Episode Twenty-Six - The Atoms Are Not Uniform

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Welcome to Episode Twenty-Six of Lucretius Today.

I am your host Cassius, and together with my panelists from the EpicureanFriends.com forum, we'll walk you through the six books of Lucretius' poem, and discuss how Epicurean philosophy can apply to you today. Be aware that none of us are professional philosophers, and everyone here is a self-taught Epicurean. We encourage you to study Epicurus for yourself, and we suggest the best place to start is the book, "Epicurus and His Philosophy" by Canadian professor Norman DeWitt.

Before we start, here are three ground rules.

First: Our aim is to bring you an accurate presentation of classical Epicurean philosophy as the ancient Epicureans understood it, which may or may not agree with what you here about Epicurus at other places today.

Second: We aren't talking about Lucretius with the goal of promoting any modern political perspective. Epicurus must be understood on his own, and not in terms of competitive schools which may seem similar to Epicurus, but are fundamentally different and incompatible, such as Stoicism, Humanism, Buddhism, Taoism, Atheism, and Marxism.

Third: The essential base of Epicurean philosophy is a fundamental view of the nature of the universe. When you read the words of Lucretius you will find that Epicurus did not teach the pursuit of virtue or of luxury or of simple living as ends in themselves, but rather the pursuit of pleasure. From this perspective it is **feeling** which is the guide to life, and not supernatural gods, idealism, or virtue ethics. And as important as anything else, Epicurus taught that there is no life after death, and that any happiness we will ever have must come in THIS life, which is why it is so important not to waste time in confusion.

Now let's join the discussion with today's text:

Latin text location: Approximately **line 333**

Notes on the Text: Munro Notes

(For an Outline of where we have been so far in past discussions, click here.)

Daniel Browne:

Now learn at length the form of these first seeds, these principles of things, how widely different is their shape, of what variety of figure their frame consists. For though many are endowed with a form not much alike, yet all are far from being of the same figure. And no wonder, for since (as I have said) their number is so great that no end, no bound is to be set to them; they ought, for the same reason, to be all of a different contexture, and not fashioned alike of the same form.

Besides, consider well mankind, the scaly fry of silent fish that swim the flood, the verdant trees, wild beasts, the various kinds of birds, such as flock about the banks of pleasant streams, the fountains and the lakes and those who frequent the thick covers of the woods; consider all these in their several kinds, and you will find them all consist of forms different among themselves. 'Tis by nothing else the tender young knows its own Dam, and thus the Dam distinguishes her young, thus we see each creature knows its own kind, no less than men, and so unite together. For often before the gilded temples of the gods a young heifer falls a slain victim beside the alter flaming with incense, and breathes from her heart a reeking stream of blood. The Dam, robbed of her young, beats over the fields and leaves the marks of her divided hoofs upon the pressed grass, and searches every place with careful eyes to find her the young she lost; then stops and fills the branched woods with her complaints, and often returns back to her stall, distracted with the love of her dear young - no more the tender willows, or the herbs freshened with dew, nor can the running streams within the full banks divert her mind, or turn away her care, nor can a thousand other heifers, as they play wantonly over the grass, take off her eye, or ease the pain she feels - so plain it is that she searches for her own, for what she knows full well. And thus the tender kids find by their bleat their horned Dams, and so the sporting lambs know their own flocks, and, as by Nature taught, each hastest to the full dug of its own Dam.

Observe again the various sorts of corn, you'll find each grain, though in kind of the same, not so much alike; but there will be a difference in their figure; and so a great variety of shells, we see, paints the Earth's lap, where the Seas gentle waves feed the most sand along the winding Shore. And thus, by parity of reason, it must follow that the first seeds of things, as they are formed by Nature, not made by Art in any certain figure, must fly about in shapes various and different among themselves.

It is easy for us now to unfold the difficulty why the flame of lightning is much more penetrating than our common fire race from fuel here below. You may give this reason, that the subtle Celestial fire of lightning consist of particles much smaller, and so passes through pores, which are fire, made from toe or wood, cannot.

Besides, Light, we perceive, finds a way through horn, but water does not; because the principles of light are smaller than those of which water is composed. So we see wine passes swiftly through a strainer; on the contrary, heavy oil moves slowly through, either because it is made up of larger seeds, or its principles are more hooked and entangled among themselves. And thus it happens that the several particles cannot be so soon separated from one another so as to flow through the little holes with the same ease. Thus it is that honey and milk pass in the

mouth with a pleasing sensation over the tongue; on the contrary, the bitter juice of wormwood and sharp Centaury torment the palate with a loathsome taste. From whence you collect easily that those things which agreeably affect the sense are composed of particles smooth and round; and such again that seem rough and bitter are bound together by parts more hooked, and closer twined; and therefore they tear the way to our senses, and wound the body as they enter through the skin. In short, such things as are agreeable to our senses, and those that are rough and unpleasant to the touch, are opposite, and formed of a figure very different from one another; lest you should think perhaps that the grating sound of the whetting of a saw was made of parts equally smooth, without the soft notes of a lute, which the musician forms upon the strings, awaked, as it were, by the gentle strokes of his fingers.

Nor are you to suppose that the seeds are of the same form which strike upon our nerves of smell, when a filthy carcass is burning, or when the stage is fresh sprinkled with Cilician saffron, or the altar sweetens the air with the odor of Arabian incense.

And so in colors you must not imagine such as are agreeable and delight our eyes are composed of the same fashioned seeds with those which prick our sense, and force us to weep, or seem dark or ugly, and shocking in appearance to us; for whatever pleases and delights our senses cannot be composed but of smooth particles; and, on the contrary, things that are hurtful and harsh cannot be formed without seeds that are filthy and disagreeable.

There are other seeds, likewise, which you cannot properly call smooth, nor are altogether hooked, with their points bent, but are rather shaped with small ankles, a little jutting out, and may be sad rather to tickle than to hurt the senses; such as the acid taste of the sweet sauce made of the Lees of wine, or the sweet sauce made of the sweetish-bitter root of Elecampane. Lastly, that burning heat, or freezing cold, being formed of seeds of different figures, do affect the body with different sensation our touch is evidence sufficient to evince.

For Touch, the Touch (blessed be the Gods above!) is a Sense of the Body, either when something from without enters through the pores, or something from within hurts us, as it forces its way out, or pleases, as the effect of venery tickles as it passes through, or when the seeds, by striking against each other, raise a tumult in the body, and in that agitation confound the Sense; and this you may soon experience, if you strike yourself in any part with a blow of your hand. It is necessary, therefore, that the Principles of Things should consist of figures very different in themselves, since they affect the Senses in so different a manner.

Munro:

Now mark and next in order apprehend of what kind and how widely differing in their forms are the beginnings of all things, how varied by manifold diversities of shape; not that a scanty number are possessed of a like form, but because as a rule they do not all resemble one the other. And no wonder; for since there is so great a store of them that, as I have shown, there is no end or sum, they must sure enough not one and all be marked by an equal bulk and like shape, one with another.

Let the race of man pass before you in review, and the mute swimming shoals of the scaly tribes and the blithe herds and wild beasts and the different birds which haunt the gladdening watering spots about river-banks and springs and pools, and those which flit about and throng the pathless woods: then go and take any, one you like in any one kind, and you will yet find that they differ in their shapes, every one from every other. And in no other way could child recognize mother or mother child; and this we see that they all can do, and that they are just as well known to one another as human beings are.

Thus often in front of the beauteous shrines of the gods a calf falls sacrificed beside the incense-burning altars, and spurts from its breast a warm stream of blood; but the bereaved mother as she ranges over the green lawns knows the footprints stamped on the ground by the cloven hoofs, scanning with her eyes every spot to see if she can anywhere behold her lost youngling: then she fills with her moanings the leafy wood each time she desists from her search and again and again goes back to the stall pierced to the heart by the loss of her calf; nor can the soft willows and grass quickened with dew and yon rivers gliding level with their banks comfort her mind and put away the care that has entered into her, nor can other forms of calves throughout the glad pastures divert her mind and ease it of its care: so persistently she seeks something special and known. Again the tender kids with their shaking voices know their horned dams and the butting lambs the flocks of bleating sheep; thus they run, as nature craves, each without fail to its own udder of milk.

Lastly in the case of any kind of corn you like you will yet find that any one grain is not so similar to any other in the same kind, but that there runs through them some difference to distinguish the forms. On a like principle of difference we see the class of shells paint the lap of earth, when the sea with gentle waves beats on the thirsty sand of the winding shore. Therefore again and again I say it is necessary for like reasons that first-beginnings of things, since they exist by nature and are not made by hand after the exact model of one, should fly about with shapes in some cases differing one from the other.

It is right easy for us on such a principle to explain why the fire of lightning has much more power to pierce than ours which is born of earthly pinewood: you may say that the heavenly fire of lightning subtle as it is, is formed of smaller shapes and therefore passes through openings which this our fire cannot pass, born, as it is of woods and sprung from pine. Again light passes through horn, but rain is thrown off. Why?

But that those first bodies of light are smaller than those of which the nurturing liquid of water is made. And quickly as we see wines flow through a strainer, sluggish oil on the other hand is slow to do so, because sure enough it consists of elements either larger in size or more hooked and tangled in one another, and therefore it is that the first-beginnings of things cannot so readily be separated from each other and severally stream through the several openings of any thing.

Moreover the liquids honey and milk excite a pleasant sensation of tongue when held in the mouth; but on the other hand the nauseous nature of wormwood and of harsh centaury writhes

the mouth with a noisome flavor; so that you may easily see that the things which are able to affect the senses pleasantly consist of smooth and round elements; while all those on the other hand which are found to be bitter and harsh, are held in connection by particles that are more hooked and for this reason are wont to tear open passages into our senses and in entering in to break through the body.

All things in short, which are agreeable to the senses and all which are unpleasant to the feeling are mutually repugnant, formed as they are out of an unlike first shape; lest haply you suppose that the harsh grating of the creaking saw consists of the elements as smooth as those of tuneful melodies which musicians wake into life with nimble fingers and give shape to on strings; or suppose that the first-beginnings are of like shape which pass into the nostrils of men, when noisome carcases are burning, and when the stage is fresh sprinkled with Cilician saffron, while the altar close by exhales Panchaean odors; or decide that the pleasant colors of things which are able to feast the eyes are formed of a seedlike to the seed of those which make the pupil smart and force it to shed tears or from their disgusting aspect look hideous and foul. For every shape which gratifies the senses has been formed not without a smoothness in its elements; but on the other hand whatever is painful and harsh has been produced not without some roughness of matter.

There are too some elements which are with justice thought to be neither smooth nor altogether hooked with barbed points, but rather to have minute angles slightly projecting, so that they can tickle rather than hurt the senses; of which class tartar of wine is formed and the flavors of elecampane. Again that hot fires and cold frost have fangs of a dissimilar kind wherewith to pierce the senses, is proved to us by the touch of each.

For touch, touch, ye holy divinities of the gods, the body’s feeling is, either when an extraneous thing makes its way in, or when a thing which is born in the body hurts it, or gives pleasure as it issues forth by the birth-bestowing ways of Venus, or when from some collision the seeds are disordered within the body and distract the feeling by their mutual disturbance; as if haply you were yourself to strike with the hand any part of the body you please and so make trial. Wherefore the shapes of the first-beginnings must differ widely, since they are able to give birth to different feelings.

Bailey:

Now come, next in order learn of what kind are the beginnings of all things and how far differing in form, and how they are made diverse with many kinds of shapes; not that but a few are endowed with a like form, but that they are not all alike the same one with another. Nor need we wonder; for since there is so great a store of them, that neither have they any limit, as I have shown, nor any sum, it must needs be, we may be sure, that they are not all of equal bulk nor possessed of the same shape. Moreover, the race of men, and the dumb shoals of scaly creatures which swim the seas, and the glad herds and wild beasts, and the diverse birds, which throng the gladdening watering-places all around the riverbanks and springs and pools,

and those which flit about and people the distant forests; of these go and take any single one you will from among its kind, yet you will find that they are different in shape one from another. Nor in any other way could the offspring know its mother, or the mother her offspring; yet we see that they can, and that they are clearly not less known to one another than men. For often before the sculptured shrines of the gods a calf has fallen, slaughtered hard by the altars smoking with incense, breathing out from its breast the hot tide of blood.

But the mother bereft wanders over the green glades and seeks on the ground for the footprints marked by those cloven hoofs, scanning every spot with her eyes, if only she might anywhere catch sight of her lost young, and stopping fills the leafy grove with her lament: again and again she comes back to the stall, stabbed to the heart with yearning for her lost calf, nor can the tender willows and the grass refreshed with dew and the loved streams, gliding level with their banks, bring gladness to her mind and turn aside the sudden pang of care, nor yet can the shapes of other calves among the glad pastures turn her mind to new thoughts or ease it of its care: so eagerly does she seek in vain for something she knows as her own. Moreover, the tender kids with their trembling cries know their horned dams and the butting lambs the flocks of bleating sheep: so surely, as their nature needs, do they run back always each to its own udder of milk. Lastly, take any kind of corn, you will not find that every grain is like its fellows, each in its several kind, but that there runs through all some difference between their forms. And in like manner we see the race of shells painting the lap of earth, where with its gentle waves the sea beats on the thirsty sand of the winding shore. Wherefore again and again in the same way it must needs be, since the first-beginnings of things are made by nature and not fashioned by hand to the fixed form of one pattern, that some of them fly about with shapes unlike one another.

It is very easy by reasoning of the mind for us to read the riddle why the fire of lightning is far more piercing than is our fire rising from pine-torches on earth. For you might say that the heavenly fire of lightning is made more subtle and of smaller shapes, and so passes through holes which our fire rising from logs and born of the pine-torch cannot pass. Again light passes through horn-lanterns, but the rain is spewed back. Why? unless it be that those bodies of light are smaller than those of which the quickening liquid of water is made. And we see wine flow through the strainer as swiftly as you will; but, on the other hand, the sluggish olive-oil hangs back, because, we may be sure, it is composed of particles either larger or more hooked and entangled one with the other, and so it comes about that the first-beginnings cannot so quickly be drawn apart, each single one from the rest, and so ooze through the single holes of each thing.

There is this too that the liquids of honey and milk give a pleasant sensation of the tongue, when rolled in the mouth; but on the other hand, the loathsome nature of wormwood and biting centaury set the mouth awry by their noisome taste; so that you may easily know that those things which can touch the senses pleasantly are made of smooth and round bodies, but that on the other hand all things which seem to be bitter and harsh, these are held bound together with particles more hooked, and for this cause are wont to tear a way into our senses, and at their entering in to break through the body.

Lastly, all things good or bad to the senses in their touch fight thus with one another, because they are built up of bodies of different shape; lest by chance you may think that the harsh shuddering sound of the squeaking saw is made of particles as smooth as are the melodies of music which players awake, shaping the notes as their fingers move nimbly over the strings; nor again, must you think that first-beginnings of like shape pierce into men’s nostrils, when noisome carcasses are roasting, and when the stage is freshly sprinkled with Cilician saffron, and the altar hard by is breathing the scent of Arabian incense; nor must you suppose that the pleasant colours of things, which can feed our eyes, are made of seeds like those which prick the pupil and constrain us to tears, or look dreadful and loathly in their hideous aspect. For every shape, which ever charms the senses, has not been brought to being without some smoothness in the first-beginnings; but, on the other hand, every shape which is harsh and offensive has not been formed without some roughness of substance.