

The Ontological Status of Sensible Qualities for Democritus and Epicurus

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Abstract: One striking oddity about Democritus and Epicurus is that, even though Epicurus' theory of perception is largely the same as that of Democritus, Democritus and his followers draw skeptical conclusions from this theory of perception, whereas Epicurus declares that all perceptions are true or real. I believe that the dispute between Democritus and Epicurus stems from a question over what sort of ontological status should be assigned to sensible qualities. In this paper, I address three questions: 1) Why were Democritus and his followers skeptical? 2) How did Epicurus modify Democritus' metaphysics in order to avoid these skeptical conclusions? and 3) How successful was he? My answers: 1) I argue that Democritus allows only the *intrinsic* properties of atoms into his ontology, and then runs into skeptical difficulties because of the relativity of perception. 2) I propose that Epicurus modifies Democritus' ontology by allowing dispositional and relational properties as real properties of bodies. Sensible qualities are conceptualized as dispositional properties of bodies to cause certain experiences in percipients. 3) I argue that Epicurus does not run into the same problems as Democritus. Finally, I consider how my interpretation of Epicurus' ontology helps to make sense of his claim that all perceptions are *alêthes*--'true' or 'real.'

1. Introduction

One striking oddity about the views of Democritus and Epicurus is that, even though Epicurus' theory of perception is largely the same as that of Democritus, Democritus and his followers draw skeptical conclusions from this theory of perception, whereas Epicurus declares that all perceptions are true or real.¹ I believe that this epistemological dispute between Democritus and Epicurus is at base metaphysical: it stems from a question of what sort of ontological status should be assigned to sensible qualities. On this point, I agree with past interpreters, such as David Sedley² and David Furley.³ But I do not think that the exact nature of the dispute between Democritus and Epicurus has been properly characterized in their interpretations. In this paper, I will be concerned to answer three questions: 1) Why were Democritus and his followers

¹ Epicurus' dictum is usually translated as "All perceptions are true." The Greek term translated here as "true," *alêtheis*, can mean either "true" or "real," however, and the context of the report does not decisively support one reading or the other. The exact force of Epicurus' dictum is quite murky, and much of the debate in the literature centers on how to interpret *alêtheis*.

² Sedley, (1988)

³ David Furley, 1993 'Democritus and Epicurus on sensible qualities,' in *Passions and Perceptions: Studies in Hellenistic Philosophy of Mind, Proceedings of the Fifth Symposium Hellenisticum*, edd. J. Brunschwig & M. Nussbaum, Cambridge University Press, 1993

skeptical? 2) How did Epicurus modify Democritus' metaphysics in order to avoid these skeptical conclusions? and 3) How successful was he?

I will answer them as follows: 1) I will argue that Democritus allows only the *intrinsic* properties of atoms into his ontology, and then runs into skeptical difficulties because of the relativity of perception, since, on this theory, sensible qualities are not real properties of bodies. This analysis will undercut those interpreters, such as Sedley, who say that it is Democritus' reductionism—specifically, his reduction of perceptual states to physical states—that leads to his skepticism. 2) I will propose that Epicurus modifies Democritus' ontology by allowing dispositional and relational properties as real properties of bodies. 3) I will argue, *contra* Furley, that Epicurus' modification successfully sidesteps Plutarch's charge that Epicurus' theory of perception runs into exactly the same problems as that of Democritus. Finally, I will consider how my interpretation of Epicurus' ontology helps to make sense of his claim that all perceptions are true/real.

2. Democritus: Dogmatist or Skeptic?

There is a puzzling tension in the reports we have of Democritus' philosophy. On the one hand, Democritus produces a sophisticated metaphysical system, in which the only *per se* existents are atoms and void, with all else being explained in terms of the modifications of these. And, as Theophrastus reports,⁴ Democritus has a detailed theory of perception, trying to explain how the *pathê* associated with each sense arise as a result of the causal interaction of atoms with the sense-organs. For instance, the taste "bitter" is explained as a result of sharp atoms tearing the tissue of the tongue, "sweet" as

⁴ Theophrastus, *de sensibus*.

the soothing action of round and fairly large atoms on the tongue.⁵ The subscription to such a detailed metaphysical system would appear to place him firmly in the dogmatist's camp.

On the other hand, Democritus says many things that make him appear to be a skeptic: "in reality we know nothing--for truth is in an abyss"⁶ and "It has often been demonstrated that we do not grasp how each thing is or is not."⁷

Before going on to discuss *why* Democritus was a skeptic, it would be prudent to discuss what is meant here by "Democritus' skepticism." To simply call somebody a "skeptic" without explaining what is meant by it is well-nigh useless, since the term could designate anybody from Sextus Empiricus to Madelyn Murray O'Hair to the debunkers of paranormal phenomena.

At least two broad types of skepticism can be distinguished: *ontological skepticism* (O-skepticism from now on) and *epistemological skepticism* (E-skepticism).⁸ O-skepticism has to do with the existence or non-existence of certain objects or classes of objects. At least three different stances can be delineated: the affirmation of the existence of the objects in question (O-dogmatism), the denial of the existence of the objects in question (*negative* O-dogmatism, following Sextus' usage, although this is often called "skepticism,") and neither affirming nor denying the existence of the objects in question (O-skepticism proper).

E-skepticism has to do with the possibility of knowledge, and, as with O-skepticism, can be global or restricted to a certain domain. Likewise, three different stances in the epistemological realm can be marked out: that it is

⁵ for Theophrastus' discussion of the sense of taste, see *de sens.* 65-70. The Epicurean explanation of the sense of taste follows Democritus' very closely. See Lucretius, DRN 4 615-626

⁶ Diogenes Laertius, *Lives of the Philosophers* VII, 72 (68 B 117 DK)

⁷ Sextus Empiricus, *Against the Mathematicians* VII, 136 (68 B 10 DK)

⁸ These terms, and the other distinctions I draw in this section, are not original to me. I have borrowed this highly useful terminology from R.J. Hankinson's book, *The Sceptics*, (Routledge, London and New York, 1995)

possible to acquire knowledge (E-dogmatism), that it is impossible to acquire knowledge (*negative* E-dogmatism), and neither affirming nor denying that knowledge is possible (E-skepticism proper).

The type of skepticism that is in question here is a *global epistemological skepticism*, i.e., it concerns whether it is possible to have knowledge at all. The two quotes above, especially when Democritus says that “in reality we know nothing,” point to a *negative* E-dogmatism. And Democritus certainly was read this way by some. The Epicureans thought that Democritus’ doctrines led to skepticism and hence to *apraxia* (actionlessness), as will be discussed below. Some followers of Democritus developed what they took to be his skepticism still further. For instance, Metrodorus of Chios moved from negative E-dogmatism to E-skepticism proper, saying, “we know nothing, not even that we know nothing.”⁹

These considerations are not decisive, however. When interpreting their rivals’ positions, philosophers in antiquity tended to use the principle of charity even more sparingly than do philosophers today. And opponents of Democritus’ atomism would be happy to proclaim that his system is self-defeating, that atomism, if true, would make it impossible to know that atomism is true. Some of Democritus’ saying that appear to rule out the possibility of knowledge could be hyperbole, and others can be read as merely stating that knowledge is *extremely difficult* to attain, not impossible,¹⁰ which is perfectly consistent with O-dogmatism.

⁹ *Against the Mathematicians* VII, 135

¹⁰ His division between the ‘legitimate’ knowledge that comes from the intellect and the ‘bastard’ knowledge that comes through the senses, for instance, (*Against the Mathematicians* VII, 138) suggests that Democritus thinks that it is only the senses that are unreliable, but that knowledge is nonetheless possible. The dialogue between the sense and reason, however, (*Against the Mathematicians* VII, 136) makes such a division between knowledge derived from the senses and from reason alone problematic. Kirk, Raven and Scofield give an interesting suggestion about how the two might be reconciled. (cf. G.S. Kirk, J.E. Raven, and M. Scofield (1983), pp. 412-413)

The exact extent of Democritus' E-skepticism is underdetermined by the evidence we have. Fortunately, the main thesis of this paper does not depend on settling this question. I will explain in what way Democritus' ontology raises severe epistemological problems. My thesis is neutral on the question of whether Democritus thinks that knowledge is merely difficult or impossible to attain. My guess (and it is no more than that) is that Democritus had not satisfactorily worked out these questions for himself, that the tension between his dogmatism and his skepticism was never decisively resolved. Thus we have the conflicting reports on his epistemology and the varying interpretations of his system by his followers and rivals.

3. The Source of Democritus' Skepticism

The key to understanding Democritus' skepticism is his belief that sensible qualities are, in some sense, unreal; i.e., it is his negative O-dogmatism on sensible qualities that leads to his E-skepticism. Democritus says,

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.¹¹

That Democritus thinks ontological qualities are somehow unreal is clear; *why* he thinks so is not. Several suggestions have been advanced.

3a: Furley's position

Furley believes that Democritus' position is an inheritance from Eleatic philosophy, particularly Melissus' argument in fragment 8—sensible qualities come into being and perish, but what is real must be immutable; hence, sensible qualities are not real.¹² This view gains some plausibility from the fact that

¹¹ *Against the Mathematicians* VII, 135 (68 B 9 DK)

¹² Furley (1993), p. 93

Democritus' atoms look much like bits of Parmenidean Being. However, there is little textual support for Furley's conjecture that it is the changeability of perceptual qualities that makes them unreal. Instead, the sources we have report that it is the *relativity* of perceptible qualities—*e.g.*, that honey tastes sweet to some and bitter to others—that makes Democritus declare the honey no more sweet than bitter, and hence neither sweet nor bitter.

3b: Wardy and Purinton's position

Similar problems afflict R.B.B. Wardy's and Jeff Purinton's position that Democritus denies the reality of sensible qualities because he denies the reality of *all* things macroscopic.¹³ This is supposed to follow, as in Furley, from Democritus' Eleaticism: Democritus, following Parmenides and Melissus, denies the reality of all things composite and changeable, and the macroscopic is both. Although Democritus was certainly influenced by Parmenides' criticism of non-being, I find Wardy's suggestion that Democritus is a crypto-apologist for Eleaticism sorely lacking in textual support.

More critically, Democritus would be contradicting what he says elsewhere if he entirely excludes macroscopic bodies from his ontology. Democritus says that *cosmoi* are compounds of atoms that "come into being and perish." He also describes the soul, the sun and the moon as compounds of atoms.¹⁴ The exact ontological status of macroscopic bodies for Democritus is a difficult and fascinating topic, and Wardy has done a great service by pointing to texts that open up this problem, *e.g.*, all macroscopic bodies are compounds, and

¹³ R.B.B. Wardy, 'Eleatic Pluralism,' (1988) *Archiv für Geschichte der Philosophie*, 1988, 125-146, Purinton (1991). Wardy is mainly concerned with the unreality of all things macroscopic for Democritus; Jeff Purinton may not, as far as I can tell, agree with all aspects of Wardy's position, but he does appropriate key parts of Wardy's argument and apply them explicitly to the question of the ontological status of secondary qualities.

¹⁴ DL IX 44 Wardy does acknowledge these passages, but does not give an adequate reply, other than to say that almost all of the ancient commentators and modern interpreters have misread Democritus as seriously subscribing to the existence of such entities that he describes in detail, which (according to Wardy) he does not.

one source has Democritus saying, in addition to sweet and bitter being by convention, “*compound* is by convention.”¹⁵ Whatever Democritus meant if he did say “*compound* by convention,” however, he could *not* have meant that macroscopic bodies simply don’t exist.

3c: Sedley’s position

David Sedley, on the other hand, argues that it is Democritus’ reductionism that leads to the exclusion of sensible qualities from his ontology, and that Epicurus is trying to resist Democritus’ reductionism in order to avoid his skepticism. Sedley writes,

Democritus’ bottom-up theory, atomism...has the demerit that the world now turns out to be in reality utterly different from the way it is perceived to be: all the colours, states of mind, etc., prove to be not real...but just arbitrary...constructions placed by the experiencing subject on atomic aggregates which in the last analysis are quite devoid of such properties. In current jargon, Democritus is an eliminative materialist, who holds that phenomenal states are *nothing* over and above physical states, and infers that they are unreal.¹⁶

Although I think that Sedley is quite right to call Democritus an eliminative materialist vis-a-vis sensible qualities,¹⁷ there are still some serious problems concerning his position. As Furley correctly notes,¹⁸ there is nothing *arbitrary* about the sensations (*pathê*) that I experience as a result of the causal interaction between atoms and my sense-organs. Given the current state of my sense-organs and the types of atoms that impinge upon them, the fact that, for instance, I taste the flavor “sweet” when I eat honey is a predictable and probably even necessary consequence of that interaction.

¹⁵ Plutarch, *Adv. Colot.* 110E-F

¹⁶ Sedley (1988) p. 298-299

¹⁷ Actually, in some ways Sedley’s terminology is unfortunate. Democritus does not think that secondary qualities are real properties *of bodies*, but merely subjective *pathê*. In this sense he is an eliminative materialist. But he almost certainly does *not* believe, as the phrase ‘eliminative materialist’ suggests, that the mental is unreal, or that “folk psychology” is an outmoded theory, on a par with phlogiston theory, that ought to be junked.

¹⁸ Furley (1993), p. 75

Secondly, and more importantly, Sedley seems to be confusing reductionism with eliminativism. Contrary to what Sedley says, it is not from a belief that phenomenal states are nothing over and above physical states that Democritus infers that they are unreal. There *are* some properties of bodies that *can* be identified with properties of atoms—Theophrastus lists properties such as weight and hardness—but it is precisely these properties which are *not* eliminated, but thought of as real properties of bodies. Rather, it is because secondary qualities *cannot* be identified with physical states that Democritus infers that they are unreal. Thus, it is not Democritus' reductionism by itself that leads to his eliminativism, but his reductionism combined with his view that sensible qualities are not real properties of bodies.

4: *Ou Mallon* Arguments and the Nature of Sensible Qualities

This brings us back to the question of why Democritus does not view sensible qualities as real properties of bodies. Sextus Empiricus explicitly states that it is the *relativity* of perception that leads to Democritus' abolition of sensible qualities: "from the fact that honey appears sweet to some and bitter to others, Democritus...infers that it really is neither sweet nor bitter, and pronounces in consequence the formula *ou mallon*..."¹⁹ *Ou mallon* means "no more," and Democritus uses it to say that the honey is no more sweet than bitter, because it is, in reality, neither.

The use of *ou mallon* arguments by Democritus is highly significant, and it helps us to understand the sources of his dismissal of secondary qualities as unreal. *Ou mallon* arguments of this type were common in Greek philosophy, although the uses to which they were put appear bewilderingly large. Protagoras says that the wind is, in itself, no more hot and cold, because it is *both*

¹⁹Sextus Empiricus, *Outlines of Pyrrhonism* I, 213

hot and cold. He avoids contradiction by saying that it is hot for one person, and it is cold for another.²⁰ Plato is no skeptic, but he often uses *ou mallon* arguments to show that some property cannot be truly instantiated in the phenomenal world. Plato frequently employs the principle that for any thing to be truly F, it must be F without qualification. So, for instance, for something to be truly just, it must be always just, not just at some times and unjust at others. Or, to use another example, Socrates says that a beautiful maiden is not truly beautiful, because, although she is beautiful in comparison to monkeys, she is not beautiful in comparison to the gods.²¹ Later skeptics have an epistemological reading of the *ou mallon* principle. They start from the fact of the relativity of perceptual qualities, or of value predicates, and argue that we can no more say that the thing is F than not-F, because we have no criterion with which to judge between the reports and decide which property the object itself has.²²

Despite this great diversity among the different uses of the *ou mallon* argument, all of those who use the argument have a common interest in what a thing is “by nature.” (*phusis*) And what this seems to mean, generally, is what a thing is in and of itself, i.e., what it is intrinsically. Thus, although Democritus is reported to have attacked Protagoras’ epistemology,²³ their two positions—whether the wind is both hot and cold or neither hot nor cold—are not inconsistent, although they do not entail one another. To say that the wind is both hot (for me) and not-hot (for you) is consistent with it being, intrinsically, neither. And this difference in stating the matter shows the different orientations of Protagoras and Democritus. Since, for Protagoras, “man is the measure of all things,”²⁴ the only kind of truth to which we have access is relativized truth.

²⁰ *Theaet.* 152b

²¹ *Greater Hippias* 289 b-d

²² *Outlines of Pyrrhonism* 1 188

²³ *Adv. Colot.* 1108F, 68 B 156 DK

²⁴ *Outlines of Pyrrhonism* 1 216

Democritus, conversely, is interested in how the world is in and of itself. For something to have a property in its *phusis* is for it to have the property intrinsically. The theme that is consistent throughout the various *ou mallon* arguments is the move from the observation that some property of an object differs relative to different observers, times, or conditions (a is F to me, but not-F to you, or F under certain circumstances, but not-F under others) to the conclusion either that the object does not, in itself, have that property, or that we cannot know whether the object has that property or not.

Thus, Democritus decides that honey is, in reality, neither sweet nor bitter, because sweetness and bitterness are only relative, and not intrinsic, properties: Democritus allows into his ontology only the *intrinsic* properties of bodies. As noted before, Democritus sharply distinguishes between such primary qualities as weight or hardness, and secondary qualities, like sweetness. The former really belong to bodies, while the latter do not. Theophrastus reports that Democritus thought that, of the secondary qualities

none has a *phusis* but all are the *pathê* of the sense as it is altered...A sign that they are not in nature is that they do not appear the same to all animals: what appears sweet to us appears bitter to others...Furthermore, [people] themselves change in their temper according to their affections and their age.²⁵

To say that secondary qualities do not exist in reality is not, in itself, skeptical. As noted before, it is a form of negative dogmatism, since it is an assertion about what really does and does not exist. Nonetheless, it is easy to see how the denial of the reality of secondary qualities would, at the least, have some skeptical force for Democritus. There is a radical discontinuity between the properties to which we have access, and which must form the basis of all our knowledge, and the properties that exist in reality. Democritus says, "One must

²⁵ *de Sens.* 63-4

learn...that Man is severed from reality,"²⁶ and he most probably has in mind that the *pathê*, which must form the basis of all knowledge, are found not to be a part of reality, i.e., they are merely subjective. In fact, almost all of the reports furnished by the senses (for instance, "The honey is sweet") turn out upon inspection to be false. We *think* that the honey is really sweet, but the sweetness is not in the honey at all—it is simply a change in our sense-organ.²⁷

This account of the basis for Democritus' abolition of sensible qualities may appear open to the following objection: despite the use of *ou mallon* arguments and the transition in the reports we have from the *relativity* of sensible qualities to their *unreality*, Democritus certainly does not exclude relations from his ontology, as my statement that Democritus "allows into his ontology only the *intrinsic* properties of bodies" suggests. After all, Aristotle reports that Democritus tries to explain the differences in compounds by appealing to the different possible spatial arrangements of the elements,²⁸ and Democritus must certainly have held, for instance, that some atoms are really bigger than others.

My argument, however, does not imply that Democritus thinks that atoms do not bear relations to one another. When I say that Democritus "allows into his ontology only the *intrinsic* properties of bodies," if I were to mean that Democritus denies that atoms stand in relations to one another, such as "being to the left of," then my view would be wrong. Democritus certainly *did* think that

²⁶ *Against the Mathematicians* VII, 137 (68 B 6 DK)

²⁷ The complaint of the senses against reason shows that Democritus is well aware of the possibly self-stultifying nature of his philosophy: "Wretched mind, do you take your evidence from us and then try to overthrow us? Our overthrow is your downfall." (reported in Galen, *On Medical Experience* XV 8, 68 B 125 DK) There is a painful irony in Democritus' philosophy: his atomism was a response to the Eleatic philosophers, such as Parmenides and Melissus, who denied the reality of change and the phenomenal world. Atomism was supposed to provide an answer to the Eleatic challenge, as well as provide economical and comprehensive causal explanations for the features of the world. Democritus' atomism, however, undercuts the authority of the senses as a source of information about the world, which in turn leads to the collapse of reason, including the constructions of reason, such as atomism.

²⁸ *Metaphysics* I, 985b10-20

atoms bear relations to one another; however, he does *not* think that *relational properties* are real properties of atoms, in any robust sense.

To see this distinction more clearly, consider “mere Cambridge change.” There are all sorts of relations I stand in, which I wouldn’t want to call “relational properties” of mine—for instance, imagine that I am sitting 2 feet to the left of somebody. If the person stands up and walks away, that relation would change without, I think, any property of mine changing. In a similar way, Democritus can admit that there are *relations*, without thinking that he needs to believe that the atoms have *relational properties*. So what properties *do* the atoms really have for Democritus?: only their *intrinsic* properties: size, shape, hardness, and (perhaps) weight.

5. Epicurus’ Modification of Democritus’ Ontology

In Plutarch’s *Adv. Colot.*, Epicurus’ contemporary and compatriot Colotes is reported to have charged that Democritus’ doctrines lead to full-blown skepticism and make life impossible:

The first objection he [Colotes] brings against Democritus is that, when he says that every single thing is no more such than such, he has thrown our life into chaos.²⁹

Epicurus tries to avoid this skepticism and the resulting *apraxia* by staunchly defending the reality of sensible qualities. Yet how does he do so? And how successful is he? The surviving evidence is sketchy. It is clear that Epicurus *does* defend the reality of sensible qualities, but *how* he does so is not as clear.

If Democritus runs into skeptical difficulties because of the relativity of perception, the simplest solution is to say that sensible qualities, although relative, are nonetheless *real*. And I believe that this is the solution to which the Epicureans avail themselves. The Epicureans certainly do admit relational and

²⁹*Adv. Colot.* 1108F

dispositional properties into their ontology. Lucretius includes among his list of accidental properties, “servitude and liberty, poverty and riches, war and peace...”³⁰ If “servitude” is admitted to one’s ontology as a real property, it cannot be an *intrinsic* property, because a person is not enslaved *per se*, but only because of certain very complex relationships that hold between him and other people.

Epicurus himself, in his discussion of justice, makes it clear that justice, although real, does not exist *per se*: “Justice was not a thing in its own right, but [exists] in mutual dealings in whatever places there [is] a pact about neither harming one another nor being harmed.”³¹ He elsewhere says that the same type of action can be just in some circumstances, unjust in others, or just at one time, unjust at another.³²

The mere fact that Epicurus and Lucretius write about properties, such as being enslaved and being just, that must be relational and not intrinsic, may not be sufficient to show that the Epicureans explicitly and self-consciously include relative properties in their ontology—perhaps they did not realize the ontological commitments involved in their talk about slavery and justice. We have other sources, however, which show that the Epicureans were aware of what they were doing. Furthermore, the Epicureans introduced these relational properties for the express purpose of defeating skeptical *ou mallon* arguments. Polystratus, the third scholarch of the Garden, makes a sustained and convincing defense of the reality of relational and dispositional predicates. He is not concerned here with the relativity of secondary qualities, though, but with the relativity of value predicates:

³⁰ *De Rerum Natura* I 455-456

³¹ *Vatican Saying* XXXIII

³² *Vatican Saying* XXXVII

Do you think...that fair, foul and all other manner of belief are falsely believed in, just because unlike gold and similar things they are not the same everywhere? After all, it must stare everybody in the face that bigger and smaller are also not perceived the same everywhere and in relation to all magnitudes. So too with heavier and lighter. And the same applies also to other powers, without exception. For neither are the same things healthy for everybody, nor nourishing nor fatal...but the very same things are healthy and nourishing for some yet have the opposite effect on others. Therefore either they must say that these too are false—things whose effects are plain for everybody to see—or else they must refuse to brazen it out and battle with what is evident...Relative predicates do not have the same status as things said not relatively but in accordance with something's own nature. Nor does the one kind truly exist but not the other. So to expect them to have the same attributes, or for the one kind to exist but not the other, is naïve.³³

Thus, it may be true that cyanide is deadly poison for me, and not poisonous for some race of aliens. But that does not make cyanide “no more deadly than not deadly,” so that I become skeptical about the deadliness of cyanide *for me*. If I really thought so, I should swallow some and see what happens, thus incrementally reducing the number of skeptics in the world. The deadliness of the cyanide for me is a real property, albeit a relational one, *of the cyanide*, not something that is merely conventional or subjective.

An important sentence in the preceding passage is Polystratus' assertion that the same defense of the reality of relational predicates applies to “powers (*dunameis*) without exception,” i.e., dispositional properties. Thus, it is a real property of gunpowder that it will explode when a match is put to it—assuming that it is not damp and there is enough oxygen present—of steel that it will cut flesh when sharp, and so on. Epicurus shares with Democritus a causal theory of perception, where *pathê* are caused by the interaction of atoms with sense-organs, yet at the same time he wants to defend the reality of sensible qualities. He can accommodate both if sensible qualities are thought of as complicated

³³ Polystratus, *On Irrational Contempt*, 23.26-26.23

dispositional properties that cause certain *pathê* within the percipient's soul when interacting with the percipient's sense-organs under certain conditions.

Besides the preceding indirect textual support, there is a key passage from Plutarch's *Adversus Colotes*, our fullest source for how Epicurus responds to the threat of skepticism from Democritus' atomism, which shows that Epicurus thinks that colors are not intrinsic properties of bodies. Plutarch notes that in Epicurus' work *Reply to Theophrastus*, "Epicurus himself...says that colors are not inherent in the nature of bodies but are generated according to certain arrangements and positions in relation to the sight."³⁴ If we assume that (i) Epicurus believes colors are real properties of bodies (as he certainly does), and (ii) intrinsic properties and relational properties are contradictories (i.e., all properties of a thing must be either intrinsic or relational but cannot be both), and (iii) Epicurus is aware of (i) and (ii) when he explicitly denies that colors are inherent in bodies, then it follows (iv) Epicurus believes that colors are relational properties of bodies.³⁵

Plutarch furnishes more textual evidence that Epicurus thinks of colors as relational properties, when he quotes Epicurus as saying, "I don't see how it's possible to say that these things have color in the dark."³⁶ It's hard to see why Epicurus would say this if he thinks that colors are intrinsic properties, which would still be present in the object even if there were never anybody to perceive them. In that case, for a object to be white in a dark room would simply be for it to have white-colored eidola, although one may not be able to perceive them under those conditions.

³⁴ *Adv. Colot.* 1110 C

³⁵ (iv) does not strictly follow as a logical deduction, but unless Epicurus were to have a seriously defective noetic structure, I believe that it follows *psychologically* from (i)-(iii). Of course, a deductive proof of colors being relational properties would be easy enough to construct from (i) and (ii) alone with some slight tinkering to (i), but since the paper is on what Epicurus thought about their ontological status, the less elegant psychological version will have to do.

³⁶ *Adv. Colot.* 1110C

If Epicurus thinks that colors are *dispositional* properties, however, then this quote makes sense. Epicurus view that it's impossible to understand how things can be colored in the dark would still be mistaken, even if they are dispositional qualities. After all, one could easily say that for a object to be red in the dark is for it to be such that it *would* cause certain *pathê* under certain conditions, conditions which do not currently obtain. Nonetheless, it's easy to see how one could be led to say that something doesn't really have a dispositional property when it is in conditions such that it is impossible for it to exercise its power, e.g., is a piece of wood underwater flammable or not? It depends on what sort of counterfactuals one is willing to build into the notion of flammability, so that one could reasonably say either that the wood is flammable or that it is not.

With the sensible qualities other than colors, one is much less tempted to make them intrinsic properties of bodies. In any case, the accounts in Epicurus and Lucretius of the other senses support the notion that their sensible qualities are also dispositional properties, not intrinsic ones. The other senses are much more explicitly assimilated to touch than is sight, and given this assimilation, it is hard to see how something would be intrinsically bitter, pungent, or raucous for Epicurus any more than something could be intrinsically prickly or soothing.

6. How Successful Is Epicurus' Solution?

In addition to having the above textual support, I think that this interpretation gains favor on the grounds of the principle of charity. For it allows Epicurus to retain Democritus' causal theory of perception while avoiding the unpalatable skeptical consequences he wishes to avoid. I will argue for this by showing that the following charge against Epicurus, raised by Plutarch and echoed by Furley, does not succeed: that Epicurus must ultimately concede along

with Democritus that objects are “no more [*ou mallon*] this way than that.” After showing this, I will discuss how my interpretation helps to make sense of Epicurus’ notorious claim that “All perceptions are *alêtheis*.”

Plutarch contends that the Epicurean theory falls prey to the same sort of skeptical difficulties that afflict Democritus. Plutarch notes that Colotes’ main objection against Democritus is that Democritus says bodies are in reality “no more this than that.” Plutarch says that Epicurus himself, however, admits the relativity of perceptual properties in a way that undermines his claim that they are real properties of objects. Plutarch gives several examples. For instance, in his work the *Symposium*, Epicurus concedes that there is a mixture of natures in wine such that a certain amount of it may effect one person one way, another person another way, and that wine is neither universally cooling nor universally heating. And, as we discussed above, Plutarch notes that in Epicurus’ work *Reply to Theophrastus*,

Epicurus himself...says that colors are not inherent in the nature of bodies but are generated according to certain arrangements and position in relation to the sight; and with this statement he concedes that a body is no more colored than uncolored. And he has already written earlier on (and I quote):

‘But also, quite apart from this section, I don’t know how one should say that these things have color when they are in the dark.’

“Yet often, when the surrounding air is of the same degree of darkness, some perceive a distinction of color and others don’t, because of weakness of sight; moreover, on entering a dark house we see no sight of color, but after a short interval we do.”³⁷

Furley thinks that Plutarch’s argument is effective. He says,

The object in a dark interior is seen as coloured by one person, uncoloured by another. It cannot be an effect of the light, since the light is the same. So the object itself, Plutarch concludes, must be no more uncoloured than it is coloured: the perception of colour must be in the mind or sense-organ of the beholder. If then, Plutarch could show that colour is not a real

³⁷ *Adv. Colot.* 1110 C-D. Furley notes that there is some dispute over how much of the passage is actually quoted from Epicurus; the sentence in single quotes is definitely Epicurus, whereas the second sentence might be. I accept Furley’s claim that both sentences are from Epicurus.

property of the object of vision, but an interactive experience in the mind or sense-organ of the beholder, he would have gone a long way towards making his case and saddling the Epicureans with the fatal proposition, *ou mallon toion e toion* [no more this way than that].³⁸

Although Furley thinks that it is a “severe blow to the theory,” Plutarch’s objection to Epicurus has very little force if my interpretation is correct. Plutarch’s objection rests on the fact, which Epicurus happily concedes, that the same object, in the same conditions, can appear differently to different percipients. Plutarch concludes from this that sensible qualities are not real properties of objects for Epicurus. But this would follow *only* if, for something to be a *real* property of an object, it must be an *intrinsic* property. But the passage from Polystratus explicitly denies this. It is important not to conflate two very different pairs of distinctions: intrinsic vs. relative, on the one hand, and objective vs. subjective, on the other. The fact that some property is *relative* does not make it thereby *subjective*. Cyanide is deadly *to me*, although maybe not to all organisms. Similarly, the object in the room *really has* the property of causing certain *pathê* in certain people under certain conditions.

Of course, regarding secondary qualities as dispositional properties does not resolve all possible skeptical difficulties that might arise from the relativity of perception. The same atomic state can cause differing perceptual states, depending upon the condition of the percipient. More importantly, the same perceptual state can be caused by differing atomic states. Since this is so, there may be a problem with drawing inferences from perceptual experience about the extra-mental properties of bodies, other than the following uninformative inference: “Whatever caused me to have this experience F, has the dispositional property of causing the experience F under conditions C, which include my own bodily states.” This is a serious objection, which I will table for the moment,

³⁸ Furley (1993), 89-90

since the possible Epicurean replies will become clearer shortly, when we have considered the famous Epicurean dictum, “All perceptions are *alêtheis*” and how viewing secondary qualities as dispositional qualities helps to make sense of it.

7. “All perceptions are *alêtheis*.”

One of Epicurus’ most notorious claims, of his many notorious claims, was that “all sense impressions are *alêtheis*.” As noted earlier, *alêthês* can mean either “true,” or “real.”³⁹ Either reading of *alêthês* runs into problems. It is very difficult to square the reading of *alêthês* as “true” with the following passage, reported in Diogenes Laertius:

Our seeing and hearing are facts, just as having a pain is...The figments of madmen and dreaming are *alêtheis*. For they cause movement, whereas the non-existent does not move anything.⁴⁰

If we translate *alêthês* as “true,” we encounter two major problems: 1) It is difficult to see in what sense dreaming and the figments of madmen can be regarded as true. Epicurus said that when Orestes saw the Furies pursuing him, although they were not, his perception was *alêthês*.⁴¹ 2) The comparison of hearing and seeing to pain, and the argument that figments are *alêthês* because they cause movement, both strongly support the reading of *alêthês* as “real,” not “true.” To argue that figments are real on the grounds that they cause movement is cogent. To argue that figments are *true* because they cause movement is absurd. Furthermore, Epicurus contrasts figments, which are *alêthês* because they cause movement, with “what does not exist” (*to mê on*), which shows either that Epicurus is using *alêthês* here to mean “real,” or that his entire epistemology

³⁹ For a good discussion of the issues involved beyond the brief summary provided here, see G. Striker, “Epicurus on the truth of sense impressions,” in *Archiv für Geschichte der Philosophie* 59 (1977), 125-42, and C.C.W. Taylor, “‘All perceptions are true,’” in *Doubt and Dogmatism: Studies in Hellenistic Epistemology*, edd. M. Schofield, M. Burnyeat, J. Barnes, (Oxford, 1980) 105-24

⁴⁰ Diogenes Laertius, *Lives of the Philosophers*, X 32

⁴¹ *Against the professors* 8.63

is based upon a substantial equivocation upon a term. The principle of charity demands that we try to find an interpretation of Epicurus which avoids such an obvious blunder.

There are also problems with taking *alêthês* to mean real, however. David Furley nicely sums up the problems with this reading, saying that, although it is appealing, it “is inconsistent with the sense given to his [Epicurus’] theory by his supporters and opponents...He was generally taken to be asserting that sense impressions report something *true*, i.e. some true propositions about the external world.”⁴² That is, sense-impressions are supposed to be *informative*, and so Epicurus cannot mean that all sense-impressions are “real” simply in the sense of being mental contents, since they are supposed to be the basis for all our knowledge of the world. In fact, the Epicureans made fun of the Cyrenaic idea that all we had acquaintance with were private sense-experiences.⁴³

Furley’s position that sense-impressions convey propositions, however, besides encountering the problems mentioned above, also conflicts with Epicurus’ description of sense-impressions as *alogos*—non-rational. I take this to mean that sense-impressions, in and of themselves, have no propositional content. It is only after our interpretation of them that propositional content—and hence, the possibility of error, as Epicurus notes—enters in: “And error would not exist if we did not also get a certain other process [besides sensation] within ourselves, one which, although causally connected, possesses differentiation (*dialêpsin*).”⁴⁴ The context suggests that Epicurus, in bringing up this other process, is distinguishing it from sensation by claiming that it has *dialêpsis*, which (presumably) sensation does not. The word here translated as

⁴² Furley (1993) p. 91

⁴³ *Adv. Colot.* 1120 C-F

⁴⁴ *Ep Hdt.* 51

“differentiation,” *dialêpsis*, can mean simply a distinction of parts,⁴⁵ but, as do many words that come from the verb *lambanô*, to grasp, it also often has cognitive overtones of some sort of *mental* grasp⁴⁶ *Dialêpsis* can mean “distinction,” but also “distinguishing in thought,” “judgment,” or “opinion.” Thus, Epicurus thinks that error only arises when, by a process other than perception *per se*, we use sensations, categorizing them in order to comprehend or interpret the world, differentiating among objects and ascribing them properties. The sensations as such do not contain any propositional content; they do not say *that* the world is this way or that. This gloss of the passage in the *Letter to Herodotus* is supported by a passage in Sextus Empiricus, reporting Epicurus’ view: “The peculiar function of sensation is to apprehend only that which is present to it and moves it, such as color, not to make the distinction (*to diakrinein*) that the object here is a different one from the object there. Therefore all impressions are *alêtheis*.”⁴⁷

My interpretation of Epicurus allows for perceptions *per se* not to have any propositional content and nonetheless to give us information about the external world. If all perceptions are the result of the interaction of external objects with sense-organs, then, even if in itself a perception has no propositional content, it puts us in a causal relation with the external world and is truly the effect of some *dispositional* property of the body with which we are interacting. Epicurus does not conceive sensations simply as private, passive sense-data. Instead, they are movements. Accordingly, they both cause other things to move, as noted above, and are themselves caused by interactions with the external world. As such, they can be informative. Sextus reports, “Epicurus used to say that all sensibles are

⁴⁵ e.g., in Aristotle *Progression of Animals* 705a25, where Aristotle claims that animals without parts are unable to move.

⁴⁶ For instance, the Epicurean technical term *prolêpsis*, or “preconception,” and, famously, the Stoics’ “kataleptic impressions,” which were supposed to be infallible impressions which were the foundation for knowledge.

⁴⁷ *Against the Professors* 7.210.

alêtheis, and that every impression is the product of something existent and *like the thing which moves the sense*"⁴⁸ That is, not only are sensations effects, but we can reason from these effects about what sorts of things caused them.

Of course, this still leaves some major hurdles for Epicurus to leap, as he tries to explain how we get from such non-rational effects of complex dispositional properties of external bodies to knowledge of the world expressed in propositional form. To engage in a full-blown defense of Epicurean epistemology would go well beyond the scope of this paper, but something should be said about why this causal relationship is not utterly trivial and uninformative. If my interpretation is correct, then Epicurus would affirm, for instance, that the sky is really blue—the blueness of the sky is not merely subjective.

However, for the sky to be really blue is for it to have the dispositional property of causing people “to be appeared to bluey” under certain well-defined conditions.⁴⁹ This may seem trivial and uninformative. As noted above, conceiving of secondary qualities as dispositional states does not get around all of the possible skeptical arguments from the relativity of perception. Two points can be made about this problem:

1) Even if this analysis does not get around all possible skeptical difficulties, it does not follow that it is incorrect or useless. At the very least, conceiving of secondary qualities as dispositional qualities gets around Democritus’ worry that, because secondary qualities are relative, they are somehow not real properties of bodies, but merely subjective.

⁴⁸ *Against the Professors* 8.63 I emphasize the crucial phrase.

⁴⁹ Of course, to speak in this way is grossly anachronistic—Epicurus almost certainly did not have a well-developed adverbial notion of perceptual states (although the Cyrenaics and others used similarly contorted phrases when discussing perception). At this time, however, I do not want to get into issues of exactly what experiences of seeing blue are for Epicurus. On any reading, *pathê* are changes in the soul of the percipient which are caused by the interaction of sense-organs with external objects, and this is sufficient for the point I am making.

2) Experiences of bitterness, blueness, etc., are not caused *merely* by bodies having the dispositional properties to cause such states, although it is true that they do. They have these dispositional properties in virtue of other complicated structural properties of the atoms and groups of atoms; e.g., the taste bitter is caused by rough and hooked atoms tearing up the tongue. The various colors we see are caused by the arrangement and shape of the atoms on the surfaces of bodies.⁵⁰ Thus, these dispositional properties are tied systematically to complex structural properties of the atoms themselves and the bodies that are constituted by the atoms. This is probably why the atomists often identify having a secondary quality straightforwardly with some atomic property—if the secondary quality is a dispositional quality, and the dispositional property can be explained entirely in terms of some set of atomic properties, it is not difficult to see why the secondary quality would be identified with the atomic property.

Thus, although Epicurus still needs to do a lot of explaining in order to get from non-rational *pathê* to knowledge of the world, he is entitled to think that the information we receive via secondary qualities is not trivial, because the different secondary qualities are tied to the underlying atomic structures of bodies.⁵¹

8. Conclusion

Despite Epicurus' great debt to Democritus, he found it necessary to enrich Democritus' ontology significantly in order to avoid the unpalatable skeptical consequences that he thought resulted from Democritus' ontology. The fundamental difference between them was not, as many believe, that Democritus was a reductionist and Epicurus a non-reductionist, but that Democritus believed

⁵⁰ Cf. the scholion to *Ep. Hdt.* 44, where Epicurus is reported to have said that the color of bodies is dependent upon the arrangement of the atoms.

⁵¹ It is worth noting here that Epicurus does not believe that we get from non-rational *pathê* alone to knowledge of the world. Repeated causal interaction with the world causes us to develop *prolēpseis*, or “preconceptions,” which allow us to sort our sensations into meaningful and informative categories.

that only the intrinsic properties of bodies were real, whereas Epicurus was much more permissive in what he was willing to predicate of things. Epicurus was not a mere slavish imitator of Democritus in his ontology but tried to work through problems that he had inherited as a philosophical descendant of Democritus. And in this case, at least, I believe that his modification of Democritus' ontology represents a genuine improvement.