

# Article: "Epicurean Induction and Atomism In Mathematics" - Michael Aristidou (2023)

Post by "Cassius" of August 15, 2025 at 7:19 AM

I was just sent a link to a newly-published article - ["Epicurean Induction and Atomism In Mathematics."](#) At the time I am posting this I have not had a chance to read more than the opening and closing paragraphs, but it appears to be a very useful article. Here's the opening paragraph:

## Quote

The Epicureans, in general, considered geometry and mathematics only for utility and practical purposes. They regarded abstract mathematics useless and they did not, overall, expect or encourage their members to do any mathematics beyond perhaps some very basic level. 2 (White 1989, pp. 297–298). There were, of course, some Epicureans quite knowledgeable in mathematics, such as Polyaenus, Philonides, Zeno and Demetrius. Also, the Epicureans did not have mathematics or logic among their primary philosophical interests or teachings. 3 (White 1989, pp. 297–298, Cicero 1914, p. 25). Their belief that all knowledge is empirical and the inductive logic that guided their philosophy, do not seem to align with some of the most important aspects of mathematics, such as abstraction, deduction and proof.

It immediately strikes me to ask, as we read this in more detail, whether this attitude toward Epicurus takes an overly negative view. It is one thing to think that Epicurus held dialectical logic and mathematics and geometry to be limited in what they are able to claim, and require that any claims they do make be validated by the senses, anticipations, and feelings. It is something very different, to take the position that the Epicureans had no interest in these topics whatsoever, or actively discouraged Epicurean students from studying them.

I suspect the truth to be more as Frances Wright writes in Chapter nine of her book:

## [Quote from A Few Days In Athens Chapter 9](#)

"But," said Leontium, "the young Corinthian may be curious to know the sentiments of our master, and his advice regarding the pursuit of the sciences and the liberal arts. I can readily perceive," addressing herself to Theon, "the origin of the two contradictory reports you have just mentioned. The first you would hear from the followers of Aristippus, who, though not acknowledging the name, follow the *tenets* of his philosophy, and have long been very numerous in our degenerate city. These, because

Epicurus recommends but a moderate culture of those arts, which by them are too often made the elegant incentives to licentious pleasure, accuse him of neglecting them altogether. The cynics, and other austere sects, who condemn all that ministers to the luxury, ease, or recreation of man, exaggerate his moderate use of these arts into a vicious encouragement of voluptuousness and effeminacy. You will perceive, therefore, that between the two reports lies the truth. Every innocent recreation is permitted in the garden. It is not poetry, but licentious poetry, that Epicurus condemns; not music, but voluptuous music; not painting, but licentious pictures; not dancing, but loose gestures. Yet thus he displeases alike the profligate and the austere; for these he is too moderate, and for those too severe. "With regard to the sciences, if it be said, that they are neglected among us, I do not say that our master, though himself versed in them, as in all other branches of knowledge, greatly recommends them to our study but that they are not unknown, let Polyoenus be evidence.

"He, one of the most amiable men of our school, and one most highly favored by our master, you must have heard mentioned throughout Greece as a profound geometrician."

"Yes," replied Theon, "but I have also heard, that since entering the garden, he has ceased to respect his science."

"I am not aware of that," said Leontium, "though I believe he no longer devotes to it all his time, and all his faculties. Epicurus called him from his diagrams, to open to him the secrets of physics, and the beauties of ethics; to show him the springs of human action, and lead him to the study of the human mind. He taught him, that any single study, however useful and noble in itself, was yet unworthy the entire employ of a curious and powerful intellect; that the man who pursued one line of knowledge, to the exclusion of others, though he should follow it up to its very head, would never be either learned or wise; that he who pursues knowledge, should think no branch of it unworthy attention; least of all, should he confine it to those which are unconnected with the business, and add nothing to the pleasures of life; that further not our acquaintance with ourselves, nor our fellows; that tend not to enlarge the sphere of our affections, to multiply our ideas and sensations, nor extend the scope of our inquiries. On this ground, he blamed the devotion of Polyoenus to a science that leads to other truths than those of virtue, to other study than that of man."

"I am obliged to you for the explanation," said Theon; "not because I could any longer have given credit to the absurd reports of your master's enemies; but because, whatever opens to me the character and opinions of such a man, interests and improves me."

Link to full article:

<https://www.athensjournals.gr/philosophy/2023-2-2-3-Aristidou.pdf>

<https://www.epicureanfriends.com/thread/4676-article-epicurean-induction-and-atomism-in-mathematics-michael-aristidou-2023/?postID=36747#post36747>