cassius](#)

In addition, we have no reason to think, and therefore we should not think, that there are "other universes" in which there are an infinitely larger number of infinite types of atoms that do in fact create an "anything goes" environment.

I disagree. We should think about everything we are capable of imagining. Almost all of these ideas will be proven wrong but by thinking about everything we can think of, at least we give ourselves a chance of coming up with something brilliant.

[Quote from Cassius](#)

So what IS this guy's point?

In the quotation you provided, it is clear that this guy makes up arguments as he goes to support his point which can be challenged by a five-years-old.

... It is discovered that the universe is finite? Really? By whom?

... Materialist naturalism is crumbling? Really? Where besides this guy's own mind?

... Improbability of the miracle that is life... Right. That explains everything. Let's go with miracles, unicorns and rainbows. That approach is so much better than putting effort in studying our surroundings.

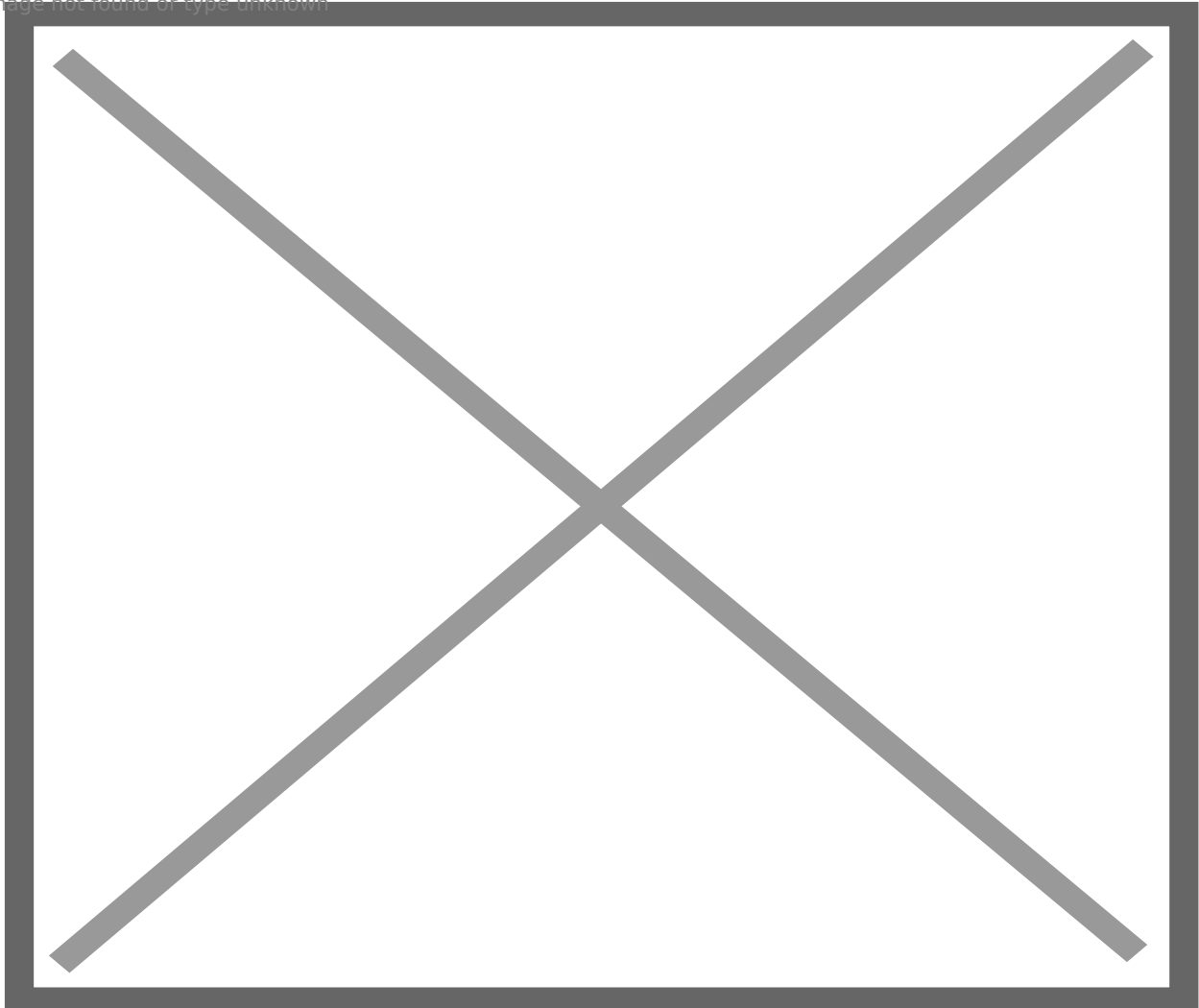
Post by “kochiekoch” of May 17, 2024 at 9:15 AM

Yeah. This guy, in the top note, is assuming that the universe is finite, in order to salvage intelligent design. The evidence, so far, shows a geometrically FLAT universe. As far as we can see in the observable cosmos.

[What shape is the universe? \(astronomy.com\)](https://www.astronomy.com)

The implication of a flat universe is that it is infinite, or so unimaginably huge it might as well be. 🤔

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[Is the universe infinite or finite? Or is it so close to infinite that for all practical purposes it is? | Astronomy.com](https://www.astronomy.com)

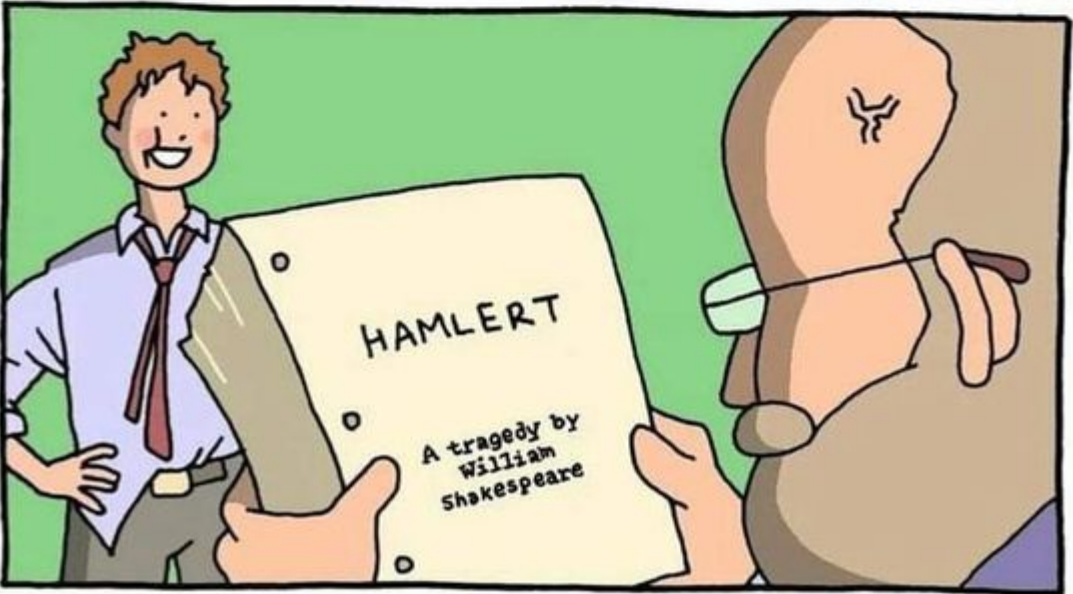
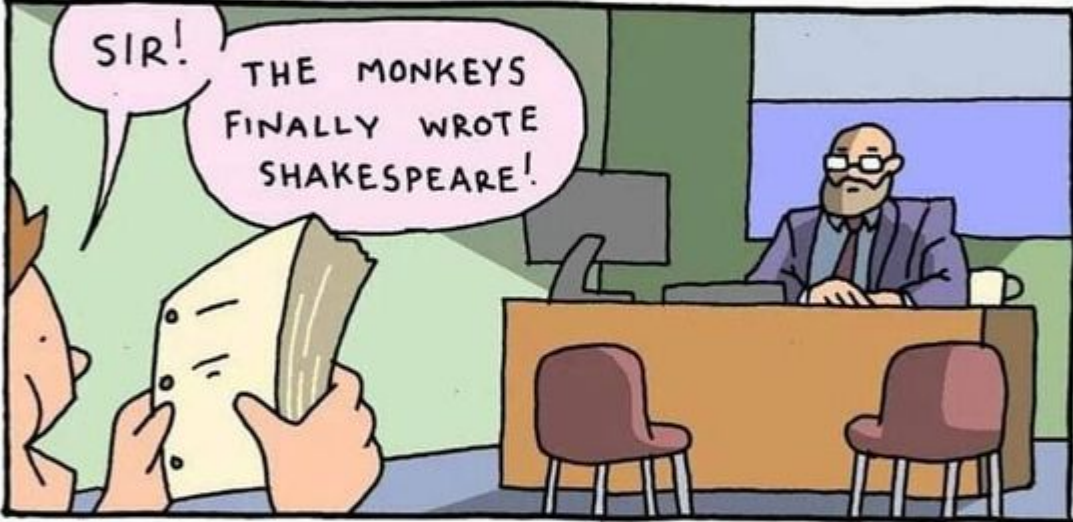
categories:Science | tags:Astrophysics, Magazine
www.astronomy.com

The universe is very old and VERY big, and ANYTHING that is allowed by physics is bound to occur.

Post by “Martin” of September 8, 2024 at 7:04 AM

<https://www.epicureanfriends.com/thread/3848-new-article-attacking-epicurean-physics-science-versus-the-oldest-anti-intellige/>

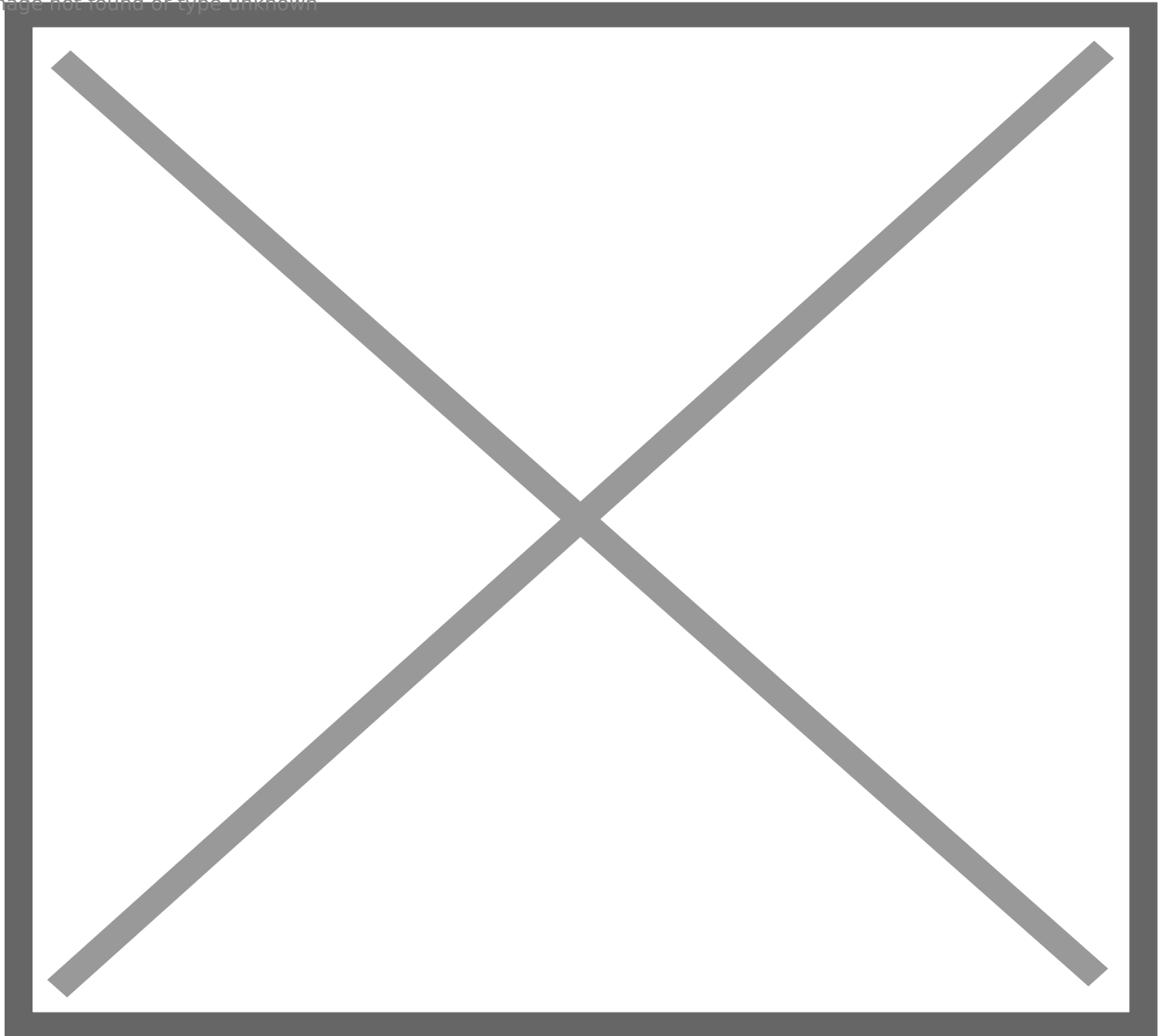
Beetlemoses imagines how it may happen:



Post by "Cassius" of November 3, 2024 at 6:13 PM

Thanks to Kalosyni for this link. I don't agree with a premise of this article (that the universe as a whole will come to an end) so in the end it doesn't deal with true infinity. But still it's new and on point with the discussion so throwing it into the hopper

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['Infinite monkey theorem' challenged by Australian mathematicians](#)

Australian researchers have poked holes in an old thought-experiment known as the "infinite monkey theorem".

www.bbc.com

<https://www.epicureanfriends.com/thread/3848-new-article-attacking-epicurean-physics-science-versus-the-oldest-anti-intellige/>