

Epicurean Physics and Canonics at Three Levels of Reality

Post by “Joshua” of December 3, 2025 at 2:02 PM

As part of our ongoing preparation for the podcast's return to Lucretius in late 2025/early 2026, I've been thinking about new ways to explain the core concepts efficiently. This is one recent idea I've been turning over in my head to that end.

Middle World

In a [TED Talk](#) delivered in 2005, the evolutionary biologist and ethologist [Richard Dawkins](#) explored the ways in which humans understand nature at three different levels; first, at the microscopic level of atoms, and of microorganisms for whom surface tension is a more significant force than gravity. Second, the '[Middle World](#)' that exists for us at the human level; a level in which human sense perception, and the human sense of the passage of time are dominant factors in coloring our impression and understanding of nature. Third, at the grandest scale of galaxies, of fathomless space, and of cosmic timescales.

I think a similar model of the human perception, experience, knowledge, and intimation of nature can be useful in the study of Epicurean physics. In the Epicurean view, this Middle World is defined by the limits of what we can perceive with our senses. When we venture into the lower or higher levels of reality, it becomes apparent that a veil has fallen over our eyes, and that the methods by which we attempt to penetrate that veil must necessarily be limited, too. The procedure is to reason from the known to the unknown, as Lucretius does when he suggests that space is boundless [[I, line 968](#)]

Quote

Again if for the moment all existing space be held to be bounded, supposing a man runs forward to its outside borders, and stands on the utmost verge and then throws a winged javelin, do you choose that when hurled with vigorous force it shall advance to the point to which it has been sent and fly to a distance, or do you decide that something can get in its way and stop it? For you must admit and adopt one of the two suppositions; either of which shuts you out from all escape and compels you to grant that the universe stretches without end. For whether there is something to get in its way and prevent its coming whither it was sent and placing itself in the point intended, or whether it is carried forward, in either case it has not started from the end. In this way I will go on and, wherever you have placed the outside borders, I will ask what then becomes of the javelin.

And the same procedure is at work in his investigation of the lower level of reality; for how can we be sure that these infinitesimal seeds of things actually exist? The answer is that while the atom itself is not individually perceptible by our senses, the movements of those atoms leave traces all over our Middle World. Exam the traces, and you will find evidence of the atoms [1, line 311]

Quote

Nay more, as the sun's year rolls round again and again, the ring on the finger becomes thin beneath by wearing, the fall of dripping water hollows the stone, the bent iron ploughshare secretly grows smaller in the fields, and we see the paved stone streets worn away by the feet of the multitude; again, by the city-gates the brazen statues reveal that their right hands are wearing thin through the touch of those who greet them ever and again as they pass upon their way. All these things then we see grow less, as they are rubbed away: yet what particles leave them at each moment, the envious nature of our sight has shut us out from seeing.

Gradations Within Middle World

If this middle level of reality is bounded by the limits of what

the envious nature of our sight has shut us out from seeing,

it is nevertheless apparent that not everything in Middle World is equally perceptible to us. And while things immediately to hand can be examined closely, thoroughly, and minutely, other things in Middle World are perceptible only at a glance, or at a far remove. Epicurus describes the problem in his *Letter to Pythocles*;

Quote

Now all goes on without disturbance as far as regards each of those things which may be explained in several ways so as to harmonize with what we perceive, when one admits, as we are bound to do, probable theories about them. But when one accepts one theory and rejects another which harmonizes as well with the phenomenon, it is obvious that he altogether leaves the path of scientific inquiry and has recourse to myth. Now we can obtain indications of what happens above from some of the phenomena on earth: for we can observe how they come to pass, though we cannot observe the phenomena in the sky: for they may be produced in several ways.

Notice the old procedure at work again; even though the phenomena that appear in the sky do exist to our senses, we cannot take them in hand and scrutinize them closely. So we must once again reason from the known to the unknown, from the familiar to the unfamiliar. However, Epicurus also adds a second procedure here, which he calls the 'method of manifold causes', and to which he opposes the faulty and unreliable 'method of the single cause'. When we do not know the cause of a given phenomena, like lightning for example, it would be wrong to

pretend that we do know it. The method of manifold causes is a tool of Epistemological restraint; we can speculate about one or more possible causes, but we do not assert a thing to be the cause where we do not have knowledge.

In Reality?

Epicurus was not at all the first to notice these varying levels of perception, experience, knowledge, and understanding. But he was innovative in assigning *reality as such* to all levels. Some of his predecessors and contemporaries rejected sense perception entirely, some complained of the troublesome flux of matter through space and time and thought that such constant change made knowledge impossible, and some held that both time and motion were themselves illusory.

For Socrates, Middle World was a distortion and a lie, and the object of philosophy was to mentally transcend the world of the flickering shadows of the lie and achieve perfect clarity of understanding in the realm of pure being, where only the forms themselves were real and eternal. In a surviving fragment, Democritus seems to have dreamt not of an ascent but of a descent, down to the level of the atoms;

By convention sweet, by convention bitter, by convention hot, by convention cold, by convention color; in reality, atoms and void.

Cyril Bailey summarizes the contrasting Epicurean view in his book *The Greek Atomists and Epicurus*, [page 293](#);

Quote

But this was by no means Epicurus' view: the compound body to him was not a mere aggregate, but a new entity, an 'organism' almost (σύστημα), or, as Lucretius calls it again and again, a *concilium*. In the organism of the whole the atoms did collectively acquire new properties and characteristics which as detached individuals they could never possess: no number of independent atoms could have colour, but unite them in the new entity of the whole, and it acquired colour. The idea is important and fruitful and we shall meet it again in the Epicurean kinetics and psychology. Moreover this whole is a reality, not a delusion: its reality for sense is as great as the reality of the atoms for thought: it is directly grasped by sense-perception, as the atoms are by 'mental apprehension'. And this carries with it the reality of its qualities: indeed, it is by the perception of its qualities that a thing's existence is known. To argue then that no quality which is not possessed by the individual atoms is 'real' in the compound, is to misunderstand fundamentally the Epicurean position. **There are two worlds, or rather two departments of the same world, the one known by sense, the other by 'mental apprehension'; both are equally real, and in passing from the one to the other, matter acquires new qualities.**