

# Implications of "The Swerve" (Lucretius) and of Primary and Secondary Attributes (In both the Letter to Herodotus and in Lucretius)

**Post by "Cassius" of September 6, 2018 at 4:07 PM**

As to the implications of the discussion in [Epicurus' Letter to Herodotus](#) and in Lucretius, I have a couple of comments:

In the Epicurean texts the parallel to quantum indeterminacy is in the section of Lucretius referencing the swerve, which I attribute to Epicurus (even though the text for it is lost) because I feel certain that Lucretius would never expand beyond the master on something so important. All the context indicates to me that he gets this directly from Epicurus, and this is one of those areas that like DeWitt suggests we should just presume that Epicurus thought was a topic that was more advanced and thus not included in the letter to Herodotus. If I had to speculate more I would say that Epicurus probably presented the topic with more explanation than did Lucretius, and that he probably added much more to the argument for its existence in addition to Lucretius' "it MUST be there else where would we get free will, and why would the atoms not just fall in a straight line." He would at least have explained in this context that this is an example of deductive reasoning and probably have gone off into the explanation of why deductive reasoning is valid in this instance. Probably even referencing canonical issues of how we determine what is "true" and what is not.

But in the matter of combining the references to the swerve to the issue of primary and secondary qualities, I think we have an area that is ripe for confusion, given my belief that quantum indeterminacy and the swerve have to be kept in context and their limits clearly in mind. As I always do I refer back to AA Long's "Chance and Natural Law In Epicureanism" for the argument that the Epicureans emphasized the extremely minor deviation of the swerve. The reason for that emphasis is that we must remember that the swerve does not "break through" into ordinary affairs and cause chaos in the things we see around us. If so, the entire philosophy would fall to the ground. The truth is that what we see around us in normal affairs is almost totally determinable and predictable from prior events. Yes, one day the solar system or our universe will explode into its component parts, as all things that come together eventually dissipate, but in the interim MOST things at our level of sensation (other than the free will / higher intelligence in animals) is almost totally predictable.

To me that means that rather than the issue of primary/secondary qualities being a reference to indeterminacy, the meaning is probably the OPPOSITE -- the issue that I think Lucretius and Epicurus were stressing is how the things around us at our level of sensation have a strong level of determinacy that exists through natural means, and NOT through divine guidance. The issue that they needed to present to the world was the alternative to religion, and they had to

explain how what we see in the regular motions of the stars and planets and developments here on earth arise from the motions of combinations of atoms, with the things we see changing, but with the atoms beneath the surface remaining unchanged except for their combinations and "un-combinations" and related movements.

So to say this another way, the real importance of this section is not to draw analogies to indeterminacy, which can be used as menace to confident planning and thinking about the future, but the opposite -- to provide an explanation of how the atoms work and how they combine into emergent properties and rise to the level of our senses (which is what I think the "shores of light" references in Lucretius mean). In other words, this is the explanation of how the things we see can be transient and changing, while the means by which they operate (the elements) remain eternally unchanged.