

## *Yx28 – Clerical Quackery 8 – Physics vs. Metaphysics in Ancient Greece – 4 – Epicureans versus Stoics*

This is the 28<sup>th</sup> in a series of posts dealing with what I call “the God Lie”, the 8<sup>th</sup> in a subseries dealing with “Clerical Quackery”, and the 4<sup>th</sup> in the sub-subseries (!) dealing with “Physics vs. Metaphysics in Ancient Greece”. In case any readers have been trying to follow this series of posts and are beginning to wonder about its direction, it might be useful if I repeat that my reason for reviewing ideas from ancient Greece was (and still is!) to show how some of the silly, metaphysical ideas of the Greeks (e.g., Plato’s) were subsequently incorporated into the “holy books” of the Jews, Christians, and Arabs, which then went on to pollute the minds of a substantial fraction of all people currently in the world.

For this fourth and final post in this ridiculously brief review of skirmishes and battles that occurred in ancient Greece in the war between science and religion, I want to at least outline the culmination of clashes between those who tried to develop a naturalistic (or materialistic) worldview and those who clung to a supernatural (or idealistic) worldview. This culmination was between the Epicureans (who began to develop a naturalistic worldview) and the Stoics (who clung to supernaturalism).

Now, as readers can easily confirm, an enormous amount of information is available on the internet (and elsewhere) about the Epicureans and the Stoics. For example, at Google the word ‘Epicurean’ yields about 1.8 million hits and ‘Stoic’ yields about 3.2 million hits! Consequently, in this post, the only possibly unique and maybe useful contributions that I can make (even though I’m not a historian) are comments on Epicureanism and Stoicism as viewed by a physicist who is convinced that the god idea is ridiculous.

As a result, I’ll devote more space to the naturalistic worldview of the Epicureans (because it relied on halting scientific advances in ancient Greece and rejected most of the then-current god ideas) and I’ll devote less space to the supernaturalistic worldview of the Stoics (because, although it relied on development in Aristotelian logic, the Stoics unfortunately based their deductions on faulty premisses of prehistoric mysticism, just as do “educated” religious people to this day).

For readers who seek additional information about the Epicureans and Stoics, perhaps it would be useful for me to mention some sources that I found particularly valuable. For example, an excellent, succinct, and easy-to-read summary is at the webpage<sup>1</sup> created by Dr. C. George Boeree. For more in-depth analyses, an excellent website<sup>2</sup> on Epicureanism is the one created by Vincent Cooke; another is Epicurus.info, apparently created by Erik Anderson.<sup>3</sup> For thorough information about the Stoics, there is the always-illuminating *Stanford Encyclopedia of Philosophy*.<sup>4</sup> For still more complete information, there is the amazing, 889-page, 1939 online-book<sup>5</sup> entitled *The Life of Greece* by Will Durant.

In Durant's book I found only one serious error, one glaring omission, and one obnoxious bias. The error deals with his description of Stoical contributions to logic. Stoicism developed through extensions to Aristotelian logic, first by Zeno of Citium (c.334–c.262 BCE), the founder of Stoicism [and note the distinction between Zeno of (the Italian city of) Elea, famous for his paradoxes versus the founder of Stoicism, Zeno of Citium (i.e., Cyprus)] and then extended further by Zeno of Citium's successors, Cleanthes (c.330–c.230 BCE) and especially Chrysippus (c.280–c.207 BCE). On p. 749 of his book, Durant states:

It was probably Chrysippus who divided the Stoic system into logic, natural science, and ethics. Zeno and his successors prided themselves on their contributions to logical theory, but the streams of ink that flowed from them on this subject have left no appreciable residue of enlightenment or use.

Maybe that seemed to be the case when Durant wrote his 1939 book, but subsequently, as described by Keith Devlin at a webpage of the Mathematical Association of America:<sup>6</sup>

What Zeno of Citium actually did was found the Stoic school of logic. Though modern mathematical logic is popularly credited as having its beginnings in the syllogistic logic of Aristotle, most of the fundamental notions of contemporary propositional logic began not with Aristotle but with Zeno and the Stoics...

---

<sup>1</sup> At <http://webspace.ship.edu/cgboer/latergreeks.html>.

<sup>2</sup> At <http://www.epicurus.net/index.html>.

<sup>3</sup> At <http://www.epicurus.info/index.php>.

<sup>4</sup> At <http://plato.stanford.edu/entries/stoicism/>.

<sup>5</sup> At <http://www.scribd.com/doc/7351192/Will-Durant-The-story-of-civilization02-The-Life-of-Greece>.

<sup>6</sup> At [http://www.maa.org/devlin/devlin\\_june.html](http://www.maa.org/devlin/devlin_june.html).

By singling out propositions as the building blocks for reasoning and identifying some of the abstract patterns involved in reasoning with propositions... the Stoics' contribution to logic was a major intellectual achievement. Together with Aristotelian logic, it paved the way for all subsequent work in logic, right up to the present day, and led to much of twentieth century logic and computer science.

As for the one glaring omission and one obnoxious bias that I found in Durant's book, I'll get to them later in this post. First, I'll try to at least sketch the philosophy of both the Epicureans and the Stoics.

## PHILOSOPHICAL OVERVIEW

As I argued in an earlier chapter (Y2), the fundamental step in the development of any philosophy is the decision about how to gain knowledge, i.e., one's epistemology (from the Greek word for 'knowledge', *epistēmē*). Following one's epistemological choices, one then develops a worldview, from which follows other aspects of one's philosophy, such as ethics. In this post, therefore, I'll try to organize my brief reviews of both the Epicureans and Stoics under the headings: Epistemology, Worldview, and Ethics.

For both the Epicureans and Stoics (and for that matter, for all naturalists and supernaturalists), their epistemologies start from making observations and applying reasoning. Usually, naturalists are more skeptical than supernaturalists, more careful about their generalizations, hold them with less fervor, and therefore are less inclined to accept deductions from their generalizations than do supernaturalists, whom naturalists sometimes deride with the term "damnable deducers". In general, as I've argued in Chapter T1 dealing with "Truth", supernaturalists foolishly conclude that they know "the truth", whereas naturalists generally agree with the Greek philosopher Xenophanes (c.570–c.480 BCE): "All is but a woven web of guesses."

Beyond those similarities (of observing and reasoning) and divergences (of the credence they give to their deductions), the epistemologies of the two groups separate further. Thus, the critical, additional step taken by religious people (i.e., idealistic people with a supernaturalistic worldview) to gain alleged knowledge is generally chosen from among the options crudely illustrated with the following partial list.

\* Go to other chapters *via*

- Throughout history, the epistemology of devout Hindus, Jews, and Muslims has relied on authoritarianism: they accept as knowledge – they “believe” as “true” – whatever their cultures (especially their fathers) say is “true”.
- Although Christianity began by adopting authoritarianism (as I plan to illustrate in a later post in this series), with the claimed “authority” being “prophecies” contained in the Old Testament (OT) plus “miracles” allegedly performed by the “savior” Jesus, yet the epistemology of the majority of “modern”, simpleton Christians (as well as similar Muslims) is the (logical fallacy known as the) Pleasure Principle: if it feels good, it must be “true” – and undoubtedly it feels good to such simpletons to “believe” that they’ll live forever in paradise.
- For less simplistic Christians (as well as some Muslims and some religious Jews), their epistemology continues to rely on reason or logic, which superficially seems commendable, but their logic is based on unfounded premisses (such as Aristotle’s incorrect premiss that a “creator god” was needed as a “first cause”, e.g., of motion).

Below, I’ll sketch a little of the history of the epistemology and resulting philosophies of the Stoics and Epicureans, but before doing so, perhaps the following overview might be useful.

The Stoics continued using the epistemology of all prehistoric, religious people. The data from which they started was the obvious: amazingly complicated and perplexing aspects of nature, on Earth and in the heavens. The reasoning they applied (to obtain their inferences) was by analogy and seemed obvious (and still seems obvious to all religious people): whereas known things and processes are caused by some agent, there must be some agent (some god or other) who is the cause of natural things and processes. From that sweeping generalization (made by all religious people) the rest followed by deduction: given that god (or gods) exist, then [whatever]. As a result, the Stoics were (and all religious people are) primarily “deducers”, deducing all details from their first, sweeping, unverifiable premiss.

The Epicureans, on the other hand, were more skeptical, less confident that they possessed “the truth”. As Epicurus wrote in his *Letter to Pythocles*:<sup>7</sup>

It is unwise to desire what is impossible: to proclaim a uniform theory about everything... Rather than committing to explanations based on unwarranted assumptions and dogma, we may only theorize as far as the phenomena allow. For our life has no need of unreasonable and groundless opinions; our one need is untroubled existence.

---

<sup>7</sup> Available, e.g., at <http://www.epicurus.info/etexts/Lives.html>.

So, if one is satisfied (as he should be) with that which is shown to be less than certain, it is no cause for concern that things can be explained in more than one way, consistent with the evidence. But if one accepts one explanation and rejects another that is equally consistent with the evidence, he is obviously rejecting science altogether and taking refuge in myth.

If asked, most modern physicists would probably respond similarly! But be that as it is, the Epicureans were therefore less dogmatic: for them (and for all naturalists), the supernaturalists' "solution" is worse than useless.

For simpletons, the supernaturalists' "solution" obviously seems simple, but for others, it causes more perplexing questions than it proposes to answer. Thus, when told that God created everything, even children ask: "But, where did God come from?" Similarly, as relayed by the philosopher David Hume in his 1757 book *The Natural History of Religion*:

We are told by Sextus Empiricus that Epicurus, when a boy, reading with his preceptor these verses of Hesiod,

Eldest of beings, Chaos first arose;  
Next Earth, wide-stretch'd, the seat of all

the young scholar first betrayed his inquisitive genius, by asking, "And Chaos whence?" but was told by his preceptor that he must have recourse to the philosophers for a solution of such questions. And from this hint Epicurus left philology and all other studies, in order to betake himself to that science, whence alone he expected satisfaction with regard to these sublime subjects.

On the other hand, clerics (rather than "preceptors") have always made themselves available to answer all such questions about their god(s) – if the simpletons will just do as the clerics say, which of course includes paying the clerics, so they can continue their parasitic existence promoting their quackery.

For naturalists, maybe unfortunately but maybe not, we're generally stuck with uncertainties and unknowns. Illustrative are the following comments<sup>8</sup> by Richard Feynman, co-winner of the 1965 Nobel Prize for Physics:

The scientist has a lot of experience with ignorance and doubt and uncertainty, and this experience is of very great importance, I think. When a scientist doesn't know

---

<sup>8</sup> From [http://en.wikiquote.org/wiki/Richard\\_Feynman](http://en.wikiquote.org/wiki/Richard_Feynman).

the answer to a problem, he is ignorant. When he has a hunch as to what the result is, he is uncertain. And when he is pretty damn sure of what the result is going to be, he is still in some doubt...

We have found it of paramount importance that in order to progress, we must recognize our ignorance and leave room for doubt. Scientific knowledge is a body of statements of varying degrees of certainty – some most unsure, some nearly sure, but none absolutely certain...

...science [is] a method of finding things out. This method is based on the principle that observation is the judge of whether something is so or not. All other aspects and characteristics of science can be understood directly when we understand that observation is the ultimate and final judge...

Agreeing with Feynman, I'll now turn, first, to the “supernaturalistic philosophy” known as Stoicism and, then, to the “naturalistic philosophy” known as Epicurism.

## STOICISM

### The Stoics' Worldview

Given their epistemological choices to rely on observations of nature, on reason, and on the authority of parents, clerics, and their myths, the Stoics' worldview was a continuation of “traditional”, supernatural nonsense, as first documented in ancient Greece by Homer and Hesiod. The Stoics, however, added “refinements” that they convinced themselves were rational. Admittedly, such refinements were usually logical, but they were also unsound, because they were based on unsubstantiated premisses about the existences of gods and immortal souls.

The first ancient Greek who apparently convinced himself and his followers that a supernatural worldview was rational seems to have been Pythagoras (c.580–500 BCE), who (as I mentioned in an earlier post in this subseries) seems to have acquired his ideas from other cultures (including the Egyptians, probably the Zoroastrians, and possibly the Hindus). Later Greek mystics who lived among or were significantly influenced by Greek settlers in Italy compounded Pythagoras' errors, building rational sandcastles in their minds, including:

- Parmenides (c.515–c.450 BCE) who speculated, “**all is one**” and deduced that “**change is impossible**”, which led to the paradoxes mentioned in the previous post that were promoted by Zeno of Elea (c.490–c.430 BCE)

- Empedocles (c.490–430 BCE), who speculated that “when, released from the body, you ascend to the free ether; you will become an immortal god, escaping death”, and of course
- Plato (c.428–c.348 BCE), whose wild speculations were unfortunately incorporated into the foundations of not only Stoicism but also the data-less speculations known as Christianity and Islam.

In turn, Plato’s mysticism was apparently derived from many sources, including initiation in one or more “mystery religions” (Egyptian or Pythagorean or Eleusinian).

As I also mentioned in an earlier post, Plato wrote that he wouldn’t reveal “the Mysteries” in his writings. His writings suggest, however, that he incorporated ideas from many earlier mystics, including

- From Pythagoras about “ideal forms”,
- From Anaximenes (fl. 585 BCE), who speculated<sup>9</sup> that “the first principle” wasn’t water but air “and as the soul, which is air, holds us together, so the air, or *pneuma*, of the world is its pervasive spirit, breath, or God”,
- From Heraclitus (c.535–c.475 BCE) about the *Logos* or “reason incorporated into the fabric of the universe”, and
- From Empedocles (c.490–430 BCE) about humans possessing immortal souls.

In particular, it appears that it was Anaximenes’ idea that led Plato to propose that the world (or the universe or nature) also had a soul, “the world soul” (or “the universal soul”). Then later, the fundamental dogma adopted by the Stoics was that Nature (i.e., the entire universe) was “alive”, with a soul, and was god. As examples:

The universe itself is god and the universal outpouring of its soul; it is this same world’s guiding principle, operating in mind and reason, together with the common nature of things and the totality which embraces all existence...

[Chrysippus (c.280–c.207 BCE)]

Constantly regard the universe as one living being, having one substance and one soul; and observe how all things have reference to one perception, the perception of this one living being; and how all things act with one movement; and how all things

---

<sup>9</sup> From <http://www.scribd.com/doc/7351192/Will-Durant-Thestoryofcivilization02-The-Life-of-Greece>.

are the cooperating causes of all things that exist; observe too the continuous spinning of the thread and the structure of the web.

[Marcus Aurelius, Emperor of Rome from 161–180 CE]

Having adopted that, in general, God was the universe and that, in particular, God was the universe's "guiding principle" and its "mind and reason" (i.e., Heraclitus' *Logos*, which later became the Christians' *Word* and earlier was the Zoroastrians' *Asha*, the Egyptians' *Ma'at*, the Hindus' *Ritam*, and maybe the Sumerians' *Mummu*), the Stoics proceeded to define their ethics, i.e., how they should live consistent with their worldview. The goal they adopted was that humans should live their lives with their souls "in harmony" with the world-soul (i.e., God or Nature). In the process of developing their goal, they apparently relied on some of Aristotle's errors, which because the result is fundamental for the ethics of both Stoics and Epicureans, I should at least outline.

### *Aristotle's Influence*

In developing their ethics, the Stoics unfortunately accepted Aristotle's analysis of the "good life". I used the word "unfortunately" and, earlier in this post, I mentioned a "glaring omission" in Durant's book *The Life of Greece*, because in his analysis of the "good life", Aristotle made major mistakes, which the Stoics (and for that matter, also the Epicureans) failed to notice and which Durant failed to mention. In earlier chapters (especially, Chapters **E** and **H1**), I described these Aristotelian errors in considerable detail; here, I'll try to outline his analysis and errors in just a few paragraphs.

Aristotle's errors in his analysis of "the good life" appear in what is otherwise, I think, the best of his books: *Nicomachean Ethics*.<sup>10</sup> In it, Aristotle abandons his authoritarianism (mentioned in the previous post), starting his book with the humble and amazingly perceptive statement (Bk. 1, Pt. 3):

Our discussion will be adequate if it has as much clearness as the subject-matter admits of, for precision is not to be sought for alike in all discussions, any more than in all the products of the crafts. Now fine and just actions, which political science investigates, admit of much variety and fluctuation of opinion, so that they may be thought to exist only by convention, and not by nature... We must be content, then, in speaking of such subjects and with such premisses to indicate the truth roughly and in outline, and in speaking about things which are only for the most part true and with premisses of the same kind to reach conclusions that are no better. In the same spirit,

---

<sup>10</sup> Available at <http://classics.mit.edu/Aristotle/nicomachaen.mb.txt>.

therefore, should each type of statement be received; for it is the mark of an educated man to look for precision in each class of things just so far as the nature of the subject admits...

As for the goal of his book, to me it's amazing that, while the Jews, Persians, Egyptians, Hindus, and other religious people were mired in their desire to placate their god (or gods), Aristotle had the presence of mind (and maybe even the audacity!) to wonder about the best way to achieve happiness! And actually, I suspect that Aristotle felt free to explore such a question, because he had concluded (as I outlined in the previous post) that the creator God (who set things in the universe in motion) was subsequently busy "contemplating his own navel", uninterested in the affairs of mere people (which is viewpoint that Epicurus and later Epicureans also adopted). In fact, the essence of that refrain has reverberated through subsequent millennia (and no doubt will continue): **one's worldview dictates one's outlook on life.**

But generalizations aside for now, Aristotle specifies his goal for *Nichomachean Ethics* as follows (Bk. I, Pts. 1, 2, & 4):

Every art and every inquiry, and similarly every action and pursuit, is thought [especially by Socrates and Plato!] to aim at some good; and for this reason the good has rightly been declared to be that at which all things aim...

If, then, there is some end of the things we do, which we desire for its own sake (everything else being desired for the sake of this), and if we do not choose everything for the sake of something else (for at that rate the process would go on to infinity, so that our desire would be empty and vain), clearly this must be the good and the chief good. Will not the knowledge of it, then, have a great influence on life? Shall we not, like archers who have a mark to aim at, be more likely to hit upon what is right? If so, we must try, in outline at least, to determine what it is...

Therefore, if there is only one final end, this will be what we are seeking, and if there are more than one, the most final of these will be what we are seeking. Now we call that which is in itself worthy of pursuit more final than that which is worthy of pursuit for the sake of something else, and that which is never desirable for the sake of something else more final than the things that are desirable both in themselves and for the sake of that other thing, and therefore we call final without qualification that which is always desirable in itself and never for the sake of something else.

Now such a thing *happiness*, above all else, is held to be; for this we choose always for itself and never for the sake of something else, but honor, pleasure, reason, and every virtue we choose indeed for themselves (for if nothing resulted from them we should still choose each of them), but we choose them also for the sake of happiness,

judging that by means of them we shall be happy. Happiness, on the other hand, no one chooses for the sake of these, nor, in general, for anything other than itself.

What an astoundingly brilliant analysis – and all the more so, because in hindsight, it's totally obvious!

In his 1964 book *An Atheist's Values*, however, the philosopher Richard Robinson (1902–96) disagrees:<sup>11</sup>

If you go as far as Aristotle, and demand a good that is a pure end and in no way also a means, you are demanding an impossibility, and will be left with no good at all. Aristotle thought he was left with *happiness*, which, he said, is sought always for its own sake and never as a means to something else. But happiness is often sought as a means to something else. The manager of a factory tries to make the workers happy in order to get greater production. The politician tries to make the voters happy in order to stay in power. A man may try to make himself happy in order to make himself more efficient, or more conscientious, or in order to make his family happier. Everything whatever logically could be sought by someone as a means to something else. And it seems very probable that everything that is sought by anybody is sought by somebody as a means to something else. And, if that is so, Aristotle's good is non-existent.

I would, however, disagree with Robinson: in his examples of the factory manager and politician, Robinson already suggests that what they sought was their own happiness (*via* increased factory production and political power, respectively) and in his example of a man seeking to be more efficient, more conscientious, or to make his family happier, Robinson fails to address the obvious question about why the man would seek such, if not for his own, perceived, greater happiness.

In any case, returning to Aristotle: he unfortunately next started down an unproductive path, beginning with his (I, 7):

Presumably, however, to say that *happiness* is the chief good seems a platitude, and a clearer account of what it is still desired. This might perhaps be given, if we could first ascertain the function of man.

That step, seeking to “ascertain the function of man”, started Aristotle down a path that has led literally billions of religious people to lose control of their lives (to their clerics).

---

<sup>11</sup> From <http://www.scribd.com/doc/11393708/An-Atheists-Values-1964-by-Richard-Robinson-19021996>.

Aristotle's inquiry about "the function of man" is equivalent to asking: "What's the purpose of life?" It fails to recognize the obvious, namely (as I've argued in Chapter P1):<sup>12</sup> *The purpose of life is to live!*

In addition and simultaneously, Aristotle analysis contains the fatal error of inadequately appreciating what *happiness* is – a somewhat surprising error, given that he was usually so careful (pedantically so!) about the meaning of words. In particular (as I argued in the chapter dealing with happiness, viz., H1),<sup>13</sup> with Aristotle's almost exclusive focus on (left-brain) analysis, he failed to appreciate that 'happiness' is a (right-brain) emotion – an emotion (a right-brain synthesis) informing us of progress that we're making (or think that we're making) toward our goals.

For example, if you conclude that you're making progress understanding something (such as the concept of *happiness!*), then you'll feel some amount of happiness, and even if you reach the ridiculous conclusion that you're making progress toward the totally imaginary goal of living forever in paradise with God or Allah (e.g., by killing an abortion-clinic doctor or by hijacking an airplane and killing thousands of people), then again you'll be happy: crazy, mind you, but happily so.

Aristotle's next major error was in his identification of the "function of man". In an extensive analysis he sought to understand the "proper function of man", examining what was "virtuous" for humans, defining 'virtue' to be what is consistent with one's "nature" (I, 7):

*If happiness is activity in accordance with virtue, it is reasonable that it should be in accordance with the highest virtue; and this will be that of the best thing in us... That which is proper to each thing is by nature best and most pleasant for each thing; for man, therefore, the life according to reason is best and pleasantest, since reason more than anything else is man. This life [according to reason], therefore, is also the happiest...*

The silliness of such a conclusion is easy to see if the reader will consider which would make you happier: learning another proof in, say, geometry, or learning that a certain someone loves you as much as you love her or him! Aristotle couldn't recover from such errors, nor could the Stoics, who followed him down the same 'stoical' (emotionless) path.

---

<sup>12</sup> At [http://zenofzero.net/docs/P01\\_The\\_Purpose\\_of\\_Life.pdf](http://zenofzero.net/docs/P01_The_Purpose_of_Life.pdf).

<sup>13</sup> At <http://zenofzero.net/docs/Happiness.pdf>.

## Stoical Ethics

The Stoics' epistemological mistakes (relying on reasoning from unsubstantiated premisses rather than relying on evidence), their resultant speculative worldview (of a universal soul, whom they called God or Zeus or Nature), and their unfortunate decision to accept Aristotle's analysis that life according to reason was the happiest, led them to pursue what they considered to be "virtue" with fanatical resolve. Illustrative are the following quotations from probably the most famous book by a Stoic, *The Discourses* by Epictetus (50–138 CE).<sup>14</sup> I've organized the quotations by showing links to ideas from earlier mystics.

### *Links to Socrates' rejection of other people's opinions:*

For what do you think? Do you think that, if Socrates had wished to preserve externals, he would have come forward and said: "Anytus and Meletus can certainly kill me, but to harm me they are not able?" Was he so foolish as not to see that this way leads not to the preservation of life and fortune, but to another end? What is the reason, then, that he takes no account of his adversaries, and even irritates them? [*The Discourses* by Epictetus, II, 2]

### *Links to Pythagoras' "Reason is immortal" and Plato's immortal souls:*

This is the true athlete, the man who exercises himself against such appearances. Stay, wretch, do not be carried away. Great is the combat, divine is the work; it is for kingship, for freedom, for happiness, for freedom from perturbation. Remember God: call on him as a helper and protector, as men at sea call on the Dioscuri in a storm. For what is a greater storm than that which comes from appearances which are violent and drive away the reason? For the storm itself, what else is it but an appearance? For take away the fear of death, and suppose as many thunders and lightnings as you please, and you will know what calm and serenity there is in the ruling faculty. [II, 18]

### *Links to Diogenes the Cynic's idea of freedom:*

So Diogenes says that there is one way to freedom, and that is to die content. And he writes to the Persian king, "You cannot enslave the Athenian state any more than you can enslave fishes." "How is that? Cannot I catch them?" "If you catch them," says Diogenes, "they will immediately leave you, as fishes do; for if you catch a fish, it dies; and if these men that are caught shall die, of what use to you is the preparation for war?"...

---

<sup>14</sup> Available at <http://classics.mit.edu/Epictetus/discourses.html>.

Well then let us recapitulate the things which have been agreed on. The man who is not under restraint is free, to whom things are exactly in that state in which he wishes them to be; but he who can be restrained or compelled or hindered, or thrown into any circumstances against his will, is a slave. But who is free from restraint? He who desires nothing that belongs to others. And what are the things which belong to others? Those which are not in our power either to have or not to have, or to have of a certain kind or in a certain manner. Therefore [one's] body belongs to another, the parts of the body belong to another, possession belongs to another. If, then, you are attached to any of these things as your own, you will pay the penalty which it is proper for him to pay who desires what belongs to another...

Therefore see what Diogenes himself says and writes: "For this reason," he says, "Diogenes, it is in your power to speak both with the King of the Persians and with Archidamus the king of the Lacedaemonians, as you please." Was it because he was born of free parents? I suppose all the Athenians and all the Lacedaemonians, because they were born of slaves, could not talk with them as they wished, but feared and paid court to them. Why then does he say that it is in his power? "Because I do not consider the poor body to be my own, because I want nothing, because law is everything to me, and nothing else is." These were the things which permitted him to be free... for freedom is acquired not by the full possession of the things which are desired, but by removing the desire. [IV, 1]

### *Links to the founder of Stoicism, Zeno of Citium:*

What, then, is the material of the philosopher? Is it a cloak? No, but reason. What is his end? Is it to wear a cloak? No, but to possess the reason in a right state. Of what kind are his theorems? Are they those about the way in which the beard becomes great or the hair long? No, but rather what Zeno says, to know the elements of reason, what kind of a thing each of them is, and how they are fitted to one another, and what things are consequent upon them.

All stoical ideas were, however, not so fanatical as suggested by the above quotations from Epictetus, who seemed to be willing to almost nonchalantly give up his arm or his leg or even his life to anyone who would make a claim on them! As illustrations of more reasonable opinions (and as a prelude to Christianity), the Stoics promoted the brotherhood of mankind, e.g.,

We are members of one great body. Nature planted in us a mutual love, and fitted us for a social life. We must consider that we were born for the good of the whole.  
[Seneca the Younger, 4–65 CE]

The universe is but one great city, full of beloved ones, divine and human, by nature endeared to each other. [Epictetus, 50–138 CE]

Moreover, by the time of the stoic Roman Emperor Marcus Aurelius (121–180 CE), Stoicism had mellowed to the wonderful description given in his *Meditations*. Illustrative is his following statement (Bk. 11), which is also one of the first references to Christianity external to the creed:<sup>15</sup>

What a soul that is which is ready, if at any moment it must be separated from the body, and ready either to be extinguished or dispersed or continue to exist; but so that this readiness comes from a man's own judgment, not from mere obstinacy, as with the Christians, but considerately and with dignity and in a way to persuade another, without tragic show.

It's also clear that the Stoics (as well as the Epicureans) promoted one of the foundational features of the West, namely, individualism, but as readers can find on the internet,<sup>16</sup> it's debatable if another foundational feature of the West, namely, human rights, should be attributed to the Stoics, in spite of the frequently quoted statement by Rome's Seneca the Younger (c.4 BCE – 65 CE):

It is a mistake to imagine that slavery pervades a man's whole being; the better part of him is exempt from it: the body indeed is subjected and in the power of a master, but the mind is independent, and indeed is so free and wild, that it cannot be restrained even by this prison of the body, wherein it is confined.

In fact, it's easy to argue that the Stoics suppressed the concept of human rights, since they promoted the bizarre concept that only your thoughts belong to you (would that it were so; would that indoctrination were prohibited!), and therefore, your claim on anything else (even your body!), for some unexplained reason, had less validity than another person's claim on what we in the West now consider to be your own.

In his book, Durant summarizes the Stoics' influence as follows:

The Stoics lent countenance to superstition, and had an injurious effect upon science; but they saw clearly the basic problem of their age – the collapse of the theological basis of morals – and they made an honest attempt to bridge the gap between religion and philosophy.

I would agree that the Stoics made “an honest attempt”, but similar to Buddhists, what an impossible method they chose: they sought happiness (an emotion) by suppressing emotion!

---

<sup>15</sup> See <http://classics.mit.edu/Antoninus/meditations.html>.

<sup>16</sup> See, e.g., [http://people.wku.edu/jan.garrett/doubtful\\_descent\\_3.htm](http://people.wku.edu/jan.garrett/doubtful_descent_3.htm).

That they could accomplish such a feat and that other mystics can convince themselves that, if they become slaves to their god, then they'll be free, and if they are killed for their cause, then they'll live forever, leads me to marvel at the ability of humans to fool themselves. Feynman saw the problem and described the solution well:

Science is a way of trying not to fool yourself. The first principle is that you must not fool yourself, and you are the easiest person to fool.

## EPICUREANISM

While Zeno of Citium (c.334–c.262 BCE) and his followers suppressed emotions by extending Aristotle's logic, applying it to the Socratic problem of how to live a "good life", and (unfortunately) by adopting Plato's (and others') unjustified premisses, Epicurus (341–270 BCE) developed his philosophy from the foundation provided by Democritus (c.460–c.370 BCE) and by refusing to follow Aristotle down the path he explored trying to ascertain "the function of man." Instead, and perhaps also following the astronomer Eudoxus of Cnidus (c.410–c.355 BCE), Epicurus sought methods to optimize happiness, seeking a deliberate and delicate balance between seeking some pleasures while enduring some pains.

Below, I'll try to illustrate those comments and then comment on Epicurus' failure to investigate and understand the nature of 'pleasure' and 'pain', an error that began to be corrected almost 2,000 years later by the (stoical!) "father of psychology", Baruch Spinoza (1632–77). First, however, and consistent with my earlier remarks, I want to comment on the epistemology and worldview that Epicurus apparently adopted.

### Epicurus' Epistemology

As I already mentioned, the fundamental step in developing one's worldview is to decide how knowledge is to be gained. To try to understand Epicurus' epistemology, we're hampered because all of the ~300 books (or scrolls) that he reportedly wrote were lost – or destroyed by his adversaries (including first the Stoics and then the Christians). Several of his short documents survived, however, including four of his letters, a list of his principal doctrines, his Last Will, and what have become known as "the Vatican Sayings" (contained in a 14th century document from the Vatican

Library and which include quotations from later Epicureans). Copies of the surviving documents are available at Vincent Cook's website.<sup>17</sup>

Moreover, some of Epicurus' complete books were apparently available to some ancient authors, and from those authors, additional information is available, specifically about Epicurus' epistemology. Thus, in Chapter 10, entitled "The Life of Epicurus", of his book *The Lives and Opinions of Famous Philosophers*,<sup>18</sup> written in about 230 CE, Diogenes Laërtius references Epicurus' book *The Canon or The Criterion* [of Truth], from which Epicurus' epistemology is clear. In the following quotation from Diogenes Laërtius, the notes in braces, {...}, seem to have been added by Erik Anderson; I've added a few notes in brackets, [...].

### [Epicurus'] **Three Divisions of Philosophy: Canonics, Physics, and Ethics**

But first [writes Diogenes Laërtius], some few preliminary remarks about [Epicurus'] division of his philosophy. It is divided into three subjects: Canonics, Physics, and Ethics. Canonics forms the introduction to the system and is found in a single work entitled *The Canon*. Physics consists of a comprehensive theory of nature; it is found in the thirty-seven books *On Nature* and is also summarized among his *Letters*. Ethics, finally, deals with choice and avoidance, which may be found in the books *On Lifecourses*, among his *Letters*, and in the book *On the End-Goal*.

Canonics and Physics are usually treated jointly. The former defines the criterion of truth and discusses first principles (the elementary part of philosophy), while the latter deals with the creation and destruction of things in nature. Ethics counsels upon things chosen *versus* those avoided, the art of living, and the end-goal. Dialectics they dismiss as superfluous – they say that ordinary terms for things is sufficient for physicists to advance their understanding of nature.

### **Some Elaboration on Canonics**

Now in *The Canon* Epicurus states that the criteria of truth are:

- Sensations {*tas aistheses*},
- Preconceptions {*prolepses*}, and
- Feelings {*ta pathon*}.

Epicureans in general also include: mental images focused by thought. His own statements are also to be found in the *Letter to Herodotus* and the *Principle Doctrines*.

<sup>17</sup> At <http://www.epicurus.net/>.

<sup>18</sup> Available at <http://www.epicurus.info/etexts/Lives.html>.

“Sensation,” he says, “is non-rational and unbiased by memory, for it is neither produced spontaneously {inside the mind} nor can it add or subtract information from its external cause.

“Nothing exists which can refute sensations. Similar sensations cannot refute each other {e.g., things seen}, because they are equally valid. Dissimilar sensations cannot either {e.g., things seen versus things heard}, since they do not discriminate the same things. Thus, one sensation cannot refute another, since they all command our attention. Nor can reason refute sensations, since all reason depends on them. The reality of independent sensations confirms the truth of sensory information (seeing and hearing are real, just as experiencing pain is).

“It follows that we can draw inferences about things hidden from our senses only from things apparent to our senses. Such knowledge results from applying sensory information to methods of confrontation, analogy, similarity, and combination, with some contribution from reasoning also.

“The visions produced by insanity and dreams also stem from real objects, for they do act upon us; and that which has no reality can produce no action.”

Preconception, the Epicureans say, is a kind of perception, correct opinion, conception, or general recollection of a frequently experienced external object. For example: ‘Such-and-such kind of thing is a man’ – as soon as the word ‘man’ is uttered, the figure of a man immediately comes to mind as a preconception, already formed by prior sensations.

Thus, the first notion a word awakens in us is a correct one; in fact, we could not inquire about anything if we had no previous notion of it. For example: ‘Is that a horse or an ox standing over there?’ One must have already preconceived the forms of a horse and an ox in order to ask this. We could not even give names to things if we had no preliminary notion of what the things were. It follows that preconceptions clearly exist.

Opinions also depend on preconceptions. They serve as our point of reference when we ask, for example, ‘How do we know if this is a man?’ The Epicureans also use the word assumption for opinion. An opinion may be true or false. True opinions are confirmed and uncontradicted {by the testimony of sensations}; false opinions are unconfirmed and contradicted {by the testimony of sensations}. Hence they speak of awaiting {testimony} when one awaits a closer view of an object before proclaiming it to be, for example, a tower.

Feelings they say are two: pleasure and pain, which affect every living being. Pleasure is congenial to our nature, while pain is hostile to it. Thus they serve as criteria for all choice of avoidance.

They also say that there are two kinds of philosophical inquiry: one concerns facts, the other mere words.

The above clearly communicates the bases of Epicurus' epistemology: he based his worldview and his philosophy not on words (as did Aristotle, Plato, Socrates, and the earlier Sophists) but on data determined by the senses and from

... inferences... from things apparent to our senses. Such knowledge results from applying sensory information to methods of confrontation, analogy, similarity, and combination, with some contribution from reasoning also.

In his *Letter to Herodotus*, Epicurus adds (in which the additions between slashes, /.../, are “scholarly repairs to text deemed corrupt or missing”):<sup>19</sup>

... we must conduct all our investigations based on the testimony of our senses, feelings, and all other valid criteria. In this way, we shall have some sign by which to make inferences about things awaiting confirmation /by the testimony of our senses/ and also about things /that will remain/ hidden from our senses.

In fact, scientists apply the same methods to this day, save only that we use instruments developed to extend the range of our senses.

### Naturalists' Worldview

As I tried to indicate in earlier posts in this subseries, a naturalistic worldview started to be developed in ancient Greece by Thales (c.624–c.545 BCE), who perhaps absorbed some of his ideas from travels in Mesopotamia and beyond. Thales' speculation that “water is the cause of all things” led to a host of other speculations about natural causes by other Ionian Greeks (i.e., Greek settlers living in what is now western Turkey). These speculations included the idea of Anaximander (c.610–c.546 BCE) that humans were “like another animal, namely a fish, in the beginning” and the idea of Leucippus (first half of 5th century BCE) and his student Democritus (c.460–c.370 BCE) that “in reality there are atoms and space.” It was this idea of atoms that, a century later, became foundational for the worldview adopted by Epicurus (341–270 BCE). In what follows, consequently, I first want to comment on the ideas of some of the earlier materialists or naturalists.

---

<sup>19</sup> From <http://www.epicurus.info/etexts/Lives.html>.

### *Leucippus' Atomic Hypothesis*

According to the book *The Lives and Opinions of Eminent Philosophers* by Diogenes Laërtius (already referenced), when Democritus was a boy in the Thracian city of Abdera (in the NE corner of Greece), he was a pupil of the Magi (Zoroastrian priests of what is now Iran) and the Chaldeans (astronomers and astrologers of what is now southern Iraq),

... whom [the Persian king] Xerxes had left with his father as teachers, when he had been hospitably received by him... and from these men he [Democritus], while still a boy, learned the principles of astronomy and theology. Afterwards, his father entrusted him to Leucippus...

Other than being usually credited with formulating the atomic hypothesis, little is known about Democritus' teacher Leucippus. He apparently belonged to the Ionian school of natural philosophy (of Thales, Anaximander, Anaximenes, Anaxagoras, et al.), founding his own school in about 440 BCE.

According to the Wikipedia article on Leucippus,<sup>20</sup> the legend about his being a student of Zeno of Elea, as claimed in the referenced book by Diogenes Laërtius, is “totally false”. It does appear to be correct, however, that Leucippus' main impetus for developing his atomic hypothesis was to reject the idea promoted by Zeno and his teacher Parmenides that a void couldn't exist, instead proposing that the universe was entirely a “void” – save for the presence of what he called atoms (derived from the Greek prefix *a-*, used for negation, and from *temnein* meaning “to cut”; so, ‘atom’ means ‘uncuttable’ or ‘indivisible’). In turn, Leucippus' atomic hypothesis was probably influenced by the Ionian physicist Anaxagoras (c.500–c.428 BCE), who lived at approximately the same time and who proposed<sup>21</sup> that all things “originally... existed in infinitesimally small fragments of themselves, endless in number... /which originally/ existed in a confused and indistinguishable form /and which relied on/ mechanical processes [*Nous*] in the formation of order.”

Leucippus' atomic hypothesis was revolutionary, summarized well by Feynman in Vol. II of his *Lectures on Physics*:

<sup>20</sup> At <http://en.wikipedia.org/wiki/Leucippus>.

<sup>21</sup> From <http://en.wikipedia.org/wiki/Anaxagoras>.

If, in some cataclysm, all scientific knowledge were to be destroyed, and only one sentence passed on to the next generation of creatures, what statement would contain the most information in the fewest words? I believe it is the atomic hypothesis (or atomic fact, or whatever you wish to call it) *that all things are made of atoms – little particles that move around in perpetual motion, attracting each other when they are a little distance apart, but repelling upon being squeezed into one another.* In that one sentence you will see an *enormous* amount of information about the world, if just a little imagination and thinking are applied.

We now know that the atomic hypothesis contains “*an enormous amount of information*”; Feynman illustrates what he meant in a great video at the TED website.<sup>22</sup> When the atomic hypothesis was proposed by Leucippus, promoted by Democritus, and a century-or-so later adopted by Epicurus, however, it was little more than speculation. Nonetheless, Leucippus’ speculation stimulated subsequent Epicureans (such as the Roman author Lucretius and most modern scientists) to develop a materialistic or naturalistic worldview, in dramatic conflict with the idealistic, supernatural worldviews of the Stoics and all religious people.

It isn’t clear what stimulated Leucippus to take such an enormous leap into the unknown (to postulate the existence of atoms separated by “the void”, without data to support his speculation). It might be thought that the stimulation was similar to how today’s teachers usually introduce the idea of atoms; that is, by asking students to imagine cutting something into smaller and smaller pieces until, with one more attempted cut, the pieces would no longer be the same substance. For example, continue to cut a crystal of table salt into pieces until finally only one molecule of sodium chloride remains; cut that one molecule, and the result will be one atom of sodium and one of chlorine (and so on, if the teacher wishes to introduce students to ideas about electrons, nuclei, nucleons, quarks, etc.). Although Leucippus might have imagined such cutting until no more cutting was possible (for, after all, he created the word ‘atom’, meaning ‘uncuttable’), yet historians suggest that he proposed his idea to resolve some of Zeno’s (or Parmenides’) paradoxes, namely, that change is an illusion and that movement is impossible.

How Zeno and Parmenides managed to trap themselves in such paradoxes is almost unimaginable, at least for those of us familiar with the idea of atoms separated by “a void” (i.e., with atoms sitting in “empty” space). What apparently happened was that Parmenides made the mistake (common to

---

<sup>22</sup> At [http://www.ted.com/talks/richard\\_feynman.html](http://www.ted.com/talks/richard_feynman.html).

almost all ancient Greek philosophers) of relying only on reason. He described his reliance on reasoning (rather than data) by writing:

Let not the common usages of men  
Persuade your better taught experience,  
To trust to men's unsafe deceitful sight,  
Or treacherous ears, or random speaking tongue:  
Reason alone will prove the truth of facts.

Then, with the mistake of relying only on reason,<sup>23</sup> Parmenides concluded that a void (what we call 'space' or 'the vacuum') could not exist, his (logical) argument being:

For never shall this prevail, that things that are not are.

That is, he apparently reasoned: since a void is nothing, it can't exist.

Of course, it's now obvious to us that Parmenides trapped himself in word games, not only because the void that he was considering was not 'nothing' but 'space' or 'the vacuum' (which is filled with negative energy) but also because he didn't understand the concept of 'existence'. And actually, even Epicurus continued to promote the same mistake, erroneously stating in his *Letter to Herodotus*:

Nothing comes into existence from non-existence. For if that were possible, anything could be created out of anything, without requiring seeds. And if things which disappear became non-existent, everything in the universe would have surely vanished by now. But the universe has always been as it is now, and always will be, since there is nothing it can change into. Nor is there anything outside the universe which could infiltrate it and produce change.

In contrast, it now seems clear<sup>24</sup> both that our entire universe sums to nothing (in that, in total, almost certainly it contains zero electrical charge, zero momentum, and zero mass/energy) and that "totally nothing" can in fact yield something, e.g., by splitting into equal positive and negative "somethings" (such as energy), as presumably happened, leading to the Big Bang. Thereby, both Parmenides' interpretation of his stated premiss "nothing comes from nothing" and Epicurus' interpretation of his stated premiss "nothing comes into existence from non-existence" seem to be invalid: it appears that our universe (in total, nothing) did in fact come from

<sup>23</sup> See [http://zenofzero.net/docs/R\\_Reason\\_versus\\_Reality.pdf](http://zenofzero.net/docs/R_Reason_versus_Reality.pdf).

<sup>24</sup> See <http://zenofzero.net/docs/Awareness.pdf> and [http://zenofzero.net/docs/Z\\_The\\_Zen\\_of\\_Zero.pdf](http://zenofzero.net/docs/Z_The_Zen_of_Zero.pdf).

nothing! As Einstein enigmatically said: “[our] universe [is] matter expanding into nothing that is something.”

From his incorrect conclusion that a void couldn't exist, Parmenides then deduced that motion could not exist (for it would mean motion of something into nothing, which he had reasoned couldn't exist), concluding:<sup>25</sup>

[What exists] is now, all at once, one and continuous... Nor is it divisible, since it is all alike; nor is there any more or less of it in one place, which might prevent it from holding together, but all is full of what is.

Parmenides' conclusion that motion couldn't exist was then illustrated by Zeno in his paradoxes.

Leucippus' apparent argument, in contrast, was devastatingly simple. Unlike Parmenides and Zeno, he relied on evidence that motion does, in reality, occur. Therefore, he apparently reasoned,<sup>26</sup> there must be a void into which any material body moves. He then leaped to the conjecture that any material body must be made of smallest parts (atoms), that such atoms exist within what was otherwise a void, and that change occurs by rearrangements and motion of atoms in the void.

### *Democritus' Extrapolations*

Democritus embraced and expanded Leucippus' ideas of atoms in the void. Most unfortunately for us, though, none of Democritus' books (or scrolls) has been found. What we now know about his ideas<sup>27</sup> is only through fragments of his writings and “secondhand reports, sometimes unreliable or conflicting.” Immediately below are some inferences about his ideas in physics; later, I'll list some inferences about his ethical ideas.

For both sets of resulting “quotations”, however, it's to be emphasized<sup>28</sup> that they “do not correspond [exactly] to any extant work”. Yet, to help the reader understand what seem to have been Democritus' ideas (based on fragments and secondhand reports), the ideas are written as if they were direct quotations. As can be found at the referenced website, the original authors of these “extrapolations” are Kathleen Freeman (in *Ancilla to The*

<sup>25</sup> From <http://en.wikipedia.org/wiki/Parmenides>.

<sup>26</sup> See <http://plato.stanford.edu/entries/leucippus/>.

<sup>27</sup> See <http://plato.stanford.edu/entries/democritus/>.

<sup>28</sup> See <http://www.humanistictexts.org/democritus.htm>.

*Pre-Socratic Philosophers*, Oxford, Basil Blackwell, 1948) and G.S. Kirk and J.E. Raven (in “The Pre-Socratic Philosophers”, *Selections from Early Greek Philosophy*, Milton C. Nahm, Cambridge University Press, 1962).

- We see changes in things because of the rearrangement of atoms, but atoms themselves are eternal. Words such as ‘nothing’, ‘the void’, and ‘the infinite’ describe space. Individual atoms are describable as ‘not nothing’, ‘being’, and ‘the compact’. There is no void in atoms, so they cannot be divided. I hold the same view as Leucippus regarding atoms and space: atoms are always in motion in space.
- The material cause of all things that exist is the coming together of atoms and void. Atoms are too small to be perceived by the senses. They are eternal and have many different shapes, and they can cluster together to create things that are perceivable. Differences in shape, arrangement, and position of atoms produce different things. By aggregation they provide bulky objects that we can perceive with our sight and other senses.
- It has often been demonstrated that we do not grasp how each thing is or is not. Sweet exists by convention, bitter by convention, color by convention. Atoms and void alone exist in reality... We know nothing accurately in reality, but only as it changes according to the bodily condition, and the constitution of those things that flow upon the body and impinge upon it. It will be obvious that it is impossible to understand how in reality each thing is.
- There are two ways of knowledge, one genuine, one imperfect. To the latter belong all the following: sight, hearing, smell, taste, touch. The real is separated from this. When the imperfect can do no more – neither see more minutely, nor hear, nor smell, nor taste, nor perceive by touch with greater clarity – and a finer investigation is needed, then the genuine way of knowledge comes in as having a tool for distinguishing more finely.

In the last of the above “quotations”, it’s unclear what Democritus might have meant by “[the genuine way of knowledge](#)”. We now know that “the genuine way to knowledge” (about the world external to our minds) is to use the scientific method (“guess, test, and reassess”), but it’s unclear what experiments Leucippus and Democritus could have conducted to test the atomic hypothesis – especially since it was another 2,000-and-more years before appropriate experimental methods were developed! Perhaps they could have cut samples of various materials until their taste, color, etc. became imperceptible, but maybe Democritus meant that “the genuine way of knowledge” was, as Parmenides unfortunately said: “[Reason alone will prove the truth of facts.](#)”

Evidence to support the possibility that Democritus did propose to rely on “reason alone” is available in the following extrapolation of one of his most spectacular speculations (from the same source as the “quotations” given above):

There is an infinite number of worlds of different sizes: some are larger than ours, some have no sun or moon, others have suns or moons that are bigger than ours. Some have many suns and moons. Worlds are spaced at differing distances from each other; in some parts of the universe there are more worlds, in other parts fewer. In some areas they are growing, in other parts, decreasing. They are destroyed by collision with one another. There are some worlds with no living creatures, plants, or moisture.

It may be another 2,000 years before evidence is available to test that speculation!

Yet, although Democritus was obviously prone to speculations, there are some hints that he sought to gain reliable knowledge. An example is his oft-quoted line:

I would rather discover one true cause than gain the kingdom of Persia.

In addition, as a result of his travels to Egypt, Ethiopia, Persia, and perhaps India, he apparently boasted:

Of all my contemporaries I have covered the most ground in my travels, making the most exhaustive inquiries the while; I have seen the most climates and countries and listened to the greatest number of learned men.

After exhausting his inheritance in his travels, he reportedly gave public lectures in his hometown of Abdera. Also, he wrote more than 60 “books” (or scrolls) dealing with a great variety of subjects, including ethics, physics, mathematics, music, and cosmology.<sup>29</sup> It’s reported by Petronius (c.27–66 CE) in Chapter 11 of his presumed fictional story *The Satyricon* that<sup>30</sup>

Democritus extracted the juices of every herb, and spent his life in experimenting, that no virtue of mineral or plant might escape detection.

---

<sup>29</sup> See <http://plato.stanford.edu/entries/democritus/>.

<sup>30</sup> From <http://www.sacred-texts.com/cla/petro/satyr/index.htm>.

In addition,<sup>31</sup> Democritus “acquired fame with his knowledge of natural phenomena and predicted changes in the weather.” His mantra seems to have been:

Believe not everything, but only what is proven: the former is foolish, the latter the act of a sensible man.

In the above “quotation”, it’s also unclear what Democritus might have meant by the word ‘proven’; it would have been better if he used a word such as ‘demonstrated’.

If readers compare the above “extrapolations” of Democritus’ ideas about physics with the ideas promoted by Epicurus (as given in his *Letter to Herodotus*), a great many similarities will be found. In fact, substantial uncertainties persist about which of the surviving Epicurean ideas should be attributed to him *versus* to Democritus. Interested readers might want to read Karl Marx’s 1841 doctoral dissertation,<sup>32</sup> entitled *The Difference Between the Democritean and Epicurean Philosophy of Nature* in which Marx sought to differentiate between the ideas of the two. But for present purposes, pursuing such distinctions would be a distraction.

It would be more relevant to include, here, at least a brief description of the progress made developing the scientific method by Democritus’ friend (and/or his doctor), “the father of modern medicine”, Hippocrates (c.460–377 BCE). In fact, in an earlier version of this post, I did include an outline of Hippocrates’ accomplishments, but not only did it continue for multiple pages, it was somewhat tangential: as important (even revolutionary) as were the accomplishments of Hippocrates in developing the scientific method, his subject (medicine) wasn’t sufficiently broad to stimulate a major challenge to existing worldviews (and their associated outlooks on life). Therefore, I’ll postpone describing some of Hippocrates’ ideas and here just state that other progress was being made that influenced the development of Epicurus’ worldview.

### *Epicurus’ Worldview*

In developing his worldview, Epicurus was apparently influenced not only by scientific advances since the time of Leucippus and Democritus (including those by Hippocrates and Aristotle) but also by other

---

<sup>31</sup> From <http://www.utm.edu/research/iep/d/democrit.htm>.

<sup>32</sup> Available at <http://www.marxists.org/archive/marx/works/1841/dr-theses/index.htm>.

philosophers. For example, in his 1939 book (already referenced) Durant states (p. 739):

From Aristippus [c.435–c.356 BCE] he [Epicurus, 341–c.270 BCE] learned the wisdom of pleasure, and from Socrates [c.470–399 BCE] the pleasure of wisdom; from Pyrrho [c.360–c.270 BCE] he took the doctrine of tranquility, and a ringing word for it – *ataraxia*.

He must have watched with interest the career of his contemporary Theodorus of Cyrene, who preached an unmoralistic atheism [a phrase that suggests Durant's Christian bias] so openly in Athens that the Assembly indicted him for impiety – a lesson that Epicurus did not forget.

Epicurus may have been influenced, also, by a disciple of Democritus, Diagoras of Melos. Diagoras is described<sup>33</sup> as “the first atheist”, he “made the Eleusinian Mysteries public, and discouraged people from being initiated... The Athenians accused him of impiety, and he was forced to flee the city.” As a result, Epicurus may have tempered his criticism of “the gods”, allowing the possibility that they existed but apparently adopting Aristotle's position that the gods weren't interested in the affairs of mere humans.

But regardless of Epicurus' own opinions about the gods and in view of space limitations for this post, below I'll simply list a few additional elements of his worldview (beyond those of Democritus), without further attempts to identify their possible origins. Of the many ideas in his worldview, I've listed below only those that were most revolutionary for his time, that have withstood the test of time, and that generated so much clerical bitterness (because the ideas undermined the clerics' con games). In this list, I've used the same categorization as in Epicurus' *Letter to Herodotus* and again following Erik Anderson,<sup>34</sup> I've used /.../ to indicated “scholarly repairs to text deemed corrupt or missing.”

#### **Atomic Motion:**

Motion [of atoms] through the void may traverse any ordinary distance in an extraordinarily short time, because the lack of obstruction from colliding bodies. Only through collision and non-collision can atomic motion resemble “slow” and “fast.”

<sup>33</sup> See [http://en.wikipedia.org/wiki/Diagoras\\_of\\_Melos](http://en.wikipedia.org/wiki/Diagoras_of_Melos).

<sup>34</sup> See <http://www.epicurus.info/index.php>.

**The Soul:**

When the whole body is destroyed, it no longer possesses sensation, because the soul is dissolved... Those who say that the soul is incorporeal are talking nonsense.

**World-Systems:**

{World-systems, like all compounds, are perpetually created and destroyed}...  
/...Moreover, with regard to living things,/ it cannot be proven that the seeds from which animals, plants, and other things originate are not possible on any particular world-system.

**Natural History:**

In their environment, primitive men were taught or inspired by instinct to do many kinds of things, but reason later built upon what had been begun by instinct. New discoveries were made – faster among some people, slower among others. In some ages and eras /progress occurred by great leaps/, in others by small steps...

*Words*, for instance, were not initially coined by design. Men naturally experienced feelings and impressions which varied in the particulars from tribe to tribe, so that each of the individual feelings and impressions caused them to vocalize something in a particular way, in accordance also with differing racial and environmental factors.

**Celestial Phenomena:**

The purpose of physics is to correctly identify the causes of phenomena that concern us... Our happiness depends on this, and on knowing what celestial bodes really are, and on related facts... Additionally, the worst turmoil in human souls arise because:

- They think that celestial bodies are blessed and immortal [i.e., godlike] yet desire, scheme, and act in ways that are incompatible with divine nature.
- They either foresee their deaths as eternal suffering, as depicted in myths, or they fear the very lack of consciousness that accompanies death as if it could be of concern to them.
- They suffer all this, not because there is a reasonable basis, but because of their wild imagination – and by not setting a limit to suffering, their level of turmoil matches or exceeds what they would suffer even if there was a reasonable basis.

Peace of mind comes from having been freed from all this, and by always remembering the essential principles of our whole system of belief. Thus, we should pay attention to those feelings and sensations which are present within us (both those we have in common with humankind at large, and the particular ones we have in each of ourselves) according to each of the criteria of truth. Only then shall we pin down the sources of disturbance and fear. And when we have learned the causes of celestial phenomena and related events, we shall be free from whatever is terrifying to the rest of humankind.

In his *Letter to Pythocles*,<sup>35</sup> Epicurus adds:

The regularity of celestial motions must be accounted for like events on earth, without introducing the need of the gods.

### Naturalistic Ethics

As already mentioned, once decisions are made about how knowledge is gained and a resulting worldview is established, consistent ethics can be developed. In the case of Epicurus, it appears that many of his ethical ideas (but not all) were restatements of the ethics of earlier naturalists, especially Democritus. Therefore, below I'll first briefly review some of Democritus' ideas, after inserting some additional comments about Democritus.

### *Democritus' Ethics*

As also already mentioned, the atomic hypothesis of Leucippus and Democritus was sufficiently broad and fundamental that Democritus was able to develop a worldview and associated ethics based upon it – which if one stops to think about it, is really quite amazing. That is, although, now, their worldview (that the universe is natural) has sufficient experimental support that we scientific humanists (or naturalists, Humanists, or Brights) feel secure about it, one can imagine that the mystics and maybe others of his day would have considered Democritus foolish (or worse) to erect an ethical philosophy on such a “miniscule” foundation, i.e., invisible atoms *versus* the mystics' visible universe!

Actually, though, Democritus may have based his philosophy (or also based his philosophy) on ideas he picked up during his travels. In particular, as already mentioned, he reportedly traveled extensively (“squandering” his inheritance on his travels), including a trip to India. In India at the time, two competing schools of philosophy emerged, a mystical but skeptical school developed under Siddhārtha Gautama (the Buddha) and a skeptical, materialistic school under Cārvāka,<sup>36</sup> who promoted ideas similar to those later promoted by Democritus. Unfortunately, little is known about the Cārvāka philosophy (except that it was materialistic and atheistic), because the “ruling” clerics (the Hindus) apparently destroyed the writings of the school – similar to how clerics throughout history have reacted to ideas that challenge their privileged positions.

---

<sup>35</sup> Available at <http://www.epicurus.info/etexts/Lives.html>.

<sup>36</sup> See <http://en.wikipedia.org/wiki/Cārvāka>.

Yet, however Democritus might have developed his insight, the result was the atheistic premiss of his worldview:

The universe is infinite, because it has not been produced by a creator. The causes of what now exists had no beginning.

Then, having laid the above-stated foundation for his worldview (with no “creator god”), Democritus proceeded to construct a consistent ethical philosophy. Extrapolations of his resulting ideas about how best to live one’s life include the following, which I’ve copied from the same source<sup>37</sup> as for the “quotations” given earlier in this post and which, therefore, should be subject to the same doubt about what his actual statements were:

- Imperturbable wisdom is worth everything. To a wise man, the whole earth is open, for the native land of a good soul is the whole earth. [An assessment similar to that of Socrates, Diogenes the Cynic, and the later, cosmopolitan ideas of the Stoics and Epicureans.]
- Men ask in their prayers for health from the gods, but do not know that the power to attain this lies in themselves. By doing the opposite of what they should do, through lack of control, they themselves become the betrayers of their own health to their desires. The things needed by the body are available to all without toil and trouble. But the things which require toil and trouble and which make life disagreeable are not desired by the body but by an ill-constitution of the mind. [Ideas perhaps influenced by Hippocrates and that preceded, by about a century, similar ideas of the Epicureans and Stoics.]
- It is possible without spending much of one’s money to educate one’s children, and so to build round their property and their persons a fortification and a safeguard. Frivolity in an educator of youth is the worst of all things, for it breeds those pleasures from which wickedness comes. [Ideas repeated by Socrates and Aristotle and adopted by the Cynics.]
- Poverty under democracy is as much to be preferred to so-called prosperity under an autocracy, as is freedom to slavery. [Ideas rejected by Plato but adopted by both Epicureans and Stoics.]
- People are fools who yearn for what is absent, but neglect what they have... [Similar to the (later) Jewish saying: “Happiness is wanting what you already have.”]
- Happiness does not dwell in flocks of cattle or in gold. Happiness, like unhappiness, is a property of the soul [which Democritus, probably influenced by Hippocrates,

<sup>37</sup> At <http://www.humanistictexts.org/democritus.htm>.

identifies as the mind]... Men find happiness neither by means of the body nor through possessions, but through uprightness and wisdom. [An incomplete idea that was promoted by Socrates, Aristotle, and both Epicureans and Stoics, improved upon by Spinoza, and corrected by modern psychologists, building on the work of Maslow.]

- Cheerfulness or well-being is created in man through a harmonious life and moderation of enjoyment. [An idea as old as Sin-leqe-unnini's *Gilgamesh* and Homer's *Odyssey* and the essence of both Epicureanism and Stoicism. Incidentally, Democritus was known<sup>38</sup> as “the laughing {or cheerful} philosopher” – a moniker that he may have earned because of his cheerfulness but perhaps because he laughed at human follies, seeming to mock people and their priests.]
- One must respect one's own opinion most, and this must stand as the law of one's soul, preventing one from doing anything improper. [Ideas adopted by both the Epicureans and Stoics.]
- Pleasure and absence of pleasure are the criteria of what is profitable and what is not. Accept no pleasure unless it is beneficial. Moderation multiplies pleasures and increases pleasure. If one oversteps the due measure, the most pleasurable things become most unpleasant. [More ideas adopted by both Epicureans and Stoics.]
- Some men, not knowing about the dissolution of mortal nature, but acting on knowledge of the suffering in life, afflict the period of life with anxieties and fears, inventing false tales about the period after the end of life. [An idea that most separates the naturalistic Epicureans from the supernaturalistic Stoics – as well as, of course, from all clerics who promoted and still promote the oxymoron of “life after death”.]

The above were revolutionary ideas; one can easily see why mystics such as Plato would react with hostility. In fact, Aristotle's student Aristoxenus (364–304 BCE) reportedly wrote:<sup>39</sup>

Plato wanted to burn all the works of Democritus but was unable to do so, because the books were so popular and widely distributed.

The same source states:

Other sources suggest that the loss of most of Democritus' writings is evidence that Plato succeeded. In either event, Plato managed to avoid any mention of Democritus in his own writings.

---

<sup>38</sup> See <http://en.wikipedia.org/wiki/Democritus>.

<sup>39</sup> From <http://www.bbc.co.uk/dna/h2g2/A3936026>.

### *Eudoxus' Ethics*

Another of Plato's famous students, however, apparently disagreed with him, agreeing with Democritus' statement: "Pleasure and absence of pleasure are the criteria of what is profitable and what is not." His name (meaning "good opinion")<sup>40</sup> was Eudoxus of Cnidus (c.410–c.355 BCE), where Cnidus was a city "on the Resadiye Peninsula, on the Black Sea, now in Turkey." According to the Wikipedia article on Eudoxus:<sup>41</sup>

Eudoxus's father Aeschines of Cnidus loved to watch stars at night. Eudoxus first traveled to Tarentum to study with Archytas, from whom he learned mathematics. While in Italy, Eudoxus visited Sicily, where he studied medicine with Philiston... Around 387 BC, at the age of 23, he traveled with the physician Theomedon... to Athens to study with the followers of Socrates. He eventually became the pupil of Plato, with whom he studied for several months, but due to a disagreement they had a falling out... Around 368 BC, Eudoxus returned to Athens with his students. According to some sources, around 367 he assumed headship of the Academy during Plato's period in Syracuse, and taught Aristotle.

I didn't find details about Eudoxus' "falling out" with Plato (possible causes include disagreements over astronomy, mathematics, or Democritus' ideas about pleasure), but in *Nichomachean Ethics* (X, 1) Aristotle provides the following information, apparently supporting Eudoxus' (and therefore, Democritus') ideas about pleasure and pain – while (once again) criticizing Plato:

Eudoxus thought pleasure was the good because he saw all things, both rational and irrational, aiming at it, and because in all things that which is the object of choice is what is excellent, and that which is most the object of choice the greatest good; thus the fact that all things moved towards the same object indicated that this was for all things the chief good (for each thing, he argued, finds its own good, as it finds its own nourishment); and that which is good for all things and at which all aim was the good. His arguments were credited more because of the excellence of his character than for their own sake; he was thought to be remarkably self-controlled, and therefore it was thought that he was not saying what he did say as a friend of pleasure, but that the facts really were so.

He believed that the same conclusion followed no less plainly from a study of the contrary of pleasure; pain was in itself an object of aversion to all things, and therefore its contrary must be similarly an object of choice. And again that is most an object of choice which we choose not because or for the sake of something else, and

<sup>40</sup> See [http://www.physics.ubc.ca/~berciu/PHILIP/TEACHING/PHYS340/NOTES/FILES/\(7\)Greek-Astronomy.pdf](http://www.physics.ubc.ca/~berciu/PHILIP/TEACHING/PHYS340/NOTES/FILES/(7)Greek-Astronomy.pdf).

<sup>41</sup> At [http://en.wikipedia.org/wiki/Eudoxus\\_of\\_Cnidus](http://en.wikipedia.org/wiki/Eudoxus_of_Cnidus).

pleasure is admittedly of this nature; for no one asks to what end he is pleased, thus implying that pleasure is in itself an object of choice. Further, he argued that pleasure when added to any good, e.g., to just or temperate action, makes it more worthy of choice, and that it is only by itself that the good can be increased.

This argument seems to show it [pleasure] to be one of the goods, and no more a good than any other; for every good is more worthy of choice along with another good than taken alone. And so it is by an argument of this kind that Plato proves the good not to be pleasure; he argues that the pleasant life is more desirable with wisdom than without, and that if the mixture is better, pleasure is not the good; for the good cannot become more desirable by the addition of anything to it.

Now it is clear that nothing else, any more than pleasure, can be the good if it is made more desirable by the addition of any of the things that are good in themselves. What, then, is there that satisfies this criterion, which at the same time we can participate in? It is something of this sort that we are looking for. Those who object that, that at which all things aim is not necessarily good are, we may surmise, talking nonsense. For we say that, that which every one thinks really is so; and the man who attacks this belief will hardly have anything more credible to maintain instead. If it is senseless creatures that desire the things in question, there might be something in what they say; but if intelligent creatures do so as well, what sense can there be in this view? But perhaps even in inferior creatures there is some natural good stronger than themselves which aims at their proper good.

Nor does the argument about the contrary of pleasure seem to be correct. They say that if pain is an evil it does not follow that pleasure is a good; for evil is opposed to evil and at the same time both are opposed to the neutral state – which is correct enough but does not apply to the things in question. For if both pleasure and pain belonged to the class of evils they ought both to be objects of aversion, while if they belonged to the class of neutrals neither should be an object of aversion or they should both be equally so; but in fact people evidently avoid the one as evil and choose the other as good; that then must be the nature of the opposition between them.

Subsequently, Epicurus may have adopted and adapted such analyses to develop his own Ethics.

### *Epicurus' Ethics*

As already mentioned, substantial uncertainty remains about Democritus' ideas, because all his books were lost or destroyed. Similarly, by the way, almost all of the original books of the Stoics were lost or destroyed. Quite likely much of the destruction was by the subsequent Christian rabble at the urging of Christian demagogues. Most of Epicurus' books were also lost or destroyed, but as also already mentioned, enough of his work remains for his ideas to be reconstructed fairly well.

\* Go to other chapters *via*

In the case of Epicurus' ethics, though, we know them, not only "fairly well", but even "quite well". For example, they're available as *The Principal Doctrines of Epicurus*<sup>42</sup> in Book (or Chapter) X of *Lives and Opinions of Eminent Philosophers* by Diogenes Laërtius. As mentioned by Erik Anderson at the referenced website, "The authenticity of the *Principal Doctrines* is also asserted by testimonials<sup>43</sup> found in several works of antiquity."

And now, I reach a predicament in this post. After such a long trek (which has taken me much longer than I expected!), with the final push being to climb to the summit of Epicurean Ethics, I find that, although not short on oxygen or time, I'm short on space. For interested fellow climbers, I'd recommend that they now go to Epicurus' *Principal Doctrines*, to the additional Epicurean ideas contained in *The Vatican Sayings*,<sup>44</sup> and even to a list of Epicurean quotations.<sup>45</sup> Below, I'll list just a few Epicurean sayings that I relish.

- [Since] pleasure is the first good and natural to us, for this very reason we do not choose every pleasure, but sometimes we pass over many pleasures, when greater discomfort accrues to us as the result of them: and similarly we think many pains better than pleasures, since a greater pleasure comes to us when we have endured pains for a long time. Every pleasure then, because of its natural kinship to us, is good, yet not every pleasure is to be chosen: even as every pain also is an evil, yet not all are always of a nature to be avoided. Yet by a scale of comparison and by the consideration of advantages and disadvantages we must form our judgment on all these matters... When, therefore, we maintain that pleasure is the end, we do not mean the pleasures of profligates and those that consist in sensuality... but freedom from pain in the body and from trouble in the mind... Of all this, the beginning and the greatest good is prudence.
- It is impossible to live a pleasant life without living wisely and honorably and justly, and it is impossible to live wisely and honorably and justly without living pleasantly. Whenever any one of these is lacking, when, for instance, the man is not able to live wisely, though he lives honorably and justly, it is impossible for him to live a pleasant life.
- Death does not concern us, because as long as we exist, death is not here. And when it does come, we no longer exist.

---

<sup>42</sup> At <http://www.epicurus.info/etexts/PD.html>.

<sup>43</sup> See <http://www.epicurus.info/etexts/PD.html-3>.

<sup>44</sup> At <http://www.epicurus.net/en/vatican.html>.

<sup>45</sup> See, e.g., <http://www.brainyquote.com/quotes/authors/e/epicurus.html>.

- The art of living well and the art of dying well are one.
- It is folly for a man to pray to the gods for that which he has the power to obtain by himself.
- If God listened to the prayers of men, all men would quickly have perished, for they are forever praying for evil against one another.
- Of our desires some are natural and necessary, others are natural but not necessary, and others are neither natural nor necessary, but are due to groundless opinion.
- I never desired to please the rabble. What pleased them, I did not learn; and what I knew was far removed from their understanding.
- No one chooses a thing seeing that it is evil, but being lured by it when it appears good in comparison to a greater evil, he is caught.
- Don't spoil what you have by desiring what you don't have, but remember that what you now have was once among the things only hoped for.
- Question each of your desires: "What will happen to me if that which this desire seeks is achieved and what if it is not?"
- Skillful pilots gain their reputation from storms and tempest.
- The greater the difficulty, the more the glory in surmounting it.
- You don't develop courage by being happy in your relationships everyday. You develop it by surviving difficult times and challenging adversity.
- [Interpersonal or social] justice is a pledge of reciprocal benefit, to prevent one man from harming or being harmed by another.
- There is no such thing as [social] justice in the abstract; it is merely a compact between men.
- Of all things which wisdom provides to make life entirely happy, much the greatest is the possession of friendship.
- It is not so much our friends' help that helps us, as the confidence of their help.

Succinctly, what I most admire about Epicurus' ethics is his advice to: 1) Forget about the gods, 2) Forget about death, and 3) Be careful in the pursuit of pleasure and the avoidance of pain. On the other hand, one of his statements with which I disagree is his:

It is impossible for someone to dispel his fears about the most important matters if he doesn't know the nature of the universe but still gives some credence to myths. So, without the study of nature, there is no enjoyment of pure pleasure.

In my view, Epicurus thereby gave the rabble far too much credit! They “know” that their god exists; they “know” that they’re worthy of eternal life in paradise; so, the crazy Christians and Muslims fanatics of the world enjoy “pure pleasure” in their claimed “personal relationship” with their imaginary friend in the sky. Consequently, more important than having such people learn about “the nature of the universe” (as advised by Epicurus) is for them to first learn how to think critically. As the Buddha said:

Believe nothing... merely because you have been told it... or because it is traditional, or because you yourselves have imagined it. Do not believe what your teacher tells you merely out of respect for the teacher. But whatsoever, after due examination and analysis, you find to be conducive to the good, the benefit, the welfare of all beings – that doctrine believe and cling to, and take it as your guide.

More succinctly, there's the advice from the philosopher David Hume (1711–1776), “A wise [person]... proportions his belief to the evidence” and the admonishment from the philosopher Comte de Volney (1757–1820),

To believe without evidence and demonstration is an act of ignorance and folly.

### Epicurus' Riddle & Dilemma

While I'm here, I should at least mention what are called Epicurus' Riddle (or Paradox) and Epicurus' Dilemma. The “riddle of Epicurus” is commonly stated as:<sup>46</sup>

Is God willing to prevent evil, but not able?  
 Then is he not omnipotent.  
 Is he able, but not willing?  
 Then is he malevolent.  
 Is he both able and willing?  
 Then whence cometh evil?  
 Is he neither able nor willing?  
 Then why call him God?

Four points that should be mentioned are the following:

---

<sup>46</sup> From <http://en.wikipedia.org/wiki/Theodicy>.

- 1) The above formulation of the “Problem of Evil” was not by Epicurus but by the philosopher David Hume, yet
- 2) A similar formulation is given by Lucretius (c.99–55 BCE) in his poem extolling Epicurus’ philosophy entitled “On the Nature of Things”,
- 3) Epicurus didn’t consider the riddle to be a paradox: he chose the resolution that either there were no gods or, if there were, they were disinterested in humans, and
- 4) A nice summary of the “epic-cure” was recently posted at static.zoomr.com (a website that unfortunately seems to be no longer available).

<b>the epic cure...</b>		<b>Willing To Prevent Evil</b>	<b>Unwilling To Prevent Evil</b>
		<b>Able To Prevent Evil</b>	<b>Whence Cometh Evil?</b>
<b>Unable To Prevent Evil</b>	<b>Not Omnipotent</b>	<b>Why Call Him God?</b>	

igniteme.stumbleupon.com

On the other hand, the “Epicurean Dilemma” was an aspect of his worldview that apparently did trouble him, and his chosen resolution not only influenced his ethics but also generated substantial and sustained criticism. The dilemma deals with determinism and with the nature of time.

Only recently has a more defensible resolution to the dilemma been developed, in large measure through the studies of Ilya Prigogine, who won

the 1977 Nobel Prize for Chemistry “for his work on dissipative structures, complex systems, and irreversibility.” The proposed resolution is complicated; here, therefore, I’ll provide only an introduction; elsewhere, I’ve provided additional details.<sup>47</sup>

As described in his 1997 book (partially available at Google books) entitled *The End of Certainty*, Prigogine introduces the “Epicurus’ Dilemma” as follows:

Is the universe ruled by deterministic laws? What is the nature of time? These questions were formulated by the pre-Socratics at the very start of Western rationality. After more than twenty-five hundred years, they are still with us. However, recent developments in physics and mathematics associated with chaos and instability have opened up different avenues of investigation. We are beginning to see these problems, which deal with the very position of mankind in nature, in a new light, and can now avoid the contradictions of the past.

The Greek philosopher Epicurus was the first to address a fundamental dilemma. As a follower of Democritus, he believed that the world is made of atoms and the void. Moreover, he concluded, atoms fall through the void at the same speed and on parallel paths. How then could they collide? How could novelty associated with combinations of atoms ever appear? For Epicurus, the problems of science, the intelligibility of nature, and human destiny could not be separated. What could be the meaning of freedom in a deterministic world of atoms? As Epicurus wrote to Meneceus,

Our will is autonomous and independent and to it we can attribute praise or disapproval. Thus, in order to keep our freedom, it would have been better to remain attached to the belief in gods rather than being slaves to the fate of the physicists: the former gives us the hope of winning the benevolence of deities through promise and sacrifices; the latter, on the contrary, brings with it an inviolable necessity.

How contemporary this quotation sounds! Again and again, the greatest thinkers in Western tradition, such as Immanuel Kant, Alfred North Whitehead, and Martin Heidegger [Sorry, Ilya (with whom I’ve argued in person), but surely you’re joking to suggest those three as representatives of “the greatest thinkers in Western tradition”! How about, instead: Spinoza, Hume, and Russell?!], felt that they had to make a tragic choice between an alienating science or an antiscientific philosophy. They attempted to find some compromise, but none proved satisfactory.

---

<sup>47</sup> See [http://zenofzero.net/docs/U\\_Ubiquitous\\_Uncertainties.pdf](http://zenofzero.net/docs/U_Ubiquitous_Uncertainties.pdf) and <http://zenofzero.blogspot.com/2008/05/being-and-time-from-nothing.html>.

Epicurus thought that he had found a solution to this dilemma, which he termed the *clinamen*. As expressed by Lucretius,

While the first bodies are being carried downward by their own weight in straight lines through the void, at times quite uncertain and at uncertain places, they deviate slightly from their course, just enough to be defined as having changed direction.

But no mechanism was given for this *clinamen*. No wonder that it has always been considered a foreign, arbitrary element.

It should be pointed out<sup>48</sup> that, with his *clinamen*, “Epicurus added an element of chance to provide still more control and moral responsibility than physical determinism could provide.” But I’ll leave it to the reader to investigate details of Prigogine’s proposed resolution to Epicurus’ dilemma. A good summary is available at Wikipedia.<sup>49</sup>

In essence, the proposed resolution is first to recognize that isolated, linear, equilibrium, nondissipative, time-reversible systems, commonly considered in (classical, relativistic, and quantum) physics, rarely if ever exist. In reality, most systems are nonlinear, nonequilibrium, dissipative, and not isolated, and therefore are irreversible (i.e., they possess and display a preferred direction for time). Further, for nonlinear systems, uncertainties in initial conditions (no matter how small the uncertainties) eventually lead to random behavior, including chaos, increasing the system’s entropy, and for which only probabilities of possible outcomes can be predicted.

Even out of chaos, however, nonisolated complex systems (such as stardust or complex hydrocarbon molecules) can become organized, if they’re exposed to some energy or other gradient (e.g., if stardust is influenced by a gravitational field or if hydrocarbon molecules are near a volcanic source of heat). Consequently, although isolated systems will tend to equilibrium (a state of maximum randomness, maximum entropy, and for which time has no significance), yet nonisolated systems can decrease their entropy (without violating the second principle of thermodynamics) and evolve. Further, if they possess intelligence, then they can make choices; that is, their behaviors aren’t predetermined or predestined.

---

<sup>48</sup> See <http://www.informationphilosopher.com/solutions/philosophers/epicurus/>.

<sup>49</sup> At [http://en.wikipedia.org/wiki/Ilya\\_Prigogine](http://en.wikipedia.org/wiki/Ilya_Prigogine).

## More of Epicurus' Legacy

Undoubtedly Epicurus was brilliant, perhaps influencing more brilliant people than anyone else ever has – despite more than 2,200 years of distortions of his ideas. After his death in 270 BCE, his principles flourished for more than 500 years. The article<sup>50</sup> entitled “Epicurean History” at the website hosted by Vincent Cooke states:

[Epicureanism]... had successfully acquitted itself as one of the leading and best organized of the Greek philosophical schools, providing an vibrant subculture to those who sought something better than the laughable myths and superstitious dread so characteristic of the dominant culture of the Hellenistic kingdoms and the Roman Empire.

The article goes on to describe the attacks on Epicureanism by Stoics and Christians and its rediscovery by Humanists in the 14<sup>th</sup> through 16<sup>th</sup> Centuries. As a result, Thomas Jefferson (1743–1826) could write in his 31 October 1819 letter to William Short:

I... am an Epicurean. I consider the genuine (*not the imputed*) doctrines of Epicurus as containing everything rational in moral philosophy which Greece and Rome have left us...

I italicized Jefferson's parenthetic remark, “*not the imputed* [doctrines of Epicurus]”, to emphasize Jefferson's acknowledgement of how grotesquely Epicurus' ideas were distorted. An indication of such distortion by other Greeks is available in his *Letter to Menoeceus*, to which I've added the italics:<sup>51</sup>

When we say, then, that pleasure is the end and aim, we do not mean the pleasures of the prodigal or the pleasures of sensuality, as we are understood to do by some *through ignorance, prejudice, or willful misrepresentation*. By pleasure we mean the absence of pain in the body and of trouble in the soul. It is not an unbroken succession of drinking-bouts and of revelry, not sexual lust, not the enjoyment of the fish and other delicacies of a luxurious table, which produce a pleasant life; it is sober reasoning, searching out the grounds of every choice and avoidance, and banishing those beliefs through which the greatest tumults take possession of the soul. Of all this, the beginning and the greatest good is wisdom. Therefore wisdom is a more precious thing even than philosophy; from it spring all the other virtues, for it teaches that we cannot live pleasantly without living wisely, honorably, and justly; nor live wisely, honorably, and justly without living pleasantly.

<sup>50</sup> At <http://www.epicurus.net/en/history.html>.

<sup>51</sup> From <http://www.epicurus.net/en/menoeceus.html>.

Illustrations of the “[willful misrepresentation](#)” of Epicurus’ ideas are the slanderous statements made by some of his contemporary and later Stoics, statements that Diogenes Laërtius records<sup>52</sup> and dismisses with “[these people are stark mad](#).” Perhaps, however, a better expression than “[stark mad](#)” would be “[scurrilous scum](#)”: spreading false rumors about Epicurus and claiming that forged letters were from him, they set a precedent for the “dirty tricks” practiced by similar scum working for the elections of Presidents Nixon and the two Bushs.

An early illustration of clerical hostility to Epicurean ideas (undoubtedly derived from his rejection of concerns about life-after-death) is the following, copied from the same tremendous Epicurean website created by Vincent Cook:<sup>53</sup>

[In the Talmudic Mishnah, one of the authoritative documents of Rabbinical Judaism \[conserved orally and then redacted in about 200 CE, by which time the Pharisees had incorporated Zarathustra’s ideas of life-after-death into Judaism\], there is a remarkable statement in the Tractate Sanhedrin \[Chapter XI\] that defines the Jewish religion in relation to Epicureanism:<sup>54</sup>](#)

[The following have no share in the world to come: He who says that there is no allusion in the Torah concerning resurrection, and he who says that the Torah was not given by Heaven, and a follower of Epicurus.](#)

One might have thought that it would be up to God to decide who has “[a share in the world to come](#)”, but then, the Jewish cleric who wrote the above nonsense was apparently just another quirk in a seemingly endless stream of quacks and dissemblers who claim to speak for the creator of the universe!

The following from *Alexander the Oracle-Monger* by Lucian of Samosata (c.125–180 CE) is appropriate for all such quacks:<sup>55</sup>

[The fellow had no conception of the blessings conferred by that book \[the \*Principal Doctrines\* by Epicurus\] upon its readers, of the peace, tranquility, and independence of mind it produces, of the protection it gives against terrors, phantoms, and marvels, vain hopes and insubordinate desires, of the judgment and candor that it fosters, or of its true purging of the spirit, not with torches and squills and such rubbish, but with right reason, truth, and frankness.](#)

<sup>52</sup> See <http://www.epicurus.net/en/lives.html> - A.

<sup>53</sup> At <http://www.epicurus.net/index.html>.

<sup>54</sup> Copied from <http://www.jewishvirtuallibrary.org/jsource/Talmud/sanhedrin11.html>.

<sup>55</sup> From <http://www.epicurus.net/en/alexander.html>.

Hostility to (and associated distortion of) Epicurus' ideas by subsequent Christians (no doubt because his ideas undermined the clerics' con game) is still evident in Western culture. For example, *The New Oxford American Dictionary* gives for the definition of 'Epicurean':

a disciple or student of the Greek philosopher Epicurus.  
(epicurean) a person devoted to sensual enjoyment, esp. that derived from fine food and drink.

Similarly, *Webster's New World Dictionary of the American Language (Second College Edition)* gives for 'Epicurean':

of Epicurus or his philosophy  
[e] a) fond of luxury and sensuous pleasure, esp. that of eating and drinking, b) suited to or characteristic of an epicure [defined as: a person who enjoys and has a discriminating taste for fine foods and drinks]. Synonym: sensuous.

Admittedly, the goal for dictionaries is to display "common meanings" of words, but both of those common meanings of 'epicurean' are terrible distortions of Epicurus' philosophy. In fact, they distort his philosophy so badly that they are close to the exact antithesis of his ideas – and they are distortions that have been perpetrated for more than 2,200 years by the damnable clerics of Western culture.

An illustration is the "obnoxious bias" (which I mentioned earlier in this post) that appears in Will Durant's 1939 book *The Life of Greece*. In his description of the Greek city of Sybarite in what is now Italy, Durant states (p. 185):<sup>56</sup>

Sybarite became a synonym for epicurean. [According to my dictionary, a 'sybarite' is "a person who is self-indulgent in their fondness for sensuous luxury."] All physical labor was performed by slaves or serfs while the citizens, dressed in costly robes, took their ease in luxurious homes and consumed exotic delicacies.

And yes, Durant's use of 'epicurean' is consistent with dictionary definitions, but given that Durant was writing a history of Greece, shouldn't he (winner of the Pulitzer Prize for Non-Fiction in 1968 and the Presidential Medal of Freedom in 1977) have tried to set the record straight? Or did his overt Christianity blind him to his bias?

---

<sup>56</sup> From <http://www.scribd.com/doc/7351192/Will-Durant-The-story-of-civilization02-The-Life-of-Greece>.

Simultaneously, the word ‘stoical’ wasn’t distorted, presumably because Christians adopted many of the mystical ideas of the Stoics. Thus, the dictionaries referenced above, respectively, define ‘stoical’ as:

- enduring pain and hardship without showing one’s feeling or complaining
- showing austere indifference to joy, grief, pleasure, or pain; calm and unflinching under suffering, bad fortune, etc.

There was, of course, more to the Stoic philosophy than the above-two attributions of a Stoic, but because of their philosophy, Stoics did attempt to maintain calm in the face of adversity, and therefore, the above dictionary definitions of ‘stoical’ are fairly accurate – in contrast to the distortions contained in dictionary definitions for ‘epicurean’.

Almost certainly, the clerical, cultural, and resulting dictionary distortions of Epicureanism were a ruse. In reality, the original hostility to Epicureanism from the Stoics was probably derived, not because of evaluations of how to gain happiness (because the goals and many of the methodologies were similar for both groups), but because the Epicureans concluded (in direct conflict with the Stoics) that, even if gods were to exist, humans should ignore them. Further, along with rejection of gods (or any world-soul), the Epicureans totally dismissed ideas about life-after-death as being not only meaningless but also a terrible and useless burden on life, undermining happiness.

Most likely, therefore, Stoical and clerical hostility to the Epicureans (and subsequent naturalists and Humanists) was because they dismissed the supernaturalists’ worldview as being, in a word, silly. Such dismissal undermined both the Stoics’ confidence in their worldview and what’s most important to all clerics, their ability to continue their parasitic existence, claiming to be representatives of the supernatural while leeching off the producers of the world.

And what blatant, witless hypocrites were and are the religious critics of Epicureanism! What audacity to criticize Epicurus for advocating that pleasures be pursued, when the essence of Plato’s and the Stoics’ mysticism, Christianity, Islam, etc. was and is to pursue “eternal pleasure”! If the truth be sought, their real complaint would undoubtedly be found in Epicurus’ advocating the pursuit of thoughtful pleasures (disregarding data-less ideas

about eternal life) – which then was and is a challenge to all religious delusions.

Nonetheless, some criticisms of Epicurus are appropriate. Although he didn't follow Aristotle's mistaken attempt to identify "the function of man", yet, similar to Aristotle, he failed to investigate the meaning of 'happiness' (or of 'pleasure' and 'pain'). Actually, though, Aristotle did see some of it. Thus, in Section 3 of Chapter 2 of his book *On the Soul*, Aristotle wrote:<sup>57</sup>

It follows that first of all we must treat of nutrition and reproduction, for the nutritive soul is found along with all the others and is the most primitive and widely distributed power of soul, being indeed that one in virtue of which all are said to have life. The acts in which it manifests itself are reproduction and the use of food – reproduction, I say, because for any living thing that has reached its normal development and which is unimpaired, and whose mode of generation is not spontaneous, the most natural act is the production of another like itself, an animal producing an animal, a plant a plant, in order that, as far as its nature allows, it may partake in the eternal and divine. *That [or this] is the goal towards which all [living] things strive, that for the sake of which they do whatsoever their nature renders possible.*

In the quotation immediately above, I added the brackets and the italics to emphasize that Aristotle clearly saw that the prime goal of all life is (in modern terminology) to promote the survival of its genetic code, "for the sake of which they do whatsoever their nature renders possible."

If Aristotle had developed that idea further, perhaps he would have seen not only that 'happiness' arises from living in agreement with "the function of man" but also that the prime function of all humans was not "to live a life of reason" but to promote the survival of their genetic codes. Further, he or Epicurus might have then seen what Spinoza (1632–77) saw in his Ethics (Part III), in the "Proof" of his Proposition LVII:

Pleasure and pain... are states or passions whereby every man's power or endeavor to persist in his being is increased or diminished, helped or hindered.

If to Spinoza's idea is added analyses of human needs, such as those identified by Maslow (1908–70),<sup>58</sup> then improvements upon Aristotle's idea of happiness and Epicurus' ideas on pleasure and pain become available.<sup>59</sup>

---

<sup>57</sup> From <http://classics.mit.edu/Aristotle/soul.html>.

<sup>58</sup> See, e.g., <http://zenofzero.net/docs/EvaluatingEndeavors.pdf>.

<sup>59</sup> See, e.g., <http://zenofzero.net/docs/Happiness.pdf>.

Another valid criticism of Epicurus arises from his failure to engage in politics. His decision was understandable, given the turmoil in Greek politics following the death of Alexander the Great. Yet, if he had developed his ideas of ‘pleasure’ and ‘pain’ further (to see that they are emotions related to successes and failures in pursuit of one’s goals), then he probably would have seen the value to himself and those he considered to be his “family” of attempting to achieve the goal of developing a supportive political structure.

Subsequent Epicureans, however, did see such advantages. For example, as stated in the Wikipedia article on Epicurus:<sup>60</sup>

Elements of Epicurean philosophy have resonated and resurfaced in various diverse thinkers and movements throughout Western intellectual history... His emphasis minimizing harm and maximizing happiness in his formulation of the Ethic of Reciprocity was later picked up by the democratic thinkers of the French Revolution, and others, like John Locke, who wrote that people had a right to “life, liberty, and property.” To Locke, one’s own body was part of their property, and thus one’s right to property would theoretically guarantee safety for their persons, as well as their possessions... This triad, as well as the egalitarianism of Epicurus, was carried forward into the American freedom movement and *Declaration of Independence*, by the American founding father, Thomas Jefferson, as “all men are created equal” and endowed with certain “inalienable rights such as life, liberty, and the pursuit of happiness.”

And yet, in spite of the rancor between Epicureans and Stoics, there were actually two enduring similarities between the two schools. One of these similarities was individualism and was a sign of the times in which the founders of their schools lived (i.e., Epicurus and Zeno the Stoic). The other similarity, which can be described either as boldness or pigheadedness (!), continues to be a sign of our times.

How the individualism promoted by both the Epicureans and the Stoics was a sign (or better, “a product”) of the times follows because, with the death of Alexander the Great in 323 BCE, the old, secure, beneficial (even “bountiful”) political order of Athens began to collapse, requiring people to “look to their own resources” for their security and for what pleasures (or happiness) they could find. The resulting individualism (which, of course, already had famous precedents in Greece, all the way back to Achilles, Hector, Homer, Hesiod, Thales, Pythagoras, etc.) is probably the most

---

<sup>60</sup> At <http://en.wikipedia.org/wiki/Epicurus>.

important legacy that ancient Greece gave to the Western World. Even today, the individualism promoted by most ancient Greek philosophers (including both the Epicureans and the Stoics) is what most distinguishes the West from the collectivism promoted by religious Jews, Muslims, and others (of course including what's left of communism).

As for the commonality of 'boldness' or 'pigheadedness' (the choice of descriptors depending on one's perspective!), the same continues to this day: people adopt a worldview (e.g., similar to Democritus and Epicurus, that everything is natural, or similar to Pythagoras and Plato, that something "supernatural" created the universe and is in control), and from their assumed worldview, people decide how to live their lives. Thus, for all the rancor that developed between the Epicureans and the Stoics, they pursued a similar goal and in a similar manner: they both sought to identify the ingredients for a good life and, following Socrates and Aristotle, they both attempted to achieve that identification *via* reason. The major difference between the two was derived from their different worldviews, just as it is today between scientific humanists and theists (better described, I think, as "unscientific antihumans").<sup>61</sup>

Thus, Epicureans held the views either that there are no gods or, if there were, that they were uninvolved (and disinterested) in human affairs. The Stoics, in contrast, held the views either that the gods were involved and everywhere ("immanent") or that God was, in fact, Nature, and since people were a part of nature, that each person (especially each person's soul) was part of "the divine". As a result, with such different worldviews, the Stoics decided that "the good life" was to align themselves with the desires of "the divine" – and mystic philosophers and clerics were (and still are) always willing (for a price) to tell people how to align themselves with "the divine", whereas the Epicureans decided that "the good life" was to be happy (and philosophers such as Democritus, Eudoxus, Epicurus, et al.) struggled to try to define the ingredients for happiness.

Today, scientific humanists (but not "unscientific antihumans", aka "theists") are more secure in their epistemological choices than were Democritus and Epicurus. Thereby, especially with the past few centuries developments and applications of the scientific method, our naturalistic worldview is more secure. Meanwhile, mystics to this day continue to

---

<sup>61</sup> See <http://zenofzero.blogspot.com/2008/01/dont-let-theists-negate-you-negate-them.html>.

“think” that knowledge of the universe can be gained by “wishful thinking”, from whatever makes them feel good, from their dreams and hallucinations, and similar silliness.

Nonetheless, it should be admitted that both scientists and mystics have boldly or pigheadedly climbed out on similar limbs: neither can be certain that their claimed knowledge is correct. Any scientist, however, will admit to his or her precarious claims to knowledge. In contrast, theists still invariably claim that they are in possession of “the truth”, apparently not knowing what “truth” even means.<sup>62</sup>

As a result of their different epistemologies, scientists continue to grow in their search for knowledge, while religious people stagnate, clinging fast to their claims to “the truth”. As Feynman said:

Looking back at the worst times, it always seems that they were times in which there were people who believed with absolute faith and absolute dogmatism in something. And they were so serious in this matter that they insisted that the rest of the world agree with them. And then they would do things that were directly inconsistent with their own beliefs in order to maintain that what they said was true...

[In contrast,] I have approximate answers and possible beliefs in different degrees of certainty about different things, but I'm not absolutely sure of anything, and of many things I don't know anything about... Some people say, “How can you live without knowing?” I don't know what they mean. I always live without knowing. That is easy. How you get to know is what I want to know...

Bertrand Russell summarized it all, succinctly and well:

The trouble with the world is that the stupid are cocksure  
and the intelligent are full of doubt.

---

<sup>62</sup> See [http://zenofzero.net/docs/T1\\_Truth\\_&\\_Knowledge.pdf](http://zenofzero.net/docs/T1_Truth_&_Knowledge.pdf).