

"On Methods of Inference": Notes For Review And Discussion (Including David Sedley Article: "On Signs")

Post by "Godfrey" of August 26, 2021 at 1:51 AM

[EDIT BY CASSIUS: [Here](#) is a link to the [DeLacey Translation](#) including the [DeLacy Appendix](#) which gives a lot of background on the epistemology issues.]

(Note: these are my personal notes. Not all of these notes are from the book; some are from Google to help me further understand the basic ideas, and some are my "notes to self".)

Signs: what you see or what you think about

"All instruction is either about things or about signs; but things are learnt by means of signs. I now use the word "thing" in a strict sense, to signify that which is never employed as a sign of anything else: for example, wood, stone, cattle, and other things of that kind. Not, however, the wood which we read Moses cast into the bitter waters to make them sweet, nor the stone which Jacob used as a pillow, nor the ram which Abraham offered up instead of his son; for these, though they are things, are also signs of other things. There are signs of another kind, those which are never employed except as signs: for example, words. No one uses words except as signs of something else; and hence may be understood what I call signs: those things, to wit, which are used to indicate something else. Accordingly, every sign is also a thing; for what is not a thing is nothing at all. Every thing, however, is not also a sign. And so, in regard to this distinction between things and signs, I shall, when I speak of things, speak in such a way that even if some of them may be used as signs also, that will not interfere with the division of the subject according to which I am to discuss things first and signs afterwards. But we must carefully remember that what we have now to consider about things is what they are in themselves, not what other things they are signs of. AUGUSTINE, De Doctrina 1.2." From the Heidelberg

Chapter 2, Introduction to Philodemus On Methods of Inference

Per the Stoics:

- Common sign: exists whether the unperceived object that it signifies exists or not. Therefore not a reliable basis of inference.

- Particular sign: exists only when the unperceived object that it signifies exists. If the existence of the object signified is denied, then the existence of the sign must be denied as well. These provide the only reliable grounds for inference and are established through the purely formal

test of contraposition.

- Contraposition: inference from a logically equivalent contrapositive.
- Contrapositive: "if not-B then not-A" is the contrapositive of "if A then B."

Per the Epicureans:

- The relation between sign and thing signified is learned only through perception, through the method of induction or analogy. We infer the nature of unperceived objects by analogy with the objects in our own experience.
- Inductive reasoning makes broad generalizations from specific observations; aims at developing a theory.
- Deductive reasoning works from general to specific; aims at testing a theory.
- *If a constant connection between objects is not first established by perception, contraposition is impossible.*
- Epicureans use inductive reasoning, and agree that common signs are not a valid basis of inference.
- Inconceivability, not logical necessity, is a criterion of a particular sign and is based on past experience. *An inference from signs is valid if it is inconceivable that the sign exists when the thing signified does not. (page14) (Hmmm. What are some examples of this?)*
- The four empirical criteria of truth: perception, anticipation, mental perception and feeling. Mental perception is defended and used in reference to knowledge of the gods.

Post by "Cassius" of August 26, 2021 at 8:14 AM

[Quote from Godfrey](#)

There are signs of another kind, those which are never employed except as signs: for example, words.

So in many instances in Philodemus when he is talking about signs he may in fact referring to "words"?

It seems to me that "signs" is very ambiguous to most people in this context and we really are going to have to see if we can agree on and emphasize a clear definition here.

Godfrey are your references from chapter two quotes, or your own summaries?

The information you included in that post seems highly helpful and very important, but I am not yet shaking the feeling that a lot more is going to be needed to make the points clear. "Contraposition" might actually be easier to understand because we don't have a preconceived notion of what that means. But "sign" is a word we think we understand, and it seems to be used here in a very technical sense that is going to be easy to confuse. If I recall OMOI is full of sentences using the word 'sign' so it would really be nice if we could articulate something that would get people comfortable with use of the word "sign" in a context like what they are going to read.

I have no feel for whether the Augustine quote is accurate or trustworthy or not, but I do think that an elaboration and explanation like he is giving there (but maybe considerably longer) is what is needed.

Post by “Cassius” of August 26, 2021 at 8:26 AM

[Quote from Godfrey](#)

Accordingly, every sign is also a thing; for what is not a thing is nothing at all. Every thing, however, is not also a sign.

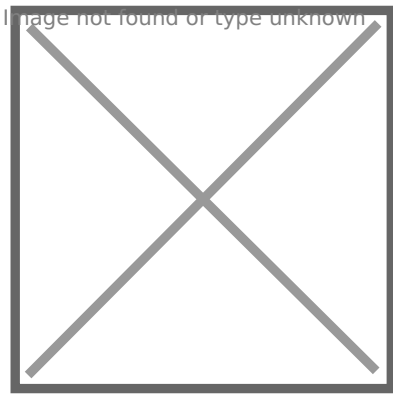
This would appear to be a very critically important assertion if it is in fact an accurate representation of the position that Philodemus is taking, but I have no clue how reliable this statement should be considered to be. Is this in fact an accurate summary of the way (1) philosophers in general, and (2) Philodemus, think? I immediately worry that this conclusion may be "begging the question" and assuming a position with which Philodemus may not agree.

Do we know for sure that Philodemus would agree with this?

Post by “Don” of August 26, 2021 at 8:39 AM

I just found these two that might be helpful with regard to signs:

David Sedley: On Signs

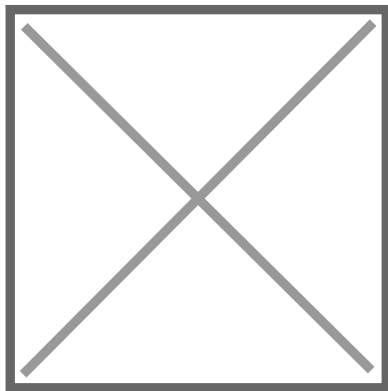


[On signs](#)

On signs

www.academia.edu

A lengthy review of a book on Philodemus's On Signs



[Philodemus De signis: An important ancient semiotic debate](#)

Philodemus De signis: An important ancient semiotic debate

www.academia.edu

Post by “Godfrey” of August 26, 2021 at 5:13 PM

[Quote from Cassius](#)

Godfrey are your references from chapter two quotes, or your own summaries?

Some of these direct quotes but most are my paraphrases. Also I've included definitions from other sources to try to make sense of the DeLacey commentary. This is all out of my wheelhouse and the terminology is new to me; these notes are literally my attempt to read and

make sense of this material. Hopefully it's of some value but it's definitely not "gospel!" 😊

I agree that a lot more information is needed to make the subject clear. This material is dense and extremely confusing for a novice such as myself. As you point out [Cassius](#) it's difficult to understand what is meant by "signs," and that seems to be the most basic idea involved! Hopefully the additional papers will bring some clarity.

Post by "Cassius" of August 26, 2021 at 6:23 PM

You're seeing exactly what I saw Godfrey. Even now I'm not sure what to make of the terminology. Maybe the Sedley article Don found above will help us all.

Is the reference above to "On Signs" the same as "On Methods of Inference"? It would seem likely but I haven't verified that, so it's interesting if DeLacy has already "translated" the title for us.

Post by "Cassius" of August 26, 2021 at 6:32 PM

Good grief. So according to Sedley there is a second edition of DeLacey's translation of Philodemus on Signs. I don't see that listed anywhere though --

7. *Philodemus, de Signis*

With the appearance in 1978 of Philip and Estelle De Lacy's second edition of *Philodemus, de Signis*, one which unlike its predecessors is based on adequate papyrological information,¹ the time is ripe for renewed discussion of this work and its place in Hellenistic philosophy. Its real title is *Philodemus, On [. . .] and Signs-appearances*. The missing word may be *phantasiai*, 'impressions', or *phantasmata*, 'appearances', but this need not concern us now

1. P. and E. De Lacy, *Philodemus, On Methods of Inference (Signis)*, (1978), Marzello Gigante, director of the Centro Internazionale per lo Studio dei Papiri Egizi, generously supplied the editors with the readings of the papyrus, and to the end was able to call upon the expert papyrological assistance of Francesco Longo Karabich and Adèle Trepollina Guerra. Previous editions and discussions had relied mainly on the 19th-century editions of T. Gomperz, *Historische Studien zu Philodemus über Induktionsschließen* (Leipzig, 1864), F. Reischach, *Die Episterei Philodemos Schrift De methodo et significatione* (Ljck, 1896), R. Philippson, *De Philodemi Libri qui est Insignis et significatione* (Leipzig, 1891), cf. *Zur Wiederherstellung von Philodemus sog. Schrift De methodo et significatione*, *Blatt. Mus.* 64 (1909), 1-16, and the De Lacy's first edition (Philadelphia, 1941). A full bibliography on the *de Signis* can be found in M. Gigante (ed.), *Catalogo dei papiri egizi* (Naples, 1979), 217-9. My debt to the De Lacy's hard and scholarly book is enormous, and if I shall have more occasion to signal disagreement than agreement in this paper, that is mostly because much of their contribution to our understanding of the work has become by now part of the common stock of knowledge. On the other hand, their text (unless any papyrological text) should not be regarded as definitive. I propose several observations on it in this paper, and it is only the earnest choice, pending repair, of the reading chosen at the *Officina de Papiri Egizi* in Naples that has so far prevented me from checking all passages discussed against the papyrus. In due measure I have been greatly helped by Francesco Longo Karabich and Adèle Trepollina Guerra, who have very kindly provided information from the notes which they took during their recent autopsy of the papyrus. But, except where indicated, the text followed in this paper is that of the De Lacy's second edition. I also take this opportunity to express my gratitude to Jonathan Barnes, Jonathan Lata and Malcolm Schofield for their generously helpful written comments on the first draft of this paper, and to many participants at the Paris conference for the valuable criticism which it received there.

Presumably that won't change his commentary much but I sure would like to see the updated text.

Post by “Cassius” of August 26, 2021 at 6:38 PM

This seems sort of clear. The Epicureans followed analogy and induction. (I remember DeWitt saying they use deduction too.)

The Stoics follow "elimination" method, which I presume is what is referred to in

It seems to be common ground to the Epicureans and their Stoic adversaries that there are only two possible kinds of sign-inference (cf. 8.7–10). One is *ho kath'homoiotēta tropos*, the similarity method, which roughly speaking covers analogy and induction. This is the principal Epicurean method, but the Stoics reject it as invalid and restrict sign-inference to *ho kat'anaskeuēn tropos*, the elimination method. It is with this latter that we start.

Post by “Godfrey” of August 26, 2021 at 6:38 PM

I assume that they're the same thing. The original title is unclear, DeLacey discusses this on pages 10-11.

Post by “Cassius” of August 26, 2021 at 6:42 PM

So Sedley rejects the "contrposition" term:

Most modern interpreters, at least since Bahnsch in 1879,¹⁶ have identified this *anaskeuē* method as ‘contraposition’. The principle is then that any conditional ‘If p , q ’ is to be tested by asking whether its contrapositive ‘If not- q , not- p ’ is sound. This seems to me a wholly inadequate interpretation, for the law of contraposition holds good for any account whatsoever of conditional validity. Even a Philonian material implication like ‘If it is day I am talking’ (*PH* II 100) will, if true, yield the true contrapositive ‘If I am not talking it is not day’. Yet this is hardly an instance of *anaskeuē*: if someone denies that I am talking he does not *thereby* deny that it is day. Admittedly at II.26–12.36 Philodemus replies to an argument in which the Stoics had apparently cited the law of contraposition in support of (not, however, as being identical with) the *anaskeuē* method. But there the perfectly proper Epicurean reply is given that the law of contraposition is valid even for those whose use of conditionals does not conform to the *anaskeuē* method. To translate *anaskeuē* as ‘contraposition’ thus renders the passage unintelligible.

Post by “Godfrey” of August 26, 2021 at 6:43 PM

Oops we cross posted. My post #9 is referring to post #6.

Post by “Cassius” of August 26, 2021 at 6:43 PM

Don't worry, Godfrey. Don is going to come to our assistance and figure all this out for us! In fact I think I'll take another nap and wait. 😊

Post by "Cassius" of August 26, 2021 at 6:46 PM

Here's an interesting one:

cally, yes.²⁴ Rejecting the Epicurean inductive inference from the mortality of men within our experience to the mortality of men outside our experience, the Stoics teasingly offer alternative formulations which they judge valid, for example 'Since the men within our experience are mortal, so too if there are elsewhere men resembling the men within our experience in other respects and especially in respect of being mortal, they would be mortal' (2.36–3.4); or 'Since the men within our experience are mortal, and if elsewhere there are mortal men, they are mortal' (3.10–12); or again, 'Since all men resemble men within our experience also in respect of being mortal, all men must be mortal' (19.36–20.4). Finally, their own serious formulation of the argument is: 'Since men within our experience are mortal *insofar as* they are men, men everywhere are mortal' (3.30–5; cf. 35.2–3). It is clear that both the frivolous and the serious formations offered as valid share the characteristic of resting on a purely logical relation of entailment.

I interpret that to mean "The Stoics are playing a word game."

Post by "Cassius" of August 26, 2021 at 6:51 PM

mortality of men outside our experience, the latter by analogical inference from the properties of perceptible bodies to those of atoms. In either case the formula used in the similarity method is 'Since x is F , y is F ', the ground of implication being the resemblance of y to x . The Epicurean approach contains two main strands. They defend the similarity method against the charge that it lacks scientific rigour; and at the same time they try to show that the Stoic quest for a purely deductive scientific method is delusory since it cannot help relying on inductive premisses.

Despite the terminology difference I find this to be pretty similar to what Delacey is saying.

Post by "Cassius" of August 26, 2021 at 6:52 PM

Yes I recall DeLacey talks a lot about inconceivability and this makes sense to me as an "empirical" rather than logical test:

since it cannot help relying on inductive premisses.

I begin with a brief look at those sign-inferences which they consider to depend solely on the similarity method. An example is 'Since Epicurus is a man, Metrodorus is a man' (14.2–27; cf. 12.14–31). The similarity between the two subjects is so strong that it becomes 'inconceivable' that an essential predicate of one should fail to belong to the other. This kind of inconceivability may lack strict logical force, but it is regarded as an entirely cogent criterion of inference,⁴⁶ and the best available (12.32–6; 33.1–9). Sometimes it establishes direct resemblances; to take a mathematical example, it is inconceivable that while the square of four in our world has an area equal to its perimeter its counterparts in other worlds should not (15.28–16.1). Sometimes the inference is analogical: it is inconceivable that while all phenomenal bodies have weight atoms should not (37.12–24).⁴⁷

In fact it also may hark back to our discussions elsewhere on the "feeling" of certainty.

Post by "Cassius" of August 26, 2021 at 6:55 PM

Probably a very important summary of the Epicurean position that our opinions should be based on observation and experience and not on "pure logic"

The favoured example of a sign-inference based solely on the similarity method is 'Since men within our experience are mortal, men outside our experience are mortal', and it is instructive to follow its role in the debate. First of all, it illustrates the Epicureans' grounds for defending the cogency of their method. The premiss that men within our experience are mortal embodies, they point out, extensive research and weighing up of evidence. Both historical records and current experience support it without

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exception; it is seen to persist through all other variations in men's characteristics; and there is no known obstacle to believing it. It is the cumulative effect of these considerations that makes irresistible the conclusion that men outside our experience (even the British, if there are any – 5.33–6) are mortal. The false inductive inferences brought forward by the Stoics as counter-examples all fail to meet at least one of these requirements.

Post by “Don” of August 26, 2021 at 7:59 PM

<http://wiki.epicurism.info/Philodemus/>

According to this, there are at least 3 books in *On Signs and Methods of Inference* contained in PHerc 1065.

It also lists *On Methods of Inference* (1978)

Is Delacy a full translation of PHerc 1065?

I'd suggest we take a closer look at the paper by Manetti.

PS According to chapter 2 of Delacy, his work does appear to be a translation of PHerc 1065. If you read that chapter, it also seems to allude to the *On Signs* alternative title.

<http://www.epicureanfriends.com/thread/2164-on-methods-of-inference-notes-for-review-and-discussion-including-david-sedley-a/>

Post by "Cassius" of August 26, 2021 at 8:18 PM

Yes I am thinking that "On Signs" and "On Methods of Inference" are probably one and the same Herculaneum scroll

Post by "Cassius" of August 26, 2021 at 8:20 PM

At this moment I am rushing to finish David Sedley's article to see if I am going to be forever struck-through-the heart disappointed in him, or whether he basically agrees with DeLacey's point I keep underlining. I am sure there was and is a lot of pressure on him to go with the Stoic/Platonic position.

Post by "Cassius" of August 26, 2021 at 8:23 PM

Yes this is really the whole ball of wax. The Platonist /Stoics are playing "word games." They are asserting that by means of incantations -- If this, then that - and similar syllogistic reasoning they can deduce "universals" that they attach a truly mystical significance too, and the Epicureans were fighting all the way against that. Our wishes and our words do not create reality -- reality is reality, and we simply do the best we can to describe it in words. There are no "forms" or "ideas" or "concepts" floating in the air waiting for us to discover them.

definitional properties like man's mortality (35.4-29).

This looks like a head-on confrontation between empiricism and rationalism. The Epicureans must have felt that in claiming that science could work purely by deduction from necessary truths the Stoics were failing to attach sufficient weight to the inductive element in the human learning process to which their epistemology paid lip service (*SVF* II 83; Cicero, *Ac.* II 21, 30). And one can see the point of their refusal to bow to Stoic pressure by reformulating the mortality argument into a deductively valid one: either way it rested primarily on the inductive similarity method, and nothing was gained by adopting a formulation which disguised this fact.

Post by "Cassius" of August 26, 2021 at 8:29 PM

Page 261 and 262 are very dense where Sedley is asking why the Epicureans seemed to concede a part of the argument.

We'll ask Don to comment particularly on that one! 😊

What's going through my mind too is that these are the 70 BC Roman Epicureans like Torquatus who were willing to deviate from Epicurus, so I wouldn't concede that any concessions made by them were necessarily made by Epicurus himself.

Post by "Cassius" of August 26, 2021 at 8:38 PM

Not gonna get off on this right now, but we ought to make note that if this assertion is correct it plays into "isonomia" and probably "nature never makes only a single thing of a kind." I haven't looked up this reference in Lucretius:

...concept of natural order and consistency that makes random phenomena. Unfortunately must pass that test too, and all of those must therefore be accepted as true, if not in our world then at any rate in some part of the universe, whose infinity guarantees that all possibilities are realized (Lucretius V 426-33).⁷⁴ If, then, the multiple-explanation principle is an answer to the problem of choosing between existing cosmological doctrines of equal explanatory power, it may well be that a similar motivation lies behind the claim that for the basic laws of physics only one theory is consistent with phenomena. For Epicurus did not regard his own system as definitively established until he had shown rival physical theories to fail the test of consistency with phenomena. Books XIV and XV of his work *On Nature* were probably devoted to this enterprise,⁷⁵ and are represented for us in Lucretius by the refutations of Heraclitus, Empedocles and Anaxagoras (l. 653-920).⁷⁶ Thus Epicurus' methodology arises from something re-

74. See under the various names of the Procrastina in the *Index* section to H. Usener's *Epicurus* (1887). I have argued against the contention that Epicurus despised all other philosophers and desired any debt to them in "Epicurus and his professional rivals" (in *Studies on Epicurean antiquity*, ed. J. Bollack, A. Laks, Göttingen & Philadelphia: 1976), 119-92.

75. Where a plurality of uncausal explanations is found for a single class of phenomena, e.g. winds-spirits, lightning (l. 129, 138-140), they are accepted as all concurrently true even within one world. It must be where they all account for an individual, if concurrent, phenomenon, e.g. the waxing and waning of the moon (l. 144-5), that not more than one is held to be true in our world, and the others true for similar phenomena elsewhere. Lucretius' methodological pronouncement at l. 920-33, and his parallel of the corpse for which we can only list the possible causes of death and know that only one is true, yet cannot say which it is (l. 702-11), matches the second kind of case, but not the first.

Post by "Don" of August 26, 2021 at 8:45 PM

Lucretius V.526-33

This only do I show, and follow on
To assign unto the motions of the stars
Even several causes which 'tis possible
Exist throughout the universal All;
Of which yet one must be the cause even here
Which maketh motion for our constellations.
Yet to decide which one of them it be
Is not the least the business of a man
Advancing step by cautious step, as I.

Post by "Cassius" of August 26, 2021 at 8:49 PM

Ok having read to the end of Sedley's article I think he acquits himself well and his whole article is in my view supportive of Epicurus. It's also in my view largely consistent with De Lacey.

I don't think this was the target of the article and so I don't criticize him for it, but it seems to me that Sedley dives deeper and deeper into detail without ever coming back at the end of the article to discuss why the whole issue is significant.

That is OUR task, to clarify and articulate the important lessons to be learned from the fight between Stoic and Epicurean methods of "logic."

And at the moment I am not inclined to think I need to change my assessment that DeLacey

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Aristotle regards empiricism as inadequate because he believes that observation can never give necessary connections between objects. In the absence of causal knowledge the empirical scientist must base his knowledge on a study of signs, and inferences from signs are not reliable except in cases where the inferences may be converted into valid syllogisms. He says in one place that a science of physiognomy would be possible only if an invariable correlation could be established between physical qualities and mental traits, for instance between large extremities and courage. In that case one

Thus the Epicureans were at war with those (Platonists, Aristotelians, Stoics) who held that inferences from signs (i.e., true opinions) are not reliable unless they can be stated into formal logically valid syllogisms. In other words, the ability to play games with words to make up a logically consistent assertion is not what establishes truth for us. Rather, its always the ability to judge the contours of truth by our canonical faculties is what establishes truth for us.

So the reverse of the Stoic position is actually the case and seems to be the position the Epicureans took: it is only when an opinion can be confirmed through repeated and reliable observations of the canonical faculties that something is established as true for us.

Post by "Godfrey" of August 26, 2021 at 9:04 PM

Cassius I think you've elucidated the subject better than either Sedley or the DeLaceys. You might have a future in this 😊👍

Post by “Cassius” of August 26, 2021 at 9:40 PM

Well thanks for the kind words, but I think a large part of the issue is that Sedley and De Lacey and most of the rest probably have a different goal than I do. They seem to be writing for each other in the Academic world, in which the people writing their books are expected to be familiar with the state of academic writing and be familiar with the arguments. So they end up chasing each other further and further down rabbit holes which are indeed worth exploring, but they aren't writing to try to focus on and to "popularize" the main take-home points of the philosophy to everyday people. Once they describe the details the academics think (and maybe rightly so) that their job is done. They aren't paid and they aren't claiming to be social reformers.

As a secondary factor I think there is a lot of pressure in Academia to toe the establishment line on the value of formal logic and to maintain respect for the core Greek authorities (of whom they don't number Epicurus, except to the extent they can force him into the Stoic mold with "absence of pain" analysis).

In all fairness to them they've built up a lot of good information, but it's long past time for people outside of academia to realize what the issues are and run with them. This issue of the role of "logic" is explosively counter-trend to the majority viewpoint, and is equal if not more serious than the views of religion and pleasure. In many ways a form of "atheism" is standard now in academia, and the academics are very familiar with unconventional views of pleasure as well. But I actually think that this "logic" analysis challenges the what they see as the real keys of their kingdom, so it doesn't get nearly as much notice as it should.

And of course as you're saying in your comments, it IS very dense and complex, so it takes some work to ferret out what's really going on here.

OK back to the topic because I want to compare my views with what others are seeing.

Post by “Cassius” of August 26, 2021 at 10:07 PM

Ok this is from the second article that Don linked so there's definitely a revised edition of the

The first critical edition of the papyrus containing this work of Philodemus (PHerc. 1065) was published by T. Gomperz, who significantly gave it the title *Philodem Über Induktions-schlüsse* (1865). The current standard edition is the text published by Phillip and Estelle Allen De Lacy, *On Methods of Inference* (1978). This is a revised version of an earlier edition (1941), now improved by the contributions of Marcello Gigante who, together with Francesca Longo Auricchio and Adele Tepezino Guerra, made an inspection of the papyrus with microscopic binoculars, allowing them to recover many previously unrecognized readings of the text.

Post by “Cassius” of August 26, 2021 at 10:10 PM

The length of the treatise is unknown, and the part of the text that has been preserved is limited to the concluding portion of the papyrus scroll. The original title of the treatise is a matter of debate, but based on a discovery made by Daniel Delattre (reported by Asmis 1996: 158 and n. 2) it seems more likely that the title should be *On Signs and Sign Inferences* (*Perì semeíon kai semeióseon*). Daniel Delattre has also discovered that this is likely to be the third book of the treatise (based on a Greek gamma that has been detected under the title written on the papyrus), and that the treatise contained at least one additional book, since the conclusion of the book that we possess promises a discussion of medical doctors and their ideas.

Post by “Cassius” of August 26, 2021 at 10:14 PM

I'm just a fountain of random points of interest tonight!

THIS is interesting in asserting that the enemy was not the Stoics but the Academics. I don't know that I have a dog in that fight (Stoics vs Academics) because I think it's important to see that they were all generally allied against Epicurus (not just the Stoics).

Academic philosophers (a hypothesis she had already suggested in 1984: 198), given that they aligned themselves against non-evident signs in general and especially against Epicurean inference by signs. As evidence in support of this hypothesis, Asmis mentions the criticisms against Epicurean inference launched by the Academic Cotta in Cicero's *De natura deorum*, which match the criticisms refuted in Philodemus's *On Signs*. According to Asmis, the Academic philosophers were in any case responsible for mobilizing a unified opposition against the Epicureans, drawing allies from various philosophical schools: 'I conclude, therefore, that the arguments against Epicurean induction in *On Signs* were shaped in the Academic school. It is plausible that Carneades first gave systematic form to these arguments. The Academic objections are indebted to the Stoics and others, just as the Epicurean answers are indebted to Stoics and others. It would not be at all surprising if Stoics such as Chrysippus also attacked Epicurean induction. But if they did, their arguments were reshaped by the Academics. The Academics may be seen as the master tacticians who led an army of opponents against the Epicureans. The troops under their command include Stoics, Empiricists, and others' (1996: 179).

Post by "Cassius" of August 26, 2021 at 10:35 PM

The logical form in which the semiotic inference is formulated is the paraconditional (*parasynemmenon*), 'Since p, q' or, in other words, 'since (*epei*) p, then q', which implies, unlike the simple conditional (*synemmenon*), the truth of 'p' (Burnyeat 1982: 218–224). According to Sedley (1982: 243), this formulation, typical of *On Signs*, is an improvement on the classic Stoic formula, in which the sign is the antecedent in a conditional statement of the type 'If p, then q', in which case it is not possible to include any indication regarding the truth of the antecedent, as it must be insofar as it is effectively functioning as a sign. In general this is an abbreviated form of the *modus ponens*, whose complete formulation is 'If the first, then the second; but the first; therefore, the second'.

As Elizabeth Asmis notes (1996: 157), it is interesting that in Epicurus there is no sort of argument which supports the conditional form of the inference. Two generations after Epicurus, Zeno of Sidon and his colleagues seem to formulate the inferential statement in the manner that we have just seen. According to Asmis this leads one to think that they had appropriated their opponents' definition of the sign.

The sign (*σημειον*) is that from which the inference begins, and

s by later
warpath

Post by "Cassius" of August 26, 2021 at 11:00 PM

This formulation here sounds reasonable to me, and I begin to get the strong feeling that Epicurus would have disapproved a lot of these arguments, as per the Elizabeth Asmis note just above. I am getting the feeling that a lot of these arguments are unwise and similar to Torquatus thinking that he needed an elaborate and abstract argument about the nature and role of pleasure. All of this "necessity" and "essentialism" argument does not seem to me

based on necessity between X and Y which the *qua* truths demand.

elow here is

At this point, we must consider the objection of Long (1988: 142–143, see also Asmis 1996: 164), who maintains that the Epicureans assigned a different, empirical sense to the *qua* truths, which is not the same as that used by their critics. According to Long, the Epicureans do not use formulations as 'insofar as such individuals are men', but rather something like 'insofar as the things familiar to us are of such a type'. This fact emerges quite clearly in the following passage from the treatise: 'When we say that since things familiar to us are of such a kind, things outside our experience are of that kind, we are judging that insofar as things familiar to us are of such a kind, something outside our experience is conjoined to them, as in the case of "since men familiar to us, insofar as they are men, are mortal, if there are men anywhere else they are mortal"' (XXX.24–32). In other words, the Epicureans relate the *qua* formula ('insofar as') not to the thing in general (e.g., 'man'), but to the thing in our experience. The Epicureans statement of the *qua* truth thus takes on

the following form: 'Insofar as Ks familiar to us are F'. In this way they avoid the trap of essentialism into which their critics want to push them. The Epicureans begin from the fact that mortality accompanies the men observed insofar as they are men, and conclude that all men insofar as they are men are mortal. In this way the conclusion is not presupposed by the premises, but is produced by the method of similarity.

Post by "Cassius" of August 26, 2021 at 11:16 PM

Additional Resource: [Asmis - Epicurus' Scientific Method](#) (Article on which her later book of the same name was based).

Also: According to the second link Don posted, this is a very important article, and corrects mistakes made by Barnes in Barnes' own article. But I am not sure it is going to be something we can find. Anyway, this is one I'd love to have, since i am almost as much a fan of AA Long as I am of David Sedley.

Long, A. A. (1988). Reply to Jonathan Barnes, 'Epicurean Signs'. In *Oxford Studies in Ancient Philosophy*, supp. vol., J. Annas (ed.), 135–144. Oxford: Oxford University Press.

Post by “Cassius” of August 26, 2021 at 11:17 PM

I've now read the two articles posted by Don and they have been very helpful so thank you Don! Now it's time for me to drop back and get some comments from others in here!

Post by “Godfrey” of March 15, 2022 at 8:05 PM

I have a very basic "big picture" question: where does this topic fit into an outline of Epicurean philosophy?

On the one hand it seems that it belongs with the Canon, but on the other hand, logic isn't part of the Canon as I understand it. The Stoics have Physics, Logic and Ethics; we have Physics, Canonic, Ethics (or Physics/Canonic, Ethics). I'm not even sure at the moment where these outlines came from.... Do they appear in ancient texts (Diogenes Laertius, I think?) or are they modern interpretations? Could it be that a proper EP outline is Physics/Canonic, Logic, Ethics? Are the basic outlines of EP and Stoicism actually the same, just with different ideas in each topic? Or is this a muddling of EP by later Epicureans who were arguing with the Stoics?

Wouldn't placing this topic of signs and methods of inference into the larger outline of the philosophy be a good first step toward developing an outline of Epicurean "logic"? I think it might be helpful in assisting us to remember why we're grappling with this difficult and rather distasteful 😬, but important, 😊 topic in the first place.

Post by “Joshua” of March 15, 2022 at 10:03 PM

We had a bit of a slog through this very question during the podcast recording on Sunday. I was 'off my game' Sunday morning...hopefully with Cassius and Martin engaged in the discussion we managed to produce something intelligible 🙄

I still haven't read anywhere near enough of David Sedley's work, so I won't be much help here either!

Post by “Cassius” of March 15, 2022 at 11:03 PM

Yes indeed Joshua is right but I am thinking of he was off his game I am sure my wandering in the topic contributed to it. I will get it edited into something coherent as soon as possible but in the meantime Godfrey I do think that a "position on the role of logic" (rather than logic itself) does fall under the "canonical" heading.

I presume you're reading other recent threads like the one by Eric and my goal is that we come up with a presentation on these issues understandable enough for the average junior high age student.

The physics gets combined with the logic I think mainly because a theory of how the senses work (including "images") is tied to physics so that's the intersection point.

That intersection is probably also a key to our answer on how speculative logical assertions must necessarily be given a secondary role to that which we derive from things that are perceptible, but that's the link that needs further work to articulate. WHY is that the case? Why should speculation without evidence be seen as a waste of time or even harmful or at least viewed with suspicion?

These are questions addressed by Lucretius in book 4 so we have some answers, but we need to draw them out and highlight them with greater force.

Post by “Godfrey” of March 16, 2022 at 12:53 AM

Quote from Cassius

I presume you're reading other recent threads like the one by Eric and my goal is that we come up with a presentation on these issues understandable enough for the average junior high age student.

You presume correctly!

Often the canon is tied to physics, which makes sense to me since the faculties are part of the material world. But the canon isn't logic. Or are you saying that logic belongs in the canon? I've understood logic, or reasoning, as a process that we use to evaluate our sensations, anticipations and feelings. Is logic/reasoning then "mental focusings"?

Googling "epistemology" gets:

Quote

"epistemology, **the philosophical study of the nature, origin, and limits of human knowledge**. The term is derived from the Greek epistēmē ("knowledge") and logos ("reason"), and accordingly the field is sometimes referred to as the theory of knowledge." *Encyclopedia Britannica*

It appears that this puts logic firmly in the canon. Does this make "the tripod of truth" into "the QuadroPod of truth"? Guess I have some reading to do.

Post by "Godfrey" of March 16, 2022 at 1:17 AM

Here's a link to a previous post:

Post

[Thoughts On The Alleged "Fourth Leg of the Canon"](#)

I don't have time for a long post but I wanted to start this topic with a couple of general thoughts which are prompted by our recent discussions of images in book four of Lucretius, plus the articles from [the Encyclopedia Brittanica](#) (thanks Nate) as to the development of skepticism within the Academy, as well as the Stoic/Academic interplay involving how the Stoics attempted to remain dogmatic. Let me particularly highlight this paragraph:

[...]

Now as to the Epicureans, here is the primary...



Cassius

May 3, 2021 at 8:49 AM

Post by “Joshua” of March 16, 2022 at 3:37 AM

My own suspicion is that the confusion here comes in because logic is rather 'slippery'. It is a very powerful tool of cognition. It is absolutely critical to the field of computer science:

Quote

A computer is a digital electronic machine that can be programmed to carry out sequences of arithmetic or logical operations (computation) automatically.

We know that it works. But that is a separate question to the one we're really asking: ***Is logic a source of direct knowledge?***

That's the question that it is difficult to get a hold on. Logic is amazingly flimsy stuff when it doesn't rest on something solid--which is to say, something *known*. When Thomas Aquinas set out to prove the existence of a god, he could not rest his proof on the evidence of his senses; his senses furnished no evidence of god. So he employed instead the twin vacuous pillars of faith and logic; his Five Ways to prove the existence of god do not stand up to even slight scrutiny, as some honest Christians will admit. He started with nothing, and logic took him nowhere fast.

Epicurus was neither strictly an empiricist, nor anything like a rationalist; but he was far closer to the former than to the latter, which is part of the reason he rejected geometry. This chart does a fair job, I think:

Between Rationalism and Empiricism

Empiricism

- Knowledge is based on experience and experimentation.
- Experimental science is the paradigm of knowledge.
- Experience and experiment rarely, if ever, produce certainty.
- Some empiricists believe that mathematics can be certain.

Rationalism

- Knowledge is based on the use of reason or logic.
- Mathematics is the paradigm of knowledge.
- Genuine knowledge is certain.
- Relation to experience. Experience does not reduce certainty thus, is at best second-class knowledge.

Always Learning

Brian Lobbedo@scholar.org

Philosophy of Physics

Post by “Cassius” of March 16, 2022 at 6:02 AM

[Quote from Godfrey](#)

. Or are you saying that logic belongs in the canon? I've understood logic, or reasoning, as a process that we use to evaluate our sensations, anticipations and feelings. Is logic/reasoning then "mental focusings"

I think Joshua's answer is the right track with the word "slippery."

What I am concluding is that the word "logic" is like the word "reason" in the way we use them colloquially.

From a technical point of view (I know Martin uses the term this way) "logic" has a very precise meaning, but both terms can be used colloquially to refer generally to a "manner of thinking," and I think this is where the confusion is arising.

Used colloquially there does seem indeed to be a "Stoic logic" as opposed to an Epicurean view of logic, and so the words "logic" and "reason" are not precise enough for our needs.

To me the key issue seems to be that to be considered persuasive any form of reasoning must be tied to premises that can be verified perceptually through the three canonical faculties. It seems to me that logical or reasoning constructions that are internally valid, but not tied to perceptual data, are being held by Epicurus to be in a category of their own and especially dangerous to practical living. Epicurus seems to be warning us to specifically identify this activity as uniquely threatening to sound principles of living. However it looks to me like we today are so conditioned against this by the arbitrariness and wishful thinking of religion, combined with a radical skepticism in which, because science is moving so fast that we have

come to accept the appearance that everything we understand today will be necessarily understood differently tomorrow. Therefore we have come to think that radical skepticism has forever won the philosophical battle, and that the worst sin is to ever consider anything to be certain.

So I think the challenge is that of avoiding the Frances Wright "I don't care" position and instead articulating in understandable form the areas that can and do change (practical or applied science, for lack of better term) vs a set of metaphysical assumptions that do not change (the universe as whole is eternal; death is the end of our unique consciousness; there are no "absolute" standards of the way to live / virtue; nature gives us only pleasure and pain as ultimate guides; maybe a few more).

These are not ethical positions but in fact "natural science" positions that have to be viewed as entitles to a special place in our thinking, a special place that gives them a status in which we regard them as inherently unchallengable by non-perception-based theorizing and speculation.

That's the best way I can articulate this at present.

Post by “Godfrey” of March 16, 2022 at 5:39 PM

For me, the first issue is to define what Epicurean "logic" is and where it fits into an outline. That would be necessary to teach the system to a junior high school student: to provide the complete, coherent system.

Secondly would be to contrast the Epicurean view to other views.

Rather than call it Epicurean logic, maybe "methods of inference" is a good term to use, per Philodemus.

As to placing "MOI" in an outline, it shouldn't be in the canon as it's not direct experience (as discussed in the thread linked to in post #48. But a current problem is that it's something of an afterthought (speaking for myself). One suggestion is:

Overview of Epicurean philosophy:

1. Physics

1A. Canonic

1B. Methods of Inference (dependent upon Canonic)

1C. Natural science (dependent upon Canonic and MOI)

2. Ethics (dependent upon Physics)

Post by “Cassius” of March 16, 2022 at 6:39 PM

[Quote from Godfrey](#)

s to placing "MOI" in an outline, it shouldn't be in the canon as it's not direct experience

Godfrey I am not sure this is a correct inference. The Canon would (I think) include discussion of the "methods of processing" of the data that comes through the canon. The raw data doesn't mean anything on its own, but I am not sure I would separate out the raw data from the immediate methods of processing it.

I am thinking that the problem with "logic" is the type of logic that doesn't ever connect to these three sets of data. The manner of processing the data correctly, however, might well be called "epicurean logic" or "epicurean reasoning." Not saying that definitely but I think it's a possibility

Post by “Godfrey” of March 16, 2022 at 7:39 PM

So, in outline:

Physics

Canonic

- the faculty of Sensations
- the faculty of Anticipations
- the faculty of Feelings
- the process of Epicurean reasoning

Ethics

Or are you saying this:

Physics

Canonic

- the faculty of Sensations, mediated by Epicurean reasoning
- the faculty of Anticipations, mediated by Epicurean reasoning
- the faculty of Feelings, mediated by Epicurean reasoning

Ethics

These outlines consider the Canon to encompass the entire Epicurean epistemology, which makes sense. I've been thinking of the Canon as restricted to faculties, and that it's a tripod, which doesn't allow for either reasoning or a fourth leg. Is this how DeWitt presents it? I don't remember.

To my understanding, the type of logic that doesn't connect to canonic data is not really a part of Epicurus' philosophy and doesn't belong in the outline.

Post by "Cassius" of March 16, 2022 at 7:47 PM

Yes I am leaning toward the second outline, and I agree with your last comment.

You used the word "mediated" - i might prefer something like "processed through"....

Also Godfrey I meant to type this earlier:

We need to look at the first half of Book 4 as to the processing of images, and how to deal with illusions. I think that gives us concrete examples of how the data from the senses has to be "processed" in order to form valid opinions, and that process is I think what we are talking about.

[Quote from Godfrey](#)

To my understanding, the type of logic that doesn't connect to canonic data is not really a part of Epicurus' philosophy and doesn't belong in the outline.

And to repeat - yes, i agree with that conclusion that it doesn't belong in the outline, any more than would "divine revelation." As to it being a part of Epicurean philosophy, it's a part only insofar as it is discussed as something to affirmatively reject.

Post by “Godfrey” of March 16, 2022 at 9:04 PM

Are the data from the canon "signs"? I would assume this to be the case; does that do anything to tie inferences or processing into the Canon? Sorry to be so daft about this, it's definitely not my strong suit.

BTW The Hellenistic Philosophers sections 15, 16, 17 and 18 have some pertinent texts. I plan to review these tomorrow.

Post by “Cassius” of March 8, 2024 at 8:12 AM

An email from Academia sending a link to the Manetti article reminded me of this thread. Skimming through it this morning i think one thing that is at least for me personally un-done is to find and post a link to the 1978 update of the DeLacy book. I rely on the appendix to the older edition a lot, so it would be good to locate a source for the "current" (now 40+ year old) edition.