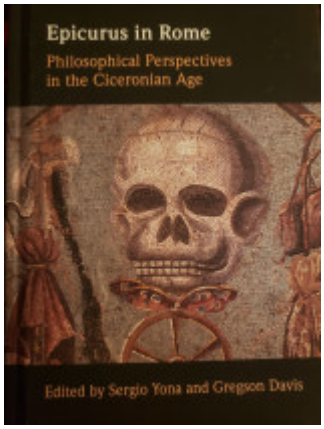
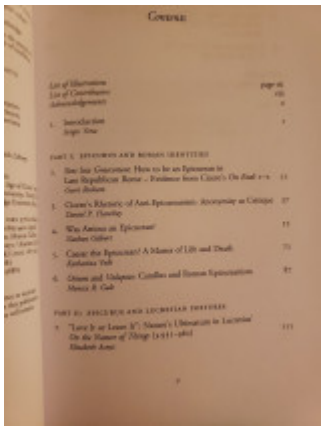
"Lucretius on the Size of the Sun", by T.H.M. Gellar-Goad

Post by “Joshua” of June 9, 2022 at 6:04 PM

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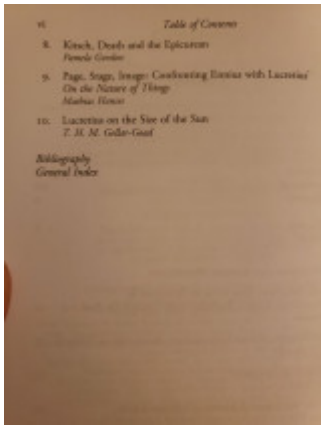
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I've just received this collection of essays, published in February, with an excellent paper concerning the size of the sun by one T.H.M. Gellar-Goad.

I may attempt an outline; in the meantime, here's a good bit toward the end;

> Quote
>
> By staking out a stance of aporia conditioned by sense-perception and reasoning thereupon, the Epicureans did in fact prove to be less wrong than everyone else [...] Epicurus and his school, in avoiding a concrete statement of the sun's size, avoided being concretely wrong, in contrast to Eudoxus and all the rest.

aporia; doubt, or a difficulty in resolving the available data into established truth.

The author is thoroughly familiar with Epicurean epistemology, and explores the question not on its face, but based on a careful understanding of the whole philosophy. I thought it was very well done.

If you can find a library copy, or get online access through an institution, you'll save a bit of coin--but it will be good to have read this as we move into the Letter to Pythocles on the podcast.

Post by “Cassius” of June 9, 2022 at 9:31 PM

New word to me - aporia? Sounds very close to aponia -. Thanks for the info on the book that article does sound promising!

Post by “Don” of June 9, 2022 at 10:13 PM

In Greek, the word occurs in On Nature, Book 14, column 16 :

column 26

P.Herc. 1148 fr. 5

Engraved 1804-1864 by Salvatore Ventrella

ἀπορίαν ϙυνε[χῶς οὐκ ἂν]

προφέροι, ϗα[ὶ παρασκευά-]

ζοι κούφισιν ὁ [λόγος ἡμῶν],

ὡς ἔοικε̣[ν] ἀνθρ[ώποις...]

5θηι [..]ατα οὐκ ἃ̣[ν παρασκευ-]

άζ̣ǫ̣[ι.]ε̣ιδ[.] δ̣ὴ̣ [□-ca.?- □]

[..] ε[.]φο[.]εϙ[□-ca.?- □]

[.....]τη̣[□-ca.?- □]

[.....τ]αρ̣αχ[□-ca.?- □]

10[.....]ρας δ[□-ca.?- □]

[.....]ε[□-ca.?- □]

Henry George Liddell, Robert Scott, A Greek-English Lexicon, ἀπορία

IV. in Dialectic, question for discussion, difficulty, puzzle

Not related to aponia.

Aporia is related to a "not" + poros "means of passing a river, ford, ferry"

Post by “beasain” of June 11, 2022 at 9:53 AM

Joshua, I am particular curious about the article of the size of the Sun.

I understand that Epicurus is only interested in astronomy to the point to obtain just enough knowledge to demonstrate that above the moon physics are as below the moon: atoms and void. Scientific knowledge is not an objective rather a methodology to reject superstition (and suffering from fear). A few 'reasonable' explanations are enough, and they are not (much) interested in making the science advance.

Is this confirmed in the article of T.H.M. Gellar-Goad?

Post by “Cassius” of June 11, 2022 at 10:14 AM

> Quote from beasain
>
> A few 'reasonable' explanations are enough, and they are not (much) interested in making the science advance.

I too need to read that article, but I will go ahead and state my view of this issue:

As to the first part of the sentence, yes one or a few "reasonable" explanations are sufficient to satisfy our most pressing need, which is to banish the allegations of the religionists that the Sun was divine, or part of a divine order.

But as to the second part of the sentence, when I see that sentiment stated in that way (and we see it often) I think that the wording is too negative and arises from modern prejudices against Epicurus. I see Epicurus as being strictly logical in his approach, which is that once he has determined (through science!) that the end of life is happiness/pleasure, then he is logically consistent and holds the tests of ALL actions in life, including the study of science, to the test: "Does it advance our happiness?" Once you conclude that there are no criteria given us in life by nature other than pleasure and pain, then you apply that conclusion rigorously and without exception.

The negative presumption that is conveyed in "not much interested in making the science advance" is the anti-Epicurean conception that there are ends in Nature which are justified IN THEMSELVES apart from whether they bring pleasure or avoid pain. Such a conclusion is logically ruled out by Epicurean philosophy.

On the other hand, Epicurean philosophy also asserts that since there is only one reason to do anything in life (pleasure/pain) you are going to do everything in life that is practical for you to pursue pleasure. And MOST CERTAINLY the advancement of science is a tremendously useful tool for advancing pleasure and avoiding pain, so MOST CERTAINLY an Epicurean is going to appreciate and pursue the advancement of science as a tool for better living.

So in my view the many times that we see statements like "Epicurus wasn't much interested in science" we are really seeing the complaint that "Epicurus wasn't interested in XXXX for the sake of XXXX itself." That argument makes no sense without realizing that the impetus behind it is the assertion that Epicurus was wrong and that he should have valued "XXXX in itself" (most generally, they are asserting "virtue" or "piety" as goals in themselves).

Therefore I think we ought not be afraid of or concerned about that "Epicurus didn't value science" argument, and instead turn the issue around and use it as a teaching opportunity for explaining why Epicurus taught what he taught.

End of rant! 

Post by “Don” of June 11, 2022 at 12:23 PM

A brief caveat: I'd be cautious about using the word "science" to describe what was going on in ancient Greece and Rome. Science as a discipline is akin - but not necessarily identical - to the "natural philosophy" practiced by the ancient Greeks. Foundations were being laid, observations were being made, and the material world was beginning to be understood. However, we have to be careful of projecting a modern understanding of the word "science" et al. onto the ancient mindset.

Post by “Joshua” of June 11, 2022 at 1:56 PM

I'll try to summarize what I recall to be the main points of the essay;

-Epicurus' primary interest in the size of the sun is to rule out the supernatural.

-A superficial reading of the passage will always be plagued with error.

-The author stresses the importance of considering the question in light of the whole philosophy.

-And that includes offering a few explanations, not just asserting one.

-Epicurus draws a distinction between how we interpret things that appear to our senses, and how those things actually are.

-The senses themselves are to Epicurus never wrong. Merely the judgment we make about sense-perception can be wrong, or not.

-The sun may be bigger or smaller than it appears, but it's not possible to know which (in the fourth century B.C) because we can never change our perspective by getting closer or going further away.

-The passages in both Pythocles and Lucretius are very noncommittal in their grammar and diction. Something like 8 subordinate clauses in five lines. So there's a resistance to speaking certainly about it. Nowhere does any Epicurean actually make a definite claim about the size of the sun.

-In the discussion on eclipses, the ancient sources seem to imply or suggest that the sun may be larger than the Earth. One of the explanations offered for eclipses is the interposition of the Earth between the sun and the moon.

-The author suggests that the sun-size issue is a didactic challenge to students and readers; like the plague at the end of Lucretius, it sets up a test to see how well you've grasped Epicurean method. The reader will come to that passage, and then feel compelled to review the other material to make sure they haven't missed something.

-The final suggestion the author makes is that the sun-size issue became a shibboleth for ancient Epicureans. That it became a way of 'sounding out' the Epicurean knowledge-base of the interlocutor. Cassius often says that hard cases make bad law. But the argument being made here is that this hard case is useful for determining how well other people really understand this. Useful for teachers with their students, or for scholarchs with their scholars.

The essay does not make the following point, which I think is nevertheless important; namely, how stupid do people think Epicurus was to say that he thought the sun was the size of an orange!?

Certainly the sun is, at minimum, bigger than the biggest object that crosses it but fails to entirely eclipse it. A lifetime's accumulated experience would surely have been sufficient for Epicurus to know that the sun was bigger than a bird. Bigger than a horse, a house, a tree, a trireme--bigger than the better part of a mountain. Bigger than the moon.

Post by “beasain” of June 11, 2022 at 5:24 PM

Cassius 

I was in fact referring only to the case of astronomy. As far as I perceive Epicureans were not that that much interested in astronomy, maybe because it was very speculative, and that was a wise position, because there was very little that could be known about the nature of stars and planets without a telescope, etc.. Of course there were astronomical calculations of positions but they don't make us any wiser about celestial materials. The Epicureans don't seem to be

very interested in calculations of celestal positions neither. I understand that for Epicurus the Earth was a flat disc and the centre of this cosmos, one amidst an infinite number of others.
When we dig a bit in the Letter to Pithocles, we observe that Epicurus stresses that for the things above us we "

admit of more than one cause of coming into being and more than one account of their nature which harmonizes with our sensations."

In the letter indeed appears for each phenomena multiple explanations, that seems not very precise, and the main objective seems to be the demonstration that we can imagine for each phenomena numerous physical explanations that don't need any mythological input, and thus also the things above us follow 'normal earthly physics'. I hope to have explained myself better now.

> Quote from Letter to Pithocles
>
> [85]...
> First of all then we must not suppose that any other object is to be gained from the knowledge of the phenomena of the sky, whether they are dealt with in connection with other doctrines or independently, than peace of mind and a sure confidence, just as in all other branches of study.
>
> [86] We must not try to force an impossible explanation, nor employ a method of inquiry like our reasoning either about the modes of life or with respect to the solution of other physical problems: witness such propositions as that ‘the universe consists of bodies and the intangible,’ or that ‘the elements are indivisible,' and all such statements in circumstances where there is only one explanation which harmonizes with phenomena. **For this is not so with the things above us: they admit of more than one cause of coming into being and more than one account of their nature which harmonizes with our sensations.**

Post by “Cassius” of June 13, 2022 at 10:43 AM

Ok as I write this I will try to restrain my enthusiasm:

This is an OUTSTANDING article. I completely agree with the author's analysis and direction, and if this is an example of the very latest Epicurean scholarship then we are definitely moving in the right direction.

The writer builds IMHO a very strong case that the summary viewpoint "The sun is the size that it appears to be" is an Epicurean "litmus test" of a proper understanding of the philosophy, akin to "Death is nothing to us" or "nothing can be created from nothing."

As we are currently discussing in the podcast, reaching conclusions about things we see in the sky presents a difficult issue of limited evidence, and the worst thing we can do is to affix ourselves to a single position when multiple options are possible.

The statement that the size of the sun is what it appears to be does not give a single answer, but emphasizes that any or all answers must be based on "appearance" (the senses) which is what EVERY conclusion in life must also be based upon.

The concluding section of the essay goes into this in much more detail and I highly recommend it. I think the position he advocates is where many of us are already on this topic, but this article goes further than Bailey or even Sedley and really nails down a position that I think will serve most of us very well going on into the future. It will also nail us more firmly into the position that the senses are the foundation for all our conclusions about reality, and in fact that is very likely the intended purpose of the formulation.

We may have to designate someone every Twentieth to start the session saying:

"The Size Of The Sun Is As It Appears To Be!"

Post by “Cassius” of June 13, 2022 at 10:50 AM

Something else I want to check:. I believe this article is one of those situations where we can point out that Dewitt did not defend Epicurus strongly enough! I seem to remember but need to check that Dewitt hints at this analysis but in the end considera Epircurus to have been wrong on this issue. If so then this current article will definitely supercede Dewitt's analysis on this issue.

Post by “Cassius” of June 15, 2022 at 11:46 AM

This post and the next are the two final sections of this article, for those who don't have access to the full thing. I consider this to be little short of a brilliant summary of the issue:

> Quote
>
> Size of the Sun as Epicurean Shibboleth
>
> The Epicureans did not believe that the sun was the size of a human foot. They distinguished between the sun's actual size and the size of its appearance, the latter of which was the only magnitude measurable from earth with the technology available. In this matter as almost everywhere else, the Epicureans appealed to the truth of sense-perception – with the important caution that discerning reality from appearance requires perception-based judgment, which itself is not guaranteed to be true. In Lucretius' poem, the discussion of solar magnitude adds more detail to Epicurus' original conception, especially with the introduction of the sun's heat into the passage. Complicated style emphasizes how full of hedges and conditioned claims the Lucretius-ego is, and his thorny exposition of the doctrine amounts to a didactic challenge that sends readers elsewhere in his work, to ponder perspective and to hunt down a proper understanding of this aspect of the natural world.
>
> By staking out a stance of aporia conditioned by sense-perception and reasoning thereupon, the Epicureans did in fact prove to be less wrong than everyone else. Algra emphasizes that "all ancient estimates of the size of the sun, including those put forward by the mathematical astronomers, were false."The failing of ancient mathematical science in estimate- making was pervasive since, Geoffrey Lloyd notes, "an important recurrent phenomenon in Greek speculations about nature is a premature or insecurely grounded quantification or mathematicisation." Epicurus and his school, in avoiding a concrete statement of the sun's size, avoided being concretely wrong, in contrast to Eudoxus and all the rest. The sun passage in DRN pushes the reader towards non-commitment rather than risking such a misjudgment.
>
> In closing I argue that the size of the sun is an Epicurean shibboleth. In Epicurus,in Lucretius and in Demetrius,we see the same nostrum repeated, with progressive elaborations that do not fully clarify the basic precept. The persistence of Epicureans in this formulation is not so much the result of reflexive dogma or pseudo-intellectual obscurantism as it is a passphrase, a litmus test. Think like an Epicurean, and you will figure out that the sun's appearance and the sun itself are two related but distinct things with two different sizes; that you must keep the infallible data of the senses, tactile as well as visual, in proper perspective when making judgments about your perception; and that the available data is insufficient to estimate the sun's magnitude to an acceptable degree of confidence (compare Barnes: 1989, 36). Think that Epicureans believe the sun's diameter is a foot,that they are absurd,and you have

> exposed yourself as un-Epicurean. The first/second-century AD Stoic doxographer Cleomedes, who as Algra points out “nowhere takes account of the Epicurean principle of multiple explanations,”likewise fails this test when he mocks Epicurus’ position on the size of the sun.
>
> Thinking like an Epicurean – rather than figuring out the actual size of the sun – is, I suggest, the point of the Lucretian passage on the size of the sun, as it is indeed the fundamental point of Epicurean natural philosophy generally. Constantina Romeo suggests that Epicurus’ moral program of liberating humankind from the fear of death motivates his followers’ ardent defense of his claims on the sun’s size. Since Epicurus presented understanding of the natural and celestial world as essential for a life of ataraxia, “*nel momento in cui lo Stoico ritiene di avere dimostrato l’errore di Epicuro nella scienza della natura, sostiene pure che Epicuro non ha dato nessun conforto di fronte alla morte*” (“*in the moment in which the Stoic [Posidonius] thinks he has shown Epicurus’ mistakes in natural science, he also claims that Epicurus has provided no comfort in the face of death*”).
>
> Yet Posidonius has actually failed the test, has misunderstood the stakes of the debate. Precise measurement of the sun’s size is not what is at issue for the Epicureans, and so proof of scientific error does not vitiate Epicurus’ moral philosophy. The Epicureans pushed back so fiercely against their opponents’ (mis)characterizations of Epicurus’ position because of the underlying epistemological and phenomenological principles. It does not matter to Epicurean ethics or to ataraxia whether the size of the sun is known. After all, the Epicureans did not even need to afix a certain size to the sun to accomplish their core epistemological objective: to remove anxiety about divine control over cosmological phenomena. What matters, and the underlying reason for this Epicurean shibboleth, is a readiness to use careful reasoning and good judgment to embrace uncertainty about the nature of things without succumbing to the anxiety-inducing fear of death.
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Post by “Cassius” of June 15, 2022 at 12:02 PM

Equally or more important:

> Quote
>
> Size of the Sun as Didactic Challenge

Getting to this state of reasoned aporia is no simple task, as my ruminations above indicate. The text of DRN presents what can be taken on a simple surface reading to mean that the sun is the size of a soccer ball, a claim that may strike ancient and modern readers alike as patently ridiculous. I suggest that the complication and the seemingly questionable wording are part of the point of the passage, a call for us to apply our Epicurean philosophical and critical thinking to a knotty problem. In this respect, the Lucretian presentation of the size of the sun can be compared to the role of hunting imagery throughout the poem (Whitlatch: 2014) or the final-exam interpretation of the plague scene at the poem's end (e.g., Clay: 1983, 257-266). Each of the three constitutes a didactic challenge to the reader, whose successful progression through the Lucretian narrator's didactic plot entails solving the riddle it presents.

A principal element of the response to the solar challenge is to think about optics and perspective when it comes to figuring out the size of the sun. Contrary to Barnes' claim that "there is virtually no evidence on how the Epicureans understood the perception of size," recent scholarship on perspective in the atomic theory of Democritus gives ample clues for Epicurus' own thinking, which can in turn be confirmed as Epicurean by examination of relevant passages elsewhere in Lucretius' DRN. Kelli Rudolph's study of Democritus clarifies the theoretical function of eidola in the perception of size in relation to distance. Rudolph also explores the importance of Democritus' metaphor of wax impressions for his atomic theory of vision: Because "a wax impression is an isomorphic copy of the original, but never an exact replica" (2011, 79), the eidolic-vision theory of Democritus allows for "epistemic uncertainty in the images we see" (80). Since, according to Democritus, sight consists in the physical reception of physical emissions from viewed bodies, the objects so viewed and visions of them should not be considered identical, because the εἴδωλον of the thing is never the thing itself. For Epicurus and his followers who have adopted Democritean atomism and optics, therefore, visual sensation – though it may (inasmuch as it is a sense-perception) be infallible – requires active cognition in order for sensations to be properly related to and with their sources.

We can verify that some such theory of vision at a distance is in force in DRN by considering passages that deal with perspective in the treatment of simulacra in Book 4. The main description of how we are able to judge distance by sight appears at 4.244-255. In essence, the image emitted by the perceived object to the viewer pushes the intervening "air" (aer, 247-251) past the viewer's eyes, and the quantity of the air is directly proportional to the distance between viewer and viewed. That the sun falls into the category of distant objects requiring intentional perspective-taking along these lines is arguably obvious, but is also suggested by the Lucretian speaker's explanation, shortly thereafter in the same book, of the sun's blinding power (4.325-328). According

to the Lucretius-ego, the sun is endowed with great power even though it is shining from on high (vis magnast ipsius . . . alte, 326); the sun's simulacra, therefore, as they travel through air (aera per purum, 327, a phrase that looks back to the importance of air in 4.244-255), can strike the eyes heavily enough to harm their atomic compounding. From these lines the reader can determine that the sun is not entirely a special case, but is subject to the same air-based perspectival adjustments as are other observable objects.

The image most often cited by scholars examining the Lucretian treatment of perspective is that of the tower seen from far away (4.353-363), which is square but appears at a distance to be round. According to the speaker's explanation for the apparent roundness of the tower's "angle" (angulus, 355), "while the simulacra are moving through a lot of air, the air with constant collisions forces it [the angle] to become dull" (aera per multum quia dum simulacra feruntur, | cogit hebescere eum crebris ostensibus aer, 358-359). As a result, "every angle all at once has escaped our perception" (suffugit sensum simul angulus omnis, 360). That the tower appears round does not make it round; that the tower is in reality square does not invalidate our perceiving it as having a round appearance from a distance. The fact that the Lucretian discussion of the size of the sun invokes readers' sense-perception (with videtur at 5.565, inter alia) prompts them to think back to the Lucretian discussion of perception at a distance, and to recall from the tower example that data derived from visual perception degrades over distance along with the simulacra themselves. We know intuitively that the sun is farther away than such a tower, and thus we know that we need care in assessing the size of the sun, just as we would in assessing the size (and shape) of a far-off tower.

Finally, there must be perspective-taking on our tactile sensation of warmth as well as on our sight. The heat emitted by a candle, by a bonfire and by a burning building fades away at profoundly different distances – an important piece of evidence in figuring out just how big the sun appears to be. Similarly, the Lucretian speaker's explicit introduction of heat into the Epicurean doctrine on the size of the sun may suggest to readers that they ponder as well the difference in perceived heat transmitted by the sun and the moon, despite the roughly equivalent percentage of the sky they fill – attested by, among other things, the moon's ability to eclipse the sun for terrestrial viewers. Vision alone, it appears, is insufficient for solving the puzzle.

So the implied prompts to remember the role of heat in addition to light, and to apply our understanding of perspective to the question of the size of the sun, amount to another current in the didactic airstream of DRN. The Lucretian speaker, rather than merely parroting a ruthlessly ridiculed doctrine, instead pulls his student-readers into the process of inquiry. It becomes the didactic audience's task to receive data from sense-perception, and to use lessons learned earlier in the poem (as about perspective

> and distance, cf. 4.239-268, 353-363) in making correct rational judgments based upon that sense data. Asmis reminds us that for the Lucretius-ego “there is no clash between the judgment of the senses and objective reality, because the type of fact that seems to be in conflict with sense perception does not fall within the province of sense perception at all, but belongs to an entirely distinct domain of reality . . . judged by reason.” As Demetrius Lacon writes of a related solar question, “the sun does not appear stationary, but rather it is thought to appear stationary” (Greek omitted, PHerc. 1013 col. 20.7-9; cited by Barnes: 1989, 35-36 n.36). Tricky cases such as the size of the sun, where sense data is incomplete, may require suspension of such reasoned judgment, until enough evidence becomes available to evaluate our hypotheses through the process of ἐπιμαρτύρησις, until which point the opinion must remain a προσμένον.
>
> In the Epicurean and Lucretian account of reality, the senses themselves are infallible. The Lucretian speaker’s assertion that the sun is just as big as it is perceived to be by our senses must therefore also be infallible – just as the perception that the sun is bigger when it is close to the horizon at sunrise and sunset must be infallible, without our having to believe that the sun actually changes sizes dramatically during the day. But our interpretation of what exactly that assertion entails about the sun’s actual size is a matter of judgment, and as such is fallible and uncertain indeed. As with the argumentation presented by the Lucretius-ego throughout the poem, and as with the gripping, awful plague scene at the end of Book 6, we must be keen-scented, relentless and detached from mundane concerns and fears in order to reckon and judge accurately in cosmic matters.
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Post by “Cassius” of June 15, 2022 at 1:39 PM

From the above:

"*In this matter as almost everywhere else, the Epicureans appealed to the truth of sense-perception – with the important caution that discerning reality from appearance requires perception-based judgment, which itself is not guaranteed to be true.*"

My reason for posting this:

1. I think it's an extremely perceptive sentence.
2. I wonder if Gellar-Goad was correct in including the "almost"(?) Would the sentence be equally or more accurate without the "almost?" Is there any issue in which Epicurus does

NOT appeal to the truth of sense-perception with the caution that discerning reality from appearance requires perception-based judgment, which is itself not guaranteed to be true?

1. This question might take us into the question of whether "anticipations" and "feelings" (the other two legs of the cannon) should be considered to be "perceptions." It tend to think that the answer to that is "yes," but I can see how it would be argued "no." For purposes of this question, however, I do tend to think that we "perceive" anticipations and feelings.
2. I really like the qualifier "perception based judgement" as a way of emphasizing that Epicurus warned against relying on logic divorced from real evidence.
3. I also really like that qualifier "which itself is not guaranteed to be true!" That's an important reminder that while Epicurean philosophy is the best philosophy we have, using it doesn't make us ominiscient or omnipotent. It's very possible even through rigorous application of Epicurean reasoning to be mistaken, especially when we simply don't have access to the raw data we want and need to be correct. The claim "*Christians aren't perfect, just forgiven!*" would become something more like "*Epicureans aren't perfect, just doing the best it's possible for humans to do*!"

Post by “beasain” of June 16, 2022 at 5:57 AM

> Quote from Cassius
>
> we can point out that Dewitt did not defend Epicurus strongly enough

An author that very strongly defends Epicurus through his historical analysis of Ancient Greek philosophy is Benjamin Farrinton e.g. in "The Faith of Epicurus" or in "Science and Politics in the Ancient World". For me he is the best author that I have read so far about the historical and economic backgrounds of Greek Philosophy/"Science". He is marginalised but often cited. The effect of the slavery economy is according to him a very important factor. I think that his books are worth reading although they are mostly from around the 1950's. The knowledge of economic backgrounds to interpret the work of a philosopher is maybe key in understanding his work.

Post by “Don” of June 16, 2022 at 7:38 AM

I personally was not aware of (or had forgotten) Farrington. A number of his books are on Internet Archive:

Internet Archive Search: Benjamin Farrington

Post by “Bryan” of July 19, 2025 at 4:34 PM

> Quote from Cassius
>
> "The Size Of The Sun Is As It Appears To Be!"

I wanted to share this section of Sextus Empiricus (fl.c. 200 CE), Against the Professions 7 (Against the Logicians/Dogmatists 1) 207-9, where he is arguing from the Epicurean perspective:

"Let us make the reasoning based on visible things in this way: the hard object is not seen as a whole, but only the color of the hard object. Of the color, one part is on the hard object itself (just as in things seen from nearby and from a moderate separation) – the other part is outside the hard object and underlying in the adjacent locations (just as with things envisioned from a distant separation). But this, being completely changed in the intervening space and taking on a particular shape, delivers such an appearance as the kind of thing which it also underlies in truth.

In just the same way, therefore, neither is the sound thoroughly heard in a bronze instrument that is being struck, nor the sound in the mouth of the man who shouted ¬ but rather the sound that is falling upon our sensation.

And in the same way that no one says a person hearing a sound from a small distance hears falsely just because after he has come nearby he instead receives it as louder: in this way I would not say that vision is deceived because from a far separation it sees the tower as small and round, but from nearby as larger and tetragonal.

Vision truly reports. Even when the sensible object is apparent to vision as small and of a certain shape: it really is small and of a certain shape – due to the transmission through the air, as the edges of the films are being broken off.

And when it appears again large and differently shaped, it is again similarly large and differently shaped – since by now both appearances are not established as the same thing. This is what remains of distorted judgment: to suspect that the appearance envisioned from nearby

and from far off was the same."

Post by “Cassius” of July 19, 2025 at 5:21 PM

Excellent backup Bryan, thank you for posting!