

Episode Sixty-Seven - Did The Gods Wake Up One Day To Create The Universe?

Post by "Cassius" of April 11, 2021 at 5:35 PM

Welcome to Episode Sixty-Seven 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. 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.

For anyone who is not familiar with our podcast, please check back to [Episode One](#) for a discussion of our goals and our ground rules. If you have any question about that, please be sure to contact us at EpicureanFriends.com for more information.

In this Episode 67 we continue our discussion of Book 5 with Charles reading today's text, starting with approximately Latin Line 146:

Munro Notes

146-194 : the gods dwell not in the world, but apart in seats fine as themselves their nature is not sensible to our bodily sense, but only to the finer sense of the mind: again to say that this world was created by the gods and will be eternal, and that it is impiety to gainsay this, is sheer folly: what could induce them to take such trouble? or what harm were it to us never to have been born? whence did the gods get the notion of man, so as to know how to make him? nay, this world and all in it was gradually formed by mere natural causes, as explained already. Munro Comment: "That Epic. and Lucr. believed in these gods is certain, as there observed : no less certain are the difficulties in reconciling that belief with their general system."

195-234: nay, if I did not know the first-beginnings of things, the imperfection of this world would prove to me the gods did not make it for man's use: see after all how small a part of the whole earth he can bring under tillage, and that with the sweat of his brow; and then his labour is often thrown away: look at all the miseries he suffers, dangers by sea and land, diseases, untimely death; compare the helpless baby with the young of other animals.

Browne 1743

Nor are you to believe that the sacred mansions of the gods are placed in any parts of this world of ours, for the nature of the gods is so subtle, and at so remote a distance from our

senses, that it can scarce be apprehended by the mind. Since therefore it cannot be touched or felt by our hands, it can touch nothing that it is the object of our senses, for nothing has a power to touch that is incapable of being touched itself. For this reason the abodes of the gods must be far different from ours; they must be subtle, and answerable to their own nature. But the truth of this I shall more fully prove in another place. And then, to say that the gods designed this noble fabric of the world for the sake of man, and therefore we are to speak honorably of this excellent work, and conceive it to be eternal, and shall remain forever; and that it is impious to prove that this frame of the world, contrived by the gods to continue forever for the use of man, shall fall to ruin; or to offer to disturb its duration by words or arguments, and so overturn things from their very foundations - to pretend and enlarge upon this, and more such stuff, my Memmius, is all madness; for what advantage can any acknowledgements of ours bestow upon divinities happy and immortal, that they should give themselves any trouble upon our account?

Or what new pleasure could prevail upon the gods, who lived at rest for so many ages before, to desire to change their former state of ease and tranquility? Those generally rejoice in a new condition who have been unhappy in the last, but the man who has felt no misfortunes in his former state, but has lived pleasantly and undisturbed, what could excite the love of novelty in such a one as this? Was the life of the gods spent in darkness and melancholy till the structure of the World shone out and cleared their spirits? Or what evil had we suffered if we had never been created? Indeed, when we are once born, we should strive (whoever he be) to preserve our life, so long as we find an engaging pleasure in our being, but he who never tasted the love of life, nor was enrolled among the living, what harm could he complain of if he had never been? Besides, what model had the gods to work by, when they set about the creation of the world? From whence had they any previous knowledge of man to inform them, and give their mind an idea of what they proposed to make? How could they become acquainted with the powers and force of the atoms, and with what they were able to effect by the changes of their site and order, if Nature herself had not afforded them first a specimen of creation? For the seeds of bodies were from all eternity so variously agitated by blows from without, and driven so about by their own weight, and tried every way to unite, and attempted all sorts of motion that might end at last in the formation of things, that no wonder they at last fell into such dispositions, and so decent order, as to produce the universe, and continually preserve and renew it.

For were I wholly ignorant of the origin of things, yet I could prove this truth from the heavens, and by many other reasons, that the frame of the world was by no means raised by the gods for the use of man, so faulty it is, and contrived so ill. And first, the Earth, covered over by the violent whirl of the heavens, huge mountains and woods, the harbor of wild beasts, and rocks and vast lakes, and the sea, which widely separates the distant shores, take up a great part of it; and then the torrid heat, and continual cold, rob mankind almost of two parts, and make them uninhabitable. The fruitful fields that remain, nature of herself would spread over with thorns if the labor of man did not prevent it; if he did not, to preserve life, force the earth by

constant toil with strong tools, and cut it through with the plough; if we did not turn up the fruitful clods with the crooked share, and compel the soil to exert its strength, of its own accord it would produce nothing. And yet, when the fruits are raised with great labor, when they look green upon the ground, and all things flourish; either the sun's rays burn everything up with their fierce heat, or sudden showers, or piercing frosts, destroy our hopes; of the blasts of wind, with terrible hurricanes, blow them away. And then, why does Nature nourish and increase the dreadful race of wild beasts, by sea and land, the professed enemies to humankind? Why do the seasons of the year bring disease with them? Why does untimely death wander every way abroad?

Besides, a child, like a shipwrecked mariner on shore by the cruel tide, lies naked upon the ground; a wretched infant, destitute of every help of life, as soon as Nature, by the mother's pangs, has thrown him from the womb into light; and then he fills the air with mournful cries, as he has reason to do, since in the course of life he has such a series of evils to pass through. But cattle of every kind, and herds, and wild beasts, grow up with ease. They have no need of rattles to divert them; they have no occasion for the kind nurse, by her fond and broken words, to keep them in humor; they require no difference of dress for the several seasons of the year; they have no need of arms, nor high walls, to secure their property; for the Earth, with curious contrivance, of herself produces everything in abundance for the whole variety of creatures to feed and support them.

Munro 1886

This too you may not possibly believe, that the holy seats of the gods exist in any parts of the world: the fine nature of the gods far withdrawn from our senses is hardly seen by the thought of the mind; and since it has ever eluded the touch and stroke of the hands, it must touch nothing which is tangible for us; for that cannot touch which does not admit of being touched in turn. And therefore their seats as well must be unlike our seats, fine, even as their bodies are fine. All which I will prove to you later in copious argument. To say again that for the sake of men they have willed to set in order the glorious nature of the world and therefore it is meet to praise the work of the gods, calling as it does for all praise, and to believe that it will be eternal and immortal, and that it is an unholy thing ever to shake by any force from its fixed seats that which by the forethought of the gods in ancient days has been established on everlasting foundations for mankind, or to assail it by speech and utterly overturn it from top to bottom; and to invent and add other figments of the kind, Memmius, is all sheer folly. For what advantage can our gratitude bestow on immortal and blessed beings, that for our sakes they should take in hand to administer aught?

And what novel incident should have induced them hitherto at rest so long after to desire to change their former life? For it seems natural he should rejoice in a new state of things, whom old things annoy; but for him whom no ill has befallen in times gone by when he passed a pleasant existence, what could have kindled in such a one a love of change? Did life lie groveling in darkness and sorrow, until the first dawn of the birth time of things? Or what evil

had it been for us never to have been born? Whoever has been born must want to continue in life, so long as fond pleasure shall keep him; but for him who has never tasted the love, never been on the lists of life, what harm not to have been born? Whence again was first implanted in the gods a pattern for begetting things in general as well as the preconception of what men are, so that they knew and saw in mind what they wanted to make? And in what way was the power of first-beginnings ever ascertained, and what they could effect by a change in their mutual arrangements, unless nature herself gave the model for making things? For in such wise the first-beginnings of things many in number in many ways impelled by blows for infinite ages back and kept in motion by their own weights have been wont to be carried along and to unite in all manner of ways and thoroughly test every kind of production possible by their mutual combinations; that it is not strange if they have also fallen into arrangements and have come into courses like to those out of which this sum of things is now carried on by constant renewing.

But if I did not know what first-beginnings of things are, yet this judging by the very arrangements of heaven I would venture to affirm, and led by many other facts to maintain, that the nature of things has by no means been made for us by divine power: so great are the defects with which it is encumbered. In the first place of all, the space which the vast reach of heaven covers, a portion greedy mountains and forests of wild beasts have occupied, rocks and wasteful pools take up and the sea which holds wide apart the coasts of different lands. Next, of nearly two thirds burning heat and the constant fall of frost rob mortals. What is left for tillage, even that nature by its power would overrun with thorns, unless the force of man made head against it, accustomed for the sake of a livelihood to groan beneath the strong hoe and to cut through the earth by pressing down the plow. Unless by turning up the fruitful clods with the share and laboring the soil of the earth we stimulate things to rise, they could not spontaneously come up into the clear air; and even then sometimes when things earned with great toil now put forth their leaves over the lands and are all in blossom, either the ethereal sun bums them up with excessive heats or sudden rains and cold frosts cut them off, and the blasts of the winds waste them by a furious hurricane. Again, why does nature give food and increase to the frightful race of wild beasts dangerous to mankind both by sea and land? Why do the seasons of the year bring diseases in their train? Why stalks abroad untimely death?

Then, too the baby, like to a sailor cast away by the cruel waves, lies naked on the ground, speechless, wanting every furtherance of life, soon as nature by the throes of birth has shed him forth from his mother's womb into the borders of light: he fills the room with a rueful wading, as well he may whose destiny it is to go through in life so many ills. But the different flocks herds and wild beasts grow up; they want no rattles; to none of them need be addressed the fond broken accents of the fostering nurse; they ask not different dresses according to the season; no nor do they want arms or lofty walls, whereby to protect their own, the earth itself and nature manifold in her works producing in plenty all things for all.

Bailey 1921

This, too, it cannot be that you should believe, that there are holy abodes of the gods in any parts of the world, For the fine nature of the gods, far sundered from our senses, is scarcely seen by the understanding of the mind; and since it lies far beneath all touch or blow from our hands, it cannot indeed touch anything which can be touched by us. For nothing can touch which may not itself be touched. Therefore even their abodes too must needs be unlike our abodes, fine even as are their bodies; all which I will hereafter prove to you with plenteous argument. Further, to say that for man's sake they were willing to fashion the glorious nature of the world, and for that cause 'tis fitting to praise the work of the gods, which is worthy to be praised, and to believe that it will be everlasting and immortal, and that it is sin ever to stir from its seats by any force what was established for the races of men for all time by the ancient wisdom of the gods, or to assail it with argument, and to overthrow it from top to bottom; to imagine and to add all else of this sort, Memmius, is but foolishness. For what profit could our thanks bestow on the immortal and blessed ones, that they should essay to do anything for our sakes? Or what new thing could have enticed them so long after, when they were aforetime at rest, to desire to change their former life?

For it is clear that he must take joy in new things, to whom the old are painful; but for him, whom no sorrow has befallen in the time gone by, when he led a life of happiness, for such an one what could have kindled a passion for new things? Or what ill had it been to us never to have been made? Did our life, forsooth, lie wallowing in darkness and grief, until the first creation of things dawned upon us? For whosoever has been born must needs wish to abide in life, so long as enticing pleasure shall hold him. But for him, who has never tasted the love of life, and was never in the ranks of the living, what harm is it never to have been made? Further, how was there first implanted in the gods a pattern for the begetting of things, yea, and the concept of man, so that they might know and see in their mind what they wished to do, or in what way was the power of the first-beginnings ever learnt, or what they could do when they shifted their order one with the other, if nature did not herself give a model of creation? For so many first-beginnings of things in many ways, driven on by blows from time everlasting until now, and moved by their own weight, have been wont to be borne on, and to unite in every way, and essay everything that they might create, meeting one with another, that it is no wonder if they have fallen also into such arrangements, and have passed into such movements, as those whereby this present sum of things is carried on, ever and again replenished.

But even if I knew not what are the first-beginnings of things, yet this I would dare to affirm from the very workings of heaven, and to prove from many other things as well, that by no means has the nature of things been fashioned for us by divine grace: so great are the flaws with which it stands beset. First, of all that the huge expanse of heaven covers, half thereof mountains and forests of wild beasts have greedily seized; rocks possess it, and waste pools and the sea, which holds far apart the shores of the lands. Besides, two-thirds almost burning heat and the ceaseless fall of frost steal from mortals. Of all the field-land that remains, yet nature would by her force cover it up with thorns, were it not that the force of man resisted her, ever wont for his livelihood to groan over the strong mattock and to furrow the earth with the

deep-pressed plough. But that by turning the fertile clods with the share, and subduing the soil of the earth we summon them to birth, of their own accord the crops could not spring up into the liquid air; and even now sometimes, when won by great toil things grow leafy throughout the land, and are all in flower, either the sun in heaven burns them with too much heat, or sudden rains destroy them and chill frosts, and the blasts of the winds harry them with headstrong hurricane. Moreover, why does nature foster and increase the awesome tribe of wild beasts to do harm to the race of man by land and sea? Why do the seasons of the year bring maladies? Why does death stalk abroad before her time?

Then again, the child, like a sailor tossed ashore by the cruel waves, lies naked on the ground, dumb, lacking all help for life, when first nature has cast him forth by travail from his mother's womb into the coasts of light, and he fills the place with woful wailing, as is but right for one for whom it remains in life to pass through so much trouble. But the diverse flocks and herds grow up and the wild beasts, nor have they need of rattles, nor must there be spoken to any of them the fond and broken prattle of the fostering nurse, nor do they seek diverse garments to suit the season of heaven, nay, and they have no need of weapons or lofty walls, whereby to protect their own, since for all of them the earth itself brings forth all things bounteously, and nature, the quaint artificer of things.

Post by "Cassius" of April 19, 2021 at 10:34 AM

I am editing this podcast now and want to note that when it is released around the 30 minute mark we start talking about the issue of the gods needing a model. We made the point that this is a very deep subject and I think one thing we probably did not cover adequately is the possibility that this "model" language might have been a direct reference to Plato's ideal forms, and perhaps he's just referring to models as a way of putting the Platonists into an illogical regression of asking "which came first, the gods or the models"?

Probably that's not a good way of expressing the issue, but listen for this part of the podcast and see what you think about how the model discussion may relate to Plato's forms.

After thinking about the question this way I wonder if the entire basis of the passage in Lucretius was to attack the logic behind Plato's forms.

Post by "Cassius" of April 19, 2021 at 11:19 AM

Episode 67 of the Lucretius Today Podcast is now available. In today's episode, we continue into book five and discuss the question of whether the gods woke up one day and decided to create the universe. As always let us know if you have any questions or comments

<https://www.spreaker.com/episode/44392516>

Post by “Cassius” of April 19, 2021 at 1:17 PM

Also in regard to this episode, it has me wanting to go back and review Velleius as to the images going TOWARDS the gods. I have always thought of that just in terms of atoms flowing toward them and their bodies being assembled from atoms like a waterfall. But images are "organized" and not the same as random atoms flowing toward them. Is there an implication if Velleius is talking about images rather than simple particles?

Post by “Cassius” of April 19, 2021 at 9:33 PM

Ok so this is what Velleius says:

Quote

“These discoveries of Epicurus are so acute in themselves and so subtly expressed that not everyone would be capable of appreciating them. Still I may rely on your intelligence, and make my exposition briefer than the subject demands. Epicurus then, as he not merely discerns abstruse and recondite things with his mind's eye, but handles them as tangible realities, teaches that the substance and nature of the gods is such that, in the first place, it is perceived not by the senses but by the mind, and not materially or individually, like the solid objects which Epicurus in virtue of their substantiality entitles *steremnia*; but by our perceiving **images** owing to their similarity and succession, because an **endless train of precisely similar images** arises from the innumerable atoms and streams towards the gods, our mind with the keenest feelings of pleasure fixes its gaze on these images, and so attains an understanding of the nature of a being both blessed and eternal.

So this is indeed something i had missed previously -- i was thinking that it was just a stream of elemental particles that kept the gods alive in their quasi-bodies, but it appears that the word

<https://www.epicureanfriends.com/thread/1948-episode-sixty-seven-did-the-gods-wake-up-one-day-to-create-the-universe/>

used is **images**, not particles, and I can't help but think that that makes a difference. What the difference might be, I don't really know, but there has to be some significance to the things streaming toward the gods being "images" (which I take to be particles organized in shape deriving from their source) rather than just random elemental particles.

Post by “Don” of April 19, 2021 at 9:57 PM

I believe this is where Sedley and those of the "idealist" persuasion pertaining to the [Epicurean gods](#) get their justification. I'm inclined to agree with them.

My understanding of this position is: We conceive of blessed and incorruptible beings as exemplars of "perfect" life forms. These ideas/images/concepts are what "sustain" the gods. Ergo, the gods have no existence apart from the images we assign to them. The gods are literally our attempt to imagine the highest most pleasurable existence.

Now, that being said, I'm still not clear how imagination works in an Epicurean context. Do we combine images and concepts that are extant in the world? If so, are the gods simply a combination of humans expanded to giant size and infused with our idea of a perfectly pleasurable existence?

The right answer is not easy to find.

Post by “Cassius” of April 20, 2021 at 2:32 AM

[Quote from Don](#)

The right answer is not easy to find.

It sure isn't!!

[Quote from Don](#)

I'm still not clear how imagination works in an Epicurean context. Do we combine images and concepts that are extant in the world?

I see why you would say that because I recall especially Elayne making remarks in podcasts from book four connecting "images" and "imagination." I would say that she was doing so, as you say, considering the whole idea of images to be a sort of allegory, and not to be taken literally. From her perspective she ruled out the use of the mind as a "suprasensory" organism (I think that's the term DeWitt applied to it) so she was making sense of it as best she could as something she maintains cannot be taken literally.

I would not take that approach - I think these passages were meant to be taken literally - so I would not at all consider "imagination" as we use that term to be connected to Epicurean "images." Therefore I don't think it is possible to understand the Epicurean context or Lucretius' view of this theory without taking him literally that there are "images" made of particles which our eyes cannot see but which retain - as they travel through space - shape and/or other characteristic information of the thing from which they are emitted.

So if someone wants to think about what WE consider to be "imagination" they would simply be talking about the storage of concepts and/or pictures (again something that Elayne questioned, if I recall) in the mind, and then the mind's manipulation of those memories as part of the thinking process.

If someone wants to think about what Epicurus/Lucretius was talking about, in my opinion I think they have to start with the premise that the main subject indeed involves the flow of elemental particles off of all bodies, how those flows travel through space and interfere with each other, and how the mind as a direct sensory organism receives them from outside the brain and processes them.

This was a point of contention either on or off the air of some of those podcasts from book four. I certainly am not in a position of saying with confidence that I agree with Epicurus and Lucretius that such a mechanism in fact exists, but I am not ready to rule it out as impossible. With more confidence, however, I would say that it's clear to me that Epicurus and Lucretius took this contention seriously, so no matter to what extent we agree or disagree that Epicurus was right about this aspect of his theology, I do believe they intended to be taken literally.

Also - and I am glad you reminded me to say this! - there was a point or two in the podcast where you made the point being made here to the effect that the images traveling through space are the main way that we "know" of the existence of gods. I think that's not the best reading of the Velleius material, and I think DeWitt is correct that Velleius' reference is pretty clearly that anticipations of the gods are engraved on the mind at birth, before any "images" from or to the gods have been transmitted. So at least as for me when I am discussing the theology it's my intent to always state that the texts support **two** potential means of information about the gods: (1) transmission of the images, and (2) the innate etching on the brain which exists at birth but develops naturally as we age.

Getting back specifically to "Do we combine images and concepts that are extant in the world?" I would say that the answer there under the theory would most certainly be yes, but I would connect the "extant in the world" to the eternal universe premise. For that reason there has never been a time when all parts of the universe were not full of images flowing through the air, some of which maintain their original shape/information while others have so interfered with each other, or traveled such distances that they are distorted to the point of losing most or all of their original shapes. I think that seems to be what they are saying, but again I see that process as very distinct from memory - the storing of information data in the mind and the manipulation of that data into new combinations as we process that data. I would see those processes to be so different and distinct as to be pretty much totally disconnected from each other, except to the extent that thoughts are influenced by new images constantly being received, just like our thoughts are affected by the things we see or hear as we are thinking.

Post by "Don" of April 20, 2021 at 7:52 AM

My understanding of the Epicurean mechanism of memory is that memories are not stored in the mind. Our minds are habituated to respond to certain "images" (I'm going to use the Greek eidola) streaming towards us from all over. Certain eidola engrave themselves deeper from more regular or more importance to us. These engraved "channels" allow us to receive those eidola easier, making it easier to let those eidola back into our minds. We perceive this as memory.

That's not how memory works, but we do not in fact "store" memories in our brain by "filing" them in specific neurons the way most people think we do. I know I thought it was something like that until recently.

When we try to remember something, our brains literally reconstruct and refire the neural pathways that led to our experience of that event. When we "see" something "in our mind's eye", the neurons in our visual cortex literally fire as if we're "seeing" that event. If we can't get a song out of our head, neurons responsible for auditory sensations are recreating that sound. You can't point to a brain region and say "My fourth grade concert is stored here." But if you remember it, your brain reconstructs the event from various portions of them brain. I don't know how the mechanism starts, but that's how memories are relived.

And we know smelling something or hearing something can stir a memory. Hmm... Maybe Epicurus was on to something 🤔

Post by "Don" of April 20, 2021 at 8:34 AM

<https://www.epicureanfriends.com/thread/1948-episode-sixty-seven-did-the-gods-wake-up-one-day-to-create-the-universe/>

In fact, that habituation to certain eidola - that engraving of channels - in our minds could very well be what prolepses in fact are. The exposure over and over again to certain eidola is what gives rise to our anticipations.

Post by “Cassius” of April 20, 2021 at 9:03 AM

I don't really disagree with what you've written in those last two posts, but I do think this is an area where we have to keep separate what Epicurus was saying from what "modern science" might say is a different mechanism. I do think that there are references in the text which would justify holding that Epicurus held a conventional view that the mind can store information / pictures and retrieve it at will. There are also clearly references (the ones we are going over now) to the mind being stimulated from the outside by images. At least as to me I do not see these two as being mutually incompatible at all, but I am definitely open and looking for further development of these issues over time. For me the current evidence indicates that both processes exist, and I agree with your comment that "most people" think in those terms, so I think the Epicureans would have too. If Epicurus intended to eject or disprove or invalidate that mode of mental operation, I think he would have been very specific and clear in making that point, so I see the burden of proof on this issue to be with those who would say that Epicurus intended to replace in full conventional views of memory with the "images" mechanism. If anyone has any academic articles on this point I hope they will cite them, but we've only recently over the last couple of months begun to discuss this issue, so there's lots of room for more development.

[Quote from Don](#)

And we know smelling something or hearing something can stir a memory. Hmmmm...
Maybe Epicurus was on to something

And I particularly agree with that, which is why I am not willing to write off as impossible a theory that would be based on the mind (brain, presumably) being able to receive stimulation from outside which is not visible to the eyes, ears, etc. By no means do I think that there is enough evidence to accept Epicurus' images theory at face value, but I do not think it wise to label it as "ridiculous" or "impossible." In that I am referring first to just the possibility of the mind receiving impressions from things around us; the contention that people can receive images from across the reaches of space would require much more evidence to entertain. If I were looking to develop THAT theory, I would start [here](#).

Post by “Don” of April 20, 2021 at 9:46 AM

[Quote from Cassius](#)

. I do think that there are references in the text which would justify holding that Epicurus held a conventional view that the mind can store information / pictures and retrieve it at will.

Can you think of references? Btw that's not confrontational just curious 😊

Post by “Don” of April 20, 2021 at 10:27 AM

[Quote from Cassius](#)

I am not willing to write off as impossible a theory that would be based on the mind (brain, presumably) being able to receive stimulation from outside which is not visible to the eyes, ears, etc.

Well, I'd begin by saying there's all kinds of things that stimulate our minds that are "not visible to the eyes, ears, etc." We can't see sounds. We can't see chemical molecules that we can taste. We can't see speech that implants concepts in our minds that can affect our actions. But these are all physical things in a material universe. That's the import of what Epicurus was expounding. There's no supernatural divine inspiration that affects our minds. It's all physical. That's for me the import of the eidola. At least in some respects.

Post by “Don” of April 20, 2021 at 6:46 PM

A quick note on models around 40:00: A being who's going to build something - a desk, a house, a city, a universe - needs a plan, blueprint, 3-d model, etc. Nature needs no such plan or model.

Post by “Godfrey” of April 20, 2021 at 7:00 PM

<https://www.epicureanfriends.com/thread/1948-episode-sixty-seven-did-the-gods-wake-up-one-day-to-create-the-universe/>

So are nest-building birds or dam-building beavers beings or nature? What are their models?

Post by “Cassius” of April 20, 2021 at 7:31 PM

[Quote from Godfrey](#)

nest-building birds or dam-building beavers beings or nature? What are their models?

Great question, and this is part of why I am in the DeWitt camp on anticipations as "etchings" from birth. I don't think most people have a problem with animals having the ability to pass programming on prior to personal experience, so why should humans not have the same ability.

Or would we maintain that unless beavers and birds saw their parents building dams and nests they wouldn't be doing it themselves? I don't think that's the case, is it?

Post by “Don” of April 20, 2021 at 7:53 PM

[Quote from Godfrey](#)

So are nest-building birds or dam-building beavers beings or nature? What are their models?

Other beavers.

Oh, and other birds.. Or they may fall under Nature due to instinct. I think we're specifically talking about humans and gods.

Post by “Godfrey” of April 20, 2021 at 8:11 PM

Perhaps I'm digressing....

But we do draw conclusions about the unobservable by thinking about the observable 😊

I think we agree that language developed over time and is not inborn but learned, possibly beginning in utero. So there wasn't a model for it. I'm suggesting that it's the same for the birds and the beavers.

This might, however, be a different issue from a specific instance of using a word or designing a building. In both of those cases the model is previous experience as well. So is it really a different issue? 🤔

Post by “Cassius” of April 20, 2021 at 8:21 PM

[Quote from Godfrey](#)

I think we agree that language developed over time and is not inborn but learned, possibly beginning in utero. So there wasn't a model for it. I'm suggesting that it's the same for the birds and the beavers.

If you take a baby beaver away from its parents and all other beavers at birth, and release it into the wild later, having never been near an example of a dam, it will still build dams, won't it?

Post by “Cassius” of April 20, 2021 at 8:29 PM

I just noticed I missed seeing Don's posts 11 and 12 -- I didn't intend to ignore them. I'll add "memory" to the agenda for tonight

Post by “Joshua” of April 20, 2021 at 10:28 PM

In lieu of the ability to perform large-scale multi-generation experiments on these animals and their instincts, one thing we can do is study novel cases where nature herself (metaphorically,

of course) laid out the experiment for us. In the case of birds, the classic example is to study isolated populations on remote islands. It's no accident that Darwin discovered the mechanisms of evolution after studying birds in the Galapagos.

<https://www.sciencemag.org/news/2019/05/e...me%20flightless>.

But possibly this only restates the same question; do island birds stop nesting in trees because they "forgot" the model, or do they start nesting on the ground because they "learned" a new model?

The central problem, as I see it, is that what we observe in individuals seems to argue for some kinds of uncanny innate 'knowledge'-but what we observe across populations seems to indicate the opposite.

And the further problem is that with individuals born in captivity and released into the wild, they don't survive long enough to furnish any useful data. The ideal experiment would be to take a large-ish population of beavers, raise them in captivity for successive generations where dam building is not possible, and then release them as a group into an environment where there are no other beavers to learn from except each other. Then wait for the dams.

Post by “Don” of April 20, 2021 at 11:23 PM

[Quote from Godfrey](#)

I think we agree that language developed over time and is not inborn but learned, possibly beginning in utero.

Chomsky and others believe the structures of language and deep grammar are hardwired.

Babies will also babble every known phoneme before weeding out the ones not needed for their culture's specific manifestation of language.

Much as I enjoy discussing the birds and beavers, I think we're over-generalizing Lucretius's analogy. I think he's really only just using the analogy of building a structure - without a blueprint/plan/exemplum you can't build the structure *if you're a human or god (the analog of a human)* Nature on the other hand has no need of a plan because the whole of the cosmos is unplanned. Atoms come together. Atoms come apart. Various things arise. Various things don't arise. There is no plan... But isn't it grand that we, birds, and beavers exist and that we can take pleasure in our and their existence.

<https://www.epicureanfriends.com/thread/1948-episode-sixty-seven-did-the-gods-wake-up-one-day-to-create-the-universe/>

Post by “Godfrey” of April 21, 2021 at 1:19 AM

[Quote from Don](#)

Chomsky and others believe the structures of language and deep grammar are hardwired.

This goes to the question "what are the prolepsis?" This is actually where I've been going with this and maybe it belongs in another thread.

I interpret this quote as referring to a faculty of "pattern recognition" with which we learn language. In my quote in post #21 I was referring to Lucretius' description of the development of language (hopefully I'm remembering it correctly). Could it be that that process of developing language is another function of pattern recognition?

Post by “Eikadistes” of April 24, 2021 at 11:12 AM

There's an interesting idea called the *Romulus and Remus Hypothesis* which suggests that modern human language could only have been developed by children: "pre-modern humans would not have been able to learn recursive language as adults, and, therefore, would not be able to teach recursive language to their own children." The author suggests that humans have a brief window to develop the ability to convey spatial relations through speech (i.e. prepositions), so ... two kids 70 millennia ago made the first joke and ... here we are.

<https://phys.org/news/2019-08-r...usly-years.html>

Post by “Cassius” of April 24, 2021 at 11:58 AM

That observation that children learn language so much more easily than adults almost certainly has to be true. I didn't read the full article but did see this:

<https://www.epicureanfriends.com/thread/1948-episode-sixty-seven-did-the-gods-wake-up-one-day-to-create-the-universe/>

Dr. Vyshedskiy explains:

"To understand the importance of PFS, consider these two sentences: "A dog bit my friend" and "My friend bit a dog." It is impossible to distinguish the difference in meaning using words or grammar alone, since both words and grammatical structure are identical in these two sentences. Understanding the difference in meaning and appreciating the mistfortune of the 1st sentence and the humor of the 2nd sentence depends on the listener's ability to juxtapose the two mental objects: the friend and the dog. Only after the PFC forms the two different images in front of the mind's eye, are we able to understand the difference between the two sentences. Similarly, nested explanations, such as "a snake on the boulder to the left of the tall tree that is behind the hill," force listeners to use PFS to combine objects (a snake, the boulder, the tree, and the hill) into a novel scene. Flexible object combination and nesting (otherwise known as recursion) are characteristic features of all human languages. For this reason, linguists refer to modern languages as recursive languages."

Maybe he's talking loosely there in referring to "mental images" but does this relate to our recent discussions about whether the mind stores pictures into memory?

Probably along the way of things to try to flesh out, the "memory" issue is also a big one, along with the question of what is stored (whether it's pictures, or something we simply perceive as pictures, or something else).