

Episode Thirty-Four - The Atoms Do Not Possess A Faculty of Sensation

Post by "Cassius" of August 29, 2020 at 12:41 PM

Welcome to Episode Thirty-Four of Lucretius Today.

I am your host Cassius, and together with my panelists from the EpicureanFriends.com forum, we'll walk you through the six books of Lucretius' poem, and discuss how Epicurean philosophy can apply to you today. Be aware that none of us are professional philosophers, and everyone here is a self-taught Epicurean. We encourage you to study Epicurus for yourself, and we suggest the best place to start is the book, "Epicurus and His Philosophy" by Canadian professor Norman DeWitt.

Before we start, here are three ground rules.

First: Our aim is to bring you an accurate presentation of [classical Epicurean philosophy](#) as the ancient Epicureans understood it, which may or may not agree with what you here about Epicurus at other places today.

Second: We aren't talking about Lucretius with the goal of promoting any modern political perspective. Epicurus must be understood on his own, and not in terms of competitive schools which may seem similar to Epicurus, but are fundamentally different and incompatible, such as Stoicism, Humanism, Buddhism, Taoism, Atheism, and Marxism.

Third: The essential base of Epicurean philosophy is a fundamental view of the nature of the universe. When you read the words of Lucretius you will find that Epicurus did not teach the pursuit of virtue or of luxury or of simple living. or science, as ends in themselves, but rather the pursuit of pleasure. From this perspective it is **feeling** which is the guide to life, and not supernatural gods, idealism, or virtue ethics. And as important as anything else, Epicurus taught that there is no life after death, and that any happiness we will ever have must come in THIS life, which is why it is so important not to waste time in confusion.

Now let's join the discussion with today's text:

Latin text location: Approximately [lines 865-943](#)

Munro Summary: [Notes on the text](#)

865 — 885 : all things which have sense come from insensible elements : a visible proof of this you may see in living worms rising from the putrid earth: again grass and water change into cattle, the flesh of cattle into men, men often go to feed beasts and birds : nature turns food

into what has life and sense, much as dry wood passes into flame; so much is effected by transposition and mixture and motions of elements. That the soul, the vital principle and sense were born and died with the body in all creatures, was of course a necessary doctrine of the Epicureans and is passionately asserted by Lucretius.

886-930: the mind tries hard not to believe that sense can come from what has not sense; for stones wood clods can by no mixture produce it: but, mind, it is not every element that can beget sense; only certain atoms with certain shapes and arrangements : yet even these woods and clods may, as we have seen, give birth sometimes to living things. But they who say that sense can only come from what has sense, suppose elements to be soft, as we never see sense united but with what is soft: now suppose such elements eternal; they must have the sense of some part or of the whole living thing: but no part can feel away from the whole thing: well then these elements must be like the whole living thing: if they are living then, they are thereby liable to death; but even if they are not, they would make a mere medley of living things, like the impossible unions of men and brutes : but if they lose their own sense, why then give it only to take it away? nay we have just seen that sense can come from what has no sense.

931-943: If it be said sense comes from what has not sense by a process of change or a sort of birth, I answer, birth and change both imply a previous union : before the creature is begotten, its body cannot have sense, as its matter is dispersed abroad and has not come together in a way to awake any of the senses.—This passage is obscure: he must apparently be alluding to the stoics.

Browne

Now farther, those beings we see indued with sense, you must needs own are produced from insensible seeds; nor is there anything we perceive by common experience, which refutes or opposes this opinion. Everything rather leads us on, and compels us to believe that animals, I say, proceed from principles that are void of sense; for we observe living worms come into being from stinking dung, when the earth, moistened by unseasonable showers, grows putrid and rotten. Besides, beings of all kinds undergo continual changes; the waters, the leaves, and the sweet grass turn themselves into beasts; the beasts convert their nature into human bodies; and the bodies of wild beasts and birds increase and grow strong by these bodies of ours. Nature therefore changes all sorts of food into living bodies; and hence she forms the senses of all creatures, much after the same manner as she quickens dry wood into fire, and sets everything in a blaze. You see now it is of the utmost importance in what order these first seeds are ranged, and, when mingled together, what motions they give, and receive among themselves.

But tell me, what is it that lays a force upon your mind? What moves you? What drives you into another opinion, that you should not believe a thing sensible can be formed from insensible seeds? Perhaps you observe that stones, and wood, and earth, when mingled together, can produce no creature indued with sense; but you will do well to remember, upon this occasion,

that I did not say things sensible, or sense, could instantly proceed from all seeds in general, which go to the production of beings, but that it was of great consequence of what size the seeds are that created a being of sense, with what figures, motions, order, and position they are distinguished. Nothing of which we observe in wood, or clods of Earth. Yet these, when they are made rotten by moisture, produce worms, because the particles of matter, being changed from their former course by some new cause, are so united and disposed, that living creatures are formed, and creep into being.

Besides, those who contend that a sensible being may be raised from sensible seeds, (and this you are taught by some philosophers), must needs allow those seeds to be soft; for all sense is joined to bowels, nerves, and veins, all which, we know, are soft, and consequently liable to change and dissolution. But grant their seeds to be eternal, yet if they are sensible, each seed must be endued with sense, either as a part or a whole, and be like a complete animal of itself; but no single part can perceive or exist of itself, for each part requires a union with the other parts, to make it capable of sense, nor can the hand feel any more, or any other part retain its sense, when separated from the body. These seeds therefore must be perfect animals, and so unite together in a vital sensibility; but how then can be seeds be said to be eternal, and secure from death, when they have the nature of animals, and are one and the same with them in all respects, and therefore are mortal, and must die? But allow these seeds to be sensible and Incorruptible too, yet, by their union and agreement, they can produce nothing but animals and things sensible; that is, mankind, and cattle, and wild beasts, can produce nothing but men, and cattle, and wild beasts. (How then could things insensible, such as trees, metals, have a being?)

If you say these seeds, in mingling together, lose their own proper sense, and assume another, what need you impute any sense at all to them, when they must lose it again? Besides, as we have proved before, since we perceive the eggs of birds are changing into living young, and that worms break out of the earth, when it is made rotten by unseasonable showers, we may conclude, that things sensible may arise from insensible seeds. If anyone will assert here that sense indeed may proceed from insensible seeds, by sort of change made in the seeds, by virtue of the thing that generates, before the animal is formed, it will be sufficient plainly to show him, that no animal can be formed but by a union, first of the seeds, nor can anything be changed but by agreement of the seeds, so that there can be no such thing as sense in any body before the animal is completely formed. And for this reason: because the seeds lie scattered in the air, the water, the earth, the fire, nor have they yet united together, after a proper manner, into any vital motions by which the senses of any animal may be produced, in order to guide and preserve it.

Munro:

To come to another point, whatever things we perceive to have sense, you must yet admit all composed of senseless first-beginnings: manifest tokens which are open to all to apprehend, so far from refuting or contradicting this, do rather themselves take us by the hand and constrain us to believe that, as I say, living things are begotten from senseless things. We may see in fact living worms spring out of stinking dung, when the soaked earth has gotten putridity after excessive rains; and all things besides change in the same way: rivers leaves and glad pastures change into cattle, cattle change their substance into our bodies, and often out of these the powers of wild beasts and the bodies of the strong of wing are increased. Therefore nature changes all foods into living bodies and engenders out of them all the senses of living creatures, much in the same way as she dissolves dry woods into flames and converts all things into fires.

Now do you see that it is of great moment in what sort of arrangement the first-beginnings of things are severally placed and with what others they are mixed up, when they impart and receive motions? Then again what is that which strikes your mind, affects that mind and constrains it to give utterance to many different thoughts, to save you from believing that the sensible is begotten out of senseless things? Sure enough it is because stones and wood and earth however mixed together are yet unable to produce vital sense. This therefore it will be well to remember herein, that I do not assert that the sensible and sensations are forthwith begotten out of all elements without exception which produce things; but that it is of great moment first how minute the particles are which make up the sensible thing and then what shape they possess and what in short they are in their motions arrangements and positions. None of which conditions we find in woods and clods; and yet even these when they have so to speak become rotten through the rains bring forth worms, because bodies of matter driven from their ancient arrangements by a new condition are combined in the manner needed for the begetting of living creatures.

Next they who hold that the sensible can be produced out of sensible elements, accustomed thus to derive their own sense from elements [which are sensible] in their turn, [do thus render their own seeds mortal,] when they make them soft; for all sense is bound up with flesh, sinews and veins; which in everything ye see to be soft and formed of a mortal body. But even suppose that these things can remain eternal: they must yet I presume either have the sense of some part or else be deemed to possess a sense similar to the entire living creatures. But the parts cannot possibly have sense by themselves alone; for all sense of the different members has reference to something else; nor can the hand when severed from us nor any other part of the body whatever by itself maintain sensation. It remains to assume that they resemble the entire living creatures. In this case it is necessary that they should feel the things which we feel in the same way as we do, in order that they may be able in all points to work in concert with the vital sense. How then can they be called first-beginnings of things and shun the paths of death, seeing that they are living things, and that living things are one and the same with mortal things? Nay, granting they could do this, yet by their meeting and union they will make nothing but a jumble and medley of living things; just you are to know as men cattle and wild beasts

would be unable to beget any other thing by all their mixing with one another.

But if haply they lose from their body their own sense and adopt another, what use was it to assign what is again withdrawn? Moreover, the instance to which we had before recourse, inasmuch as we see the eggs of fowls change into living chicks and worms burst forth, when putridity has seized on the earth after excessive rains, you are to know that sensations can be begotten out of no-sensations. But if haply any one shall say that sense so far may arise from no-sensation by a process of change, or because it is brought forth by a kind of birth, it will be enough to make plain and to prove to him that no birth takes place until a union of elements has first been effected, and that nothing changes without their having been united. Above all senses cannot exist in any body before the nature of the living thing itself has been begotten because sure enough the matter remains scattered about in air, rivers, earth, and things produced from earth, and has not met together and combined in appropriate fashion the vital motions by which the all-discerning senses are kindled into action in each living thing.

Bailey:

It must needs be that you should admit that all things which we see have sense are yet made of insensible first-beginnings. The clear facts, which are known for all to see, neither refute this nor fight against it, but rather themselves lead us by the hand and constrain us to believe that, as I say, living things are begotten of insensible things. Why we may see worms come forth alive from noisome dung, when the soaked earth has gotten muddiness from immeasurable rains; moreover, we may see all things in like manner change themselves. Streams, leaves, and glad pastures change themselves into cattle, cattle change their nature into our bodies, and from our bodies the strength of wild beasts often gains increase, and the bodies of birds strong of wing. And so nature changes all foods into living bodies, and out of food brings to birth all the senses of living things, in no far different way than she unfolds dry logs into flames and turns all things into fires. Do you not then see now that it is of great matter in what order all the first-beginnings of things are placed, and with what others mingled they give and receive motions?

Next then, what is it, that strikes on the very mind, which stirs it and constrains to utter diverse thoughts, that you may not believe that the sensible is begotten of the insensible? We may be sure it is that stones and wood and earth mixed together yet cannot give out vital sense. Herein it will be right to remember this, that I do not say that sensations are begotten at once from all and every of the things which give birth to sensible things, but that it is of great matter, first of what size are these bodies, which create the sensible, and with what form they are endowed, then what they are in their motions, arrangements and positions. And none of these things can we perceive in logs and sods; and yet, when they are, as it were, made muddy through the rains, they give birth to little worms, because the bodies of matter stirred by the newcomer from their old arrangements are brought into union in the way in which living things are bound to be begotten. Next, those who think that the sensible could be created out of sensible bodies which in turn were used to owe their sense to others, [these make the seeds of their own sense mortal], when they make them soft. For all sensation is linked to flesh, sinews and veins, which

we see are always soft in nature built up of mortal body.

But still let us grant now that these can abide for ever: still doubtless they must either have the sense proper to a part, or be thought to be of a sense like to that of whole living things. But it must needs be that the parts cannot have sense by themselves; for all sensation in the limbs depends on us, nor severed from us can the hand nor any part of the body at all keep sensation by itself. It remains that they are made like whole living things. Thus it must needs be that they feel likewise what we feel, so that they may be able to share with us in every place in the vital sensations. How then will they be able to be called the first-beginnings of things and to shun the paths of death, since they are living things, and living things are one and the same with mortal things? Yet grant that they can, still by their meeting and union, they will make nothing besides a crowd and mob of living things, even as, as you may know, men, herds of cattle and wild beasts could not beget anything by coming together with one another. But if by chance they lose their own sense, when inside a body, and receive another, what good was it that that should be assigned to them which is taken away? Then, moreover, as we saw before, inasmuch as we perceive the eggs of birds turn into living chickens, and worms swarm out when mud has seized on the earth owing to immoderate rains, we may know that sensations can be begotten out of that which is not sensation.

But if by chance any one shall say that sensation can in any case arise from not-sensation by change of substance or, as it were, by a kind of birth, by which it is thrust out into being, it will be enough to make clear and prove to him that birth cannot come to be, unless when a union has been formed before, nor is anything changed except after union. First of all, no body at all can have sensation before the nature of the living thing is itself begotten, because, we may be sure, its substance is scattered abroad and is kept in the air, in streams, in earth and things sprung from earth, nor has it come together in appropriate way and combined with one another the vital motions, whereby the all-seeing senses are kindled and see to the safety of each living thing.

Post by “Cassius” of August 30, 2020 at 8:48 AM

Potentially analogous thoughts from other Epicurean sources on animate beings arising from inanimate seeds:

[Frances Wright, A Few Days in Athens, Chapter 15](#)- Discussion between Theon, Metrodorus, and Leontium:

Theon: “How so? Does not even man possess a species of creating power? And do you not suppose, in your inert matter, that very property which others attribute, with more reason it

appears to me, to some superior and unknown existence?"

Leontium: "By no means. No existence, that we know of, possesses creating power, in the sense you suppose. Neither the existence we call a man, nor any other of the existences comprised under the generic names of matter, physical world, nature, &c., possesses the power of calling into being its own constituent elements, nor the constituent elements of any other substance. It can change one substance into another substance, by altering the position of its particles, or intermingling them with others: but it cannot call into being, any more than it can annihilate, those particles themselves. The hand of man causes to approach particles of earth and of water, and, by their approximation produces clay; to which clay it gives a regular form, and, by the application of fire, produces the vessel we call a vase. You may say that the hand of man creates the vase, but it does not create the earth, or the water, or the fire; neither has the admixture of these substances added to, or subtracted from, the sum of their elementary atoms. Observe, therefore, there is no analogy between the power inherent in matter, of changing its appearance and qualities, by a simple change in the position of its particles, and that which you attribute to some unseen existence, who by a simple volition, should have called into being matter itself, with all its wonderful properties. An existence possessing such a power I have never seen; and though this says nothing against the possibility of such an existence, it says every thing against *my belief* in it. And farther, the power which you attribute to this existence — that of willing every thing out of nothing, — being, not only what I have never seen, but that of which I cannot with any distinctness conceive — it must appear to me the greatest of all improbabilities."

"Our young friend," observed Metrodorus, "lately made use of an expression, the error involved in which, seems to be at the root of his difficulty. In speaking of matter," he continued, turning to Theon, "you employed the epithet inert. What is your meaning? And what matter do you here designate?"

Theon: "All matter surely is, in itself, inert."

"All matter surely is, in itself, as it is," said Metrodorus with a smile; "and that, I should say, is living and active. Again, what is matter?"

"All that is evident to our senses," replied Theon, "and which stands opposed to mind."

Leontium: "All matter then is inert which is devoid of mind. "What then do you understand by mind?"

"I conceive some error in my definition," said Theon, smiling. "Should I say — *thought* — you would ask if every existence devoid of thought was inert, or if every existence, possessing life, possessed thought."

Leontium: "I should so have asked. Mind or thought I consider a quality of that matter constituting the existence we call a man, which quality we find in a varying degree in other

existences; many, perhaps all animals, possessing it. Life is another quality, or combination of qualities, of matter, inherent in — we know not how many existences. We find it in vegetables; we might perceive it even in stones, could we watch their formation, growth, and decay. We may call that active principle, pervading the elements of all things, which approaches and separates the component particles of the ever-changing, and yet ever-enduring world — life. Until you discover some substance, which undergoes no change, you cannot speak of inert matter: it can only be so, at least, relatively, — that is, as compared with other substances.”

Theon: “The classing of thought and life among the qualities of matter is new to me.”

Leontium: “What is in a substance cannot be separate from it. And is not all matter a compound of qualities? Hardness, extension, form, color, motion, rest — take away all these, and where is matter? To conceive of mind independent of matter, is as if we should conceive of color independent of a substance colored: What is form, if not a body of a particular shape? What is thought, if not something which thinks? Destroy the substance, and you destroy its properties; and so equally — destroy the properties, and you destroy the substance. To suppose the possibility of retaining the one, without the other, is an evident absurdity.”

Theon: “The error of conceiving a quality in the abstract often offended me in the Lyceum,” returned the youth, “but I never considered the error as extending to mind and life, any more than to vice and virtue.”

“You stopped short with many others,” said Leontium. “It is indeed surprising how many acute minds will apply a logical train of reasoning in one case, and invert the process in another exactly similar.”

[Jefferson to John Adams, August 15, 1820: \(Full version at Founders.gov\)](#)

.... But enough of criticism: let me turn to your puzzling letter of May 12. on matter, spirit, motion etc. It's crowd of scepticisms kept me from sleep. I read it, and laid it down: read it, and laid it down, again and again: and to give rest to my mind, I was obliged to recur ultimately to my habitual anodyne, 'I feel: therefore I exist.' I feel bodies which are not myself: there are other existencies then. I call them *matter*. I feel them changing place. This gives me motion. Where there is an absence of matter, I call it *void*, or *nothing*, or *immaterial space*. On the basis of sensation, of matter and motion, we may erect the fabric of all the certainties we can have or need.

I can conceive *thought* to be an action of a particular organisation of matter, formed for that purpose by it's creator, as well as that *attraction* in an action of matter, or *magnetism* of loadstone. When he who denies to the Creator the power of endowing matter with the mode of action called *thinking* shall shew how he could endow the Sun with the mode of action called *attraction*, which reins the planets in the tract of their orbits, or how an absence of matter can

have a will, and, by that will, put matter into motion, then the materialist may be lawfully required to explain the process by which matter exercises the faculty of thinking. When once we quit the basis of sensation, all is in the wind. **To talk of immaterial existences is to talk of nothings. To say that the human soul, angels, god, are immaterial, is to say they are nothings, or that there is no god, no angels, no soul. I cannot reason otherwise:** but I believe I am supported in my creed of materialism by Locke, Tracy, and Stewart.

At what age of the Christian church this heresy of *immaterialism*, this masked atheism, crept in, I do not know. But a heresy it certainly is. Jesus taught nothing of it. He told us indeed that 'God is a spirit,' but he has not defined what a spirit is, nor said that it is not matter. And the ancient fathers generally, if not universally, held it to be matter: light and thin indeed, an etherial gas; but still matter. Origen says 'Deus reapse corporalis est; sed graviorum tantum corporum ratione, incorporeus.' Tertullian 'quid enim deus nisi corpus?' and again 'quis negabit deum esse corpus? Etsi deus spiritus, spiritus etiam corpus est, sui generis, in sua effigie.' St. Justin Martyr '{to Theion phamen einai asomaton oyk oti asomaton—epeide de to me krateisthai ypo tinos, toy krateisthai timioteron esti, dia toyto kaloymen ayton asomaton.}' And St. Macarius, speaking of angels says 'quamvis enim subtilia sint, tamen in substantia, forma et figura, secundum tenuitatem naturae eorum, corpora sunt tenuia.' And St. Austin, St. Basil, Lactantius, Tatian, Athenagoras and others, with whose writings I pretend not a familiarity, are said by those who are, to deliver the same doctrine. Turn to your Ocellus d'Argens 97. 105. and to his Timaeus 17. for these quotations. In England these Immaterialists might have been burnt until the 29. Car. 2. when the writ de haeretico comburendo was abolished: and here until the revolution, that statute not having extended to us. All heresies being now done away with us, these schismatists are merely atheists, differing from the material Atheist only in their belief that 'nothing made something,' and from the material deist who believes that matter alone can operate on matter.

Rejecting all organs of information therefore but my senses, I rid myself of the Pyrrhonisms with which an indulgence in speculations hyperphysical and antiphysical so uselessly occupy and disquiet the mind. A single sense may indeed be sometimes deceived, but rarely: and never all our senses together, with their faculty of reasoning. They evidence realities; and there are enough of these for all the purposes of life, without plunging into the fathomless abyss of dreams and phantasms. **I am satisfied, and sufficiently occupied with the things which are, without tormenting or troubling myself about those which may indeed be, but of which I have no evidence.** I am sure that I really know many, many, things, and none more surely than that I love you with all my heart, and pray for the continuance of your life until you shall be tired of it yourself.

Post by "Cassius" of August 30, 2020 at 9:01 PM

Episode 34 of the Lucretius Today Podcast is now available. In this episode, which begins around line 865 of Book Two of the Latin text, we discuss the Epicurean view that the elemental particles cannot possess a faculty of sensation within themselves. As always, leave your comments or questions below or at the ongoing thread here.

<https://www.spreaker.com/episode/40596909>

Post by “timrobbe” of September 1, 2020 at 10:34 AM

Nice episode. In the end you speak on eternity and therefor an almost certainty extraterrestrial life exists (although we will almost certainly never know it). I think this is true. I think it was Bernard Shaw who stated that given enough time, a monkey would type a copy of Shakespearean works. Eternity would certainly be enough time.

I understand Epicurus deduced God(s) must exist because atoms and void are both eternal and limitless (leading to PD 1). This however contradicts the notion that we have only one life. Given that atoms and the void (and the swerve) are eternal and limitless, it is an almost certainty that after death our atoms once again will eventually form out bodies and minds again. I mean this as a materialistic reality, not an 'afterlife' as in religious doctrine. Woudln't it be, given eternity, like aforementioned monkey eventually typing out an exact copy of a Shakespearean work? And what would this deduction mean for the notion to live your life because you only have one life to live?

Post by “Cassius” of September 1, 2020 at 11:00 AM

Great topics to discuss Tim! I bet [Don](#) would agree with me that this is similar to what we're currently discussing here: [Stoic Objections to Epicurean Doctrine on Infinity of The Universe](#)

Here is the way I would begin to unwind your statement:

Quote from [timrobbe](#)

I think it was Bernard Shaw who stated that given enough time, a monkey would type a copy of Shakespearean works. Eternity would certainly be enough time.

This is almost exactly what Don and I are discussing, and my view is that Epicurus would NOT take this position. Yes over an eternity of time and an infinity of space and innumerable number of things are going to happen, but at the same time Epicurus was very focused on limits and bounds and that "everything" is not possible given simply time and space. That's a very important issue to discuss and I hope others will chime in but for the moment I just want to raise it.

[Quote from timrobbe](#)

I understand Epicurus deduced God(s) must exist because atoms and void are both eternal and limitless (leading to PD 1).

No, I do not think that Epicurus deduced that gods must exist because atoms and void are both eternal and limitless -- at least, that is only a relatively small part of the analysis. Important, yes, because it is important to everything, but as to the existence of "Gods" we have a couple of very specific lines of reasoning that are basically along the lines of (1) anticipations, as explained by Velleius in Cicero's "On the Nature of the Gods" and (2) images of the gods, which is referenced in Lucretius. Again here I would refer you to the much longer discussion of this in DeWitt's book. Do you have a copy of that? If not, let me know. But I think the main point is that there is a lot more to the "god" story than the eternal/limitless nature of the universe. I don't think there is anything in Epicurean theory that requires that gods exist purely because the universe is infinite and eternal.

[Quote from timrobbe](#)

Given that atoms and the void (and the swerve) are eternal and limitless, it is an almost certainty that after death our atoms once again will eventually form out bodies and minds again.

This argument appears in Lucretius but not in the form of admitting that it is true, but by saying that EVEN IF it were true, it would make no difference to us, since we can't remember past lives. That's not the same as saying that it is an absolute certainty, but I can see how someone could argue that, especially from a Nietzschean "eternal recurrence" perspective.

OK back to Lucretius - this occurs near the end of book three -- here, the HUMPHRIES version:

Death Is nothing to us, has no relevance

To our condition, seeing that the mind
Is mortal. Just as, long ago, we felt
Not the least touch of trouble when the wars
Were raging all around the shaken earth
And from all sides the Carthaginian hordes
Poured forth to battle, and no man ever knew
Whose subject he would be in life or death,
Which doom, by land or sea, would strike him down,
So, when we cease to be, and body and soul,
Which joined to make us one, have gone their ways,
Their separate ways, nothing at all can shake
Our feelings, not if earth were mixed with sea
Or sea with sky. Perhaps the mind or spirit,
After its separation from our body,
Has some sensation; what is that to us?
Nothing at all, for what we knew of being,
Essence, identity, oneness, was derived
From body's union with spirit, so, if time,
After our death, should some day reunite
All of our present particles, bring them back
To where they now reside, give us once more
The light of life, this still would have no meaning
For us, with our self-recollection gone.
As we are now, we lack all memory

Of what we were before, suffer no wound
From those old days. Look back on all that space
Of time's immensity, consider well
What infinite combinations there have been
In matter's ways and groupings. How easy, then,
For human beings to believe we are
Compounded of the very selfsame notes,
Arranged exactly in the selfsame ways
As once we were, our long-ago, our now
Being identical. And yet we keep
No memory of that once-upon-a-time,
Nor can we call it back; somewhere between
A break occurred, and all our atoms went
Wandering here and there and far away
From our sensations. If there lies ahead
Tough luck for any man, he must be there,
Himself, to feel its evil, but since death
Removes this chance, and by injunction stops
All rioting of woes against our state,
We may be reassured that in our death
We have no cause for fear, we cannot be
Wretched in nonexistence. Death alone
Has immortality, and takes away
Our mortal life. It does not matter a bit
If we once lived before.

Post by “Don” of September 1, 2020 at 11:07 AM

I completely concur with [Cassius](#) . Even if atoms arranged themselves in an identical *pattern* to us, it wouldn't be us. Death is the dissolution of this particular "incarnation" of consciousness. Death is a break. *I* will not exist after I die. There will be no sensation, and so death will be nothing to me. If an arrangement of atoms assembles into this pattern again, that's not *me.*

Monkeys may type Shakespeare, but they're not Shakespeare.

The pattern may copy me, but that's not me.

Post by “timrobbe” of September 1, 2020 at 11:14 AM

[Cassius](#) [Don](#) Thanks for the replies. I see what you mean reading the Lucretius part. And indeed the difference between Shakespeare and a monkey typing Shakespeare.

[Cassius](#) I do have a copy of DeWitt. Do you know by heart where in his book he writes on the subject?

Post by “Cassius” of September 1, 2020 at 1:48 PM

Tim -- I presume you're talking about the nature of the gods -- check out the opening of chapter 13 - the true piety.

As to the monkeys and Shakespeare, I don't mean to dismiss that question. I am inclined to think that the answer is "no" as I indicated but it would be good to articulate more clearly why not (or why he would) agree that "random" events (which is pretty much the meaning of monkeys on a typewriter) could or could not produce Shakespeare.

It immediately comes to mind that of course we generally think that natural events that are to a point "random" produce life, and life eventually produced humans, and humans eventually produced Shakespeare, and he eventually produced his body of work.

But I don't think that's really the fair way of analyzing the question. The question starts with a typewriter, and a monkey, so that kind of sets some parameters. Would ANY amount of time be sufficient for a monkey sitting in front of a typewriter to produce the work of Shakespeare? No doubt we could talk about the analogy from many different angles but the heart of the question seems to me to be some defined force of randomness eventually producing a highly organized result which would seem counterintuitive given the starting point.

Any care to argue that such a result is "inevitable" given enough time? There may well be better ways to articulate the question but the I think there are useful lessons to be drawn from analyzing it and considering both the limits of the hypothetical results and how we reach the idea that there are in fact limits (if we do).

Post by “Don” of September 1, 2020 at 2:18 PM

Quote

The question starts with a typewriter, and a monkey,

This made me smile. 😊 One usually doesn't see that combination of words in casual conversation.

Quote

No doubt we could talk about the analogy from many different angles but the heart of the question seems to me to be some defined force of randomness eventually producing a highly organized result which would seem counterintuitive given the starting point.

I'm sure a mathematician could calculate the probability. How many letters in all of Shakespeare's works, the probability of getting each letter at random, etc. The odds would be astronomical! But given an infinite (literal) amount of time, it could happen.

Post by “timrobbe” of September 1, 2020 at 5:48 PM

I was just watching some video's in which scientists explain that the odds of monkeys typing Shakespeare are indeed astronomical. Interestingly, they also explain this doesn't mean

seemingly random events cant lead to complex results. If there would be forces at work penalizing monkeys for not typing correctly and rewarding them for typing correctly, this would greatly increase the odds. This ofcourse relates to evolution theory. What do you think could be the importance of this for EP, if any?

Post by “Godfrey” of September 1, 2020 at 7:25 PM

[Quote from timrobbe](#)

Interestingly, they also explain this doesnt mean seemingly random events cant lead to complex results. If there would be forces at work penalizing monkeys for not typing correctly and rewarding them for typing correctly, this would greatly increase the odds.

I think that this is the key point. Without the laws of physics (represented by forces penalizing the monkeys), the odds of evolution and the cosmos happening would be pretty astronomical. Further, as atoms combine, the compound bodies get emergent properties which increase the odds of something coherent happening... and so on.

Post by “Cassius” of September 1, 2020 at 9:00 PM

Are we inferring that the monkey will learn or reproduce and generate more intelligent offspring? Or is the hypothetical that the same monkey keeps typing on the same typewriter for an infinite time? Does randomness expanded to an ever greater power ever produce something highly complex without there being something in the nature of the process under consideration that creates a tendency toward "organization"?

At this point I am not advocating a position just trying to think it through.

At least in my own mind I relate these questions back to the presumption that the Epicureans thought the universe eternally old into the past as well. Regardless of whether we think that violates modern physics, toward what conclusions would that presumption have led them? That life in the universe has existed eternally too? I personally think that must have been a conclusion of theirs but anyone care to comment?

I would think the common thread in the questions is whether there must be some kind of "disposition" to lead to the formation of life, or to monkeys typing Shakespeare, in order for

that to happen.

Must there be something in the nature of certain elements that tends to produce organization?

Post by “Don” of September 1, 2020 at 9:10 PM

Of course there's [a Wikipedia article on the infinite monkey problem.](#)

Post by “timrobbe” of September 2, 2020 at 3:10 AM

[Quote from Cassius](#)

Must there be something in the nature of certain elements that tends to produce organization?

I think so. As to my understanding, EP holds that different atoms have different properties. I do not know whether modern physics concurs. I do know that theories on complex adaptive systems explain emergent properties of these systems by looking at the autonomous parts of the system using simple rules when reacting on each other. So the nature of the autonomous parts, the rules they follow within the system when reacting on other parts, is essential for complex systems to exist and evolve. There is a great book on the subject by Thomas Schelling, “micro motives and macro behaviour”. I see some overlap between the theory and EP.

Post by “Cassius” of September 2, 2020 at 9:07 AM

Don thanks for the link to the wikipedia article. I woke up thinking about the monkeys and the aspect that struck me is that Epicurus might say that reasoning by analogy would include the fact that we can observe monkeys here in earth playing with typewriters and we observe that they are not in fact apt to randomly press all keys. The wikipedia article observed something similar. Changing the paradigm to reference some kind of random letter generator changes the hypothetical. I am tempted to say that Epicurus would say that even in an eternity of time a

monkey could never be expected to produce even a single work of Shakespeare, and that it is always essential to be very clear as to ones statements so as to avoid overbroad and incorrect implications of infinity and eternity. Even in an infinite and eternal universe there are limits on what we should expect to happen, and *all things* are not possible.

I find this interesting because I don't think it is a small point - I think it's an important one.

Post by “Don” of September 2, 2020 at 9:58 AM

My sense is that this "monkey theory" in all its forms is an illustration of "just because something can be shown to have a mathematical probability of happening doesn't mean it has a corresponding possibility in reality." Those monkey probabilities are so infinitesimal as to be practically impossible in our cosmos. And whether you accept an infinite universe or a "practically infinite from a human perspective" universe, the chances of monkeys typing Shakespeare is not going to happen by random chance. That's born out by natural selection and evolution. Evolution is not random. Mutations are random but nature "selects" out those that provide an advantage.

Same for the monkeys. If something selects for keeping two and three "correct" letters together from Hamlet and builds in them, maybe it'll happen.

And there's little reason to think there are monkeys identical to our monkeys in an alternate cosmos.

Plus, getting all those monkeys in one place and keeping them at their typewriters for infinity is one grant project I doubt would ever be funded.

All this is to say that micro-applications of this randomness cannot be helpful in theory.

But if you want a copy of Shakespeare's works, visit your local library.

Post by “Cassius” of September 2, 2020 at 10:31 AM

[Quote from Don](#)

"just because something can be shown to have a mathematical probability of happening doesn't mean it has a corresponding possibility in reality."

Yes but I wonder if that is specific enough. Like in the monkey analogy people seem to default to a position that "anything is possible but the possibility may be infinitesimally small." Well, but that's the question, isn't it? is there really ANY possibility of certain things happening, and can't we be pretty confident in saying that some things can never happen, and shouldn't we try to be rigorous in separating the two? If we think about the monkeys that exist in reality, even given an infinite time I would not expect them by nature to be interested in hitting all the keys randomly and persistently enough to come up with a sonnet.

The "anything is possible" cliché is a dangerous one, I'm thinking.

Post by “Don” of September 2, 2020 at 11:06 AM

[Quote from Cassius](#)

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The "anything is possible" cliché is a dangerous one, I'm thinking.

It sounds like you're advocating the concept of Epicurean limits when talking about probabilities and possibilities. Is this echoing Epicurus's objection to geometry? Geometry can talk about ideal situations and shape but a "perfect" square doesn't really exist. We can use geometry as a tool but shouldn't confuse it for reality.

Post by “Cassius” of September 2, 2020 at 11:58 AM

Yes I think that is an EXCELLENT analogy. I'm trying to generalize the observation so as to get the most meaning out of it possible. Maybe every math / geometry class from grade school on up ought to start on day one with.

"No matter how enthralled you get with this subject, remember: MATH CAN HELP US DESCRIBE REALITY, BUT MATH ITSELF IS NOT REALITY!"

(probably a better way to phrase that but you get the idea)