

'ALL PERCEPTIONS ARE TRUE'¹

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Epicurus is reported by Diogenes Laertius (X 31) as having said that perceptions (or perhaps 'the senses' or 'sense-impressions', which are also possible meanings of Epicurus's own term *aisthēseis*) are among the criteria of truth; this report is confirmed by two passages of Epicurus himself, at DL X 50-2 and 147. By itself this need imply nothing more than the merest common sense; of course perception and the senses must have some role in determining what is the case and what is not, and hence which statements are true and which are false. But the matter is not so straightforward. For, firstly, *aisthēsis* and related words are used in a wider range of contexts than 'perceptions' and its cognates: e.g. cases of hallucination are sometimes said to involve *aisthēsis* (see below). Secondly, Epicurus is also said to have maintained the much more obviously controversial thesis that every *aisthēsis* is true. In this paper I shall try to establish what he meant by those statements, to clarify the relation between them, and to consider their wider implications for his epistemological and physical theory.

I turn first to the doctrine that all *aisthēseis* are true, for which the evidence has been helpfully collected by Gisela Striker [133]. No version of it occurs in the texts of Epicurus himself, but the following doctrines, or versions of the same doctrine, are attributed to him by other writers.

1. Every *aisthēton* is true (*M VIII 9: Ep. ta men aisthēta panta elegen alēthē kai ontā . . . pantōn de tōn aisthētōn alēthōn ontōn; 63: Ep. elege men panta ta aisthēta einai alēthē, kai pasan phantasiai apo huparchontos einai . . .*). Cf. *ibid.* 355, every *aisthēton* is reliable (*bebaion*).

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2. Every *aisthēsis* and every *phantasia* is true (Usener [13], no. 248: Aetius; Usener [13], p. 349, 5–6: Aristocles *apud* Eus.).
3. Every *phantasia* occurring by means of *aisthēsis* is true (Plu. *Col.* 1109 ab).
4. Every *phantasia* is true (*M* VII 203–4, 210).
5. *Aisthēsis* always tells the truth (*M* VIII 9: *tēn te aisthēsīn . . . dia pantos te alētheuēin*; 185: *mēdepote pseudomenēs tēs aisthēseōs*). Cf. the passages in Cicero referred to by Striker, to the effect that the senses are always truthful.

It appears likely that most of these formulations differ from one another only verbally. Thus Sextus is the only writer cited above to use the term *aisthēton* ('sense-content'²), and his use of the term strongly suggests that it is interchangeable with *phantasia* ('appearance'). This appears particularly from *M* VII 203–4, where the thesis that *phantasia* is always true is supported by a number of examples from the various senses, e.g. 'The visible (*horaton*) not only appears (*phainetai*) visible, but in addition is of the same kind as it appears to be', which are summed up in the words 'So all *phantasiai* are true.' Here, then, what is true of *aisthēta* is taken to be true of *phantasiai* as a whole; further evidence that Sextus regards the terms as coextensive is given by *M* VIII 63–4, where he represents Epicurus as counting Orestes' hallucination of the Furies as a case of *aisthēsis*, and therefore as true. Again, in the passage from Aristocles cited above, quoted by Eusebius, *aisthēsis* is treated as interchangeable with *phantasia*, since the thesis introduced by means of both terms (i.e. 2 above), is expressed in the course of the passage firstly as the thesis that every *aisthēsis* is true and then as the thesis that every *phantasia* is true. If these writers treat *aisthēton* and *phantasia* as strictly co-extensive terms, they misrepresent Epicurus, who distinguishes *phantasiai* of the mind (e.g. appearances in dreams) from *phantasiai*

² I use the term 'sense-content' as roughly equivalent to the Greek *aisthēton*, to indicate the informational content of a perceptual or quasi-perceptual act, without commitment to the objective reality of that content. For example, if some honey tastes sweet to me, I have an *aisthēton* of the sweet, whether or not the honey really is sweet. I interpret Epicurus as holding that in every instance of *aisthēsis* we have some sense-contents, as regarding hallucinations as instances of *aisthēsis*, and as saying of cases of perceptual illusion such as that of the oar's looking bent that the sense-content is true, though some belief which we may form as a result of having that sense-content may be false.

of the senses (DL X 50-1). In strict Epicurean doctrine, then, *aisthēta* are a species of *phantasiai*. But the misrepresentation is not crucial, since Epicurus clearly holds that both sensory and non-sensory *phantasiai* are always true (ibid.: for the Epicurean view of the 'truth' of dreams, see below). In the passages from Sextus cited under 5 above, where *aisthēsis* is said always to tell the truth and never to lie, it is possible to render the word as 'sense' (equivalent to 'the senses'), 'perception', 'sensation' (i.e. the faculties thereof), 'the (particular act of) perception', or 'the (particular) sensation (occurring in the perceptual context)'. But however we render it, the thesis that *aisthēsis* always tells the truth is presented either as following immediately from the central thesis that all *aisthēta* are true, or as entailing it, or as restating it. The precise logical relation of the two theses (if indeed they are two) is impossible to determine from these passages; by the same token, their intimate logical interconnection is displayed by both. Our evidence, then, indicates that ancient writers regularly attribute to Epicurus or the Epicureans the doctrines that every *phantasia* is true and that every *aisthēton* is true. Though strictly *aisthēta* are a species of *phantasiai*, differentiated by their causation via the sense-organs, some later sources appear to make no distinction between the terms. In some reports the doctrine that every *aisthēton* is true appears to be expressed as 'Every *aisthēsis* is true'; in others, where *aisthēsis* may mean 'sense' or 'faculty', the thesis that *aisthēsis* always tells the truth is inextricably interwoven with the thesis that all *aisthēta* are true.

We find, then, in the texts of Epicurus the doctrine that sense-contents are among our criteria for discriminating what is true from what is false, and we find ascribed to Epicurus by later writers the doctrine that all sense-contents are true. This ascription is confirmed by Epicurus' remarks at DL X 50-2, though the doctrine is not explicitly stated there. Some of these writers clearly regard Epicurus as holding that the former doctrine implies the latter, and as maintaining the latter because he was committed to it by the former. Thus Aristocles (loc. cit.) says that people who hold that every *aisthēsis* and every *phantasia* is true do so from the fear that, if they said that any *aisthēseis* were false, they would have no criterion nor any sure or reliable standard (sc. of truth). Similarly Plutarch interprets the Epicurean thesis that all *phantasiai* arising by means of *aisthēsis* are true as leading to

the consequence that all perceptible objects are a mixture of all the qualities which they seem to have in any conditions of perception; the Epicureans accept *that*, he says, because if they didn't they admit that their standards would go to pot and their criterion altogether disappear (*Col.* 1109 a-e). Did Epicurus in fact hold that if *aisthēseis* are among our criteria of truth, then *aisthēseis* must themselves be true? And if he did, can we see why?

This second question may appear surprising. To some people it may just seem obvious that any criterion of truth must itself be true, and anyone who thinks so will naturally assume that it must have been obvious to Epicurus also. But so far from being obvious, it is not even true. By 'criterion' we understand 'something used in discriminating, judging, or determining'.³ In general, it is plainly false that, whenever we distinguish F from G (where 'F' and 'G' stand in for names of properties), that by means of which we distinguish is either F or G. This may be so in some cases, e.g. we may discriminate straight from crooked lines by applying a straight ruler (*kanōn*). But, while it is true that Epicurus used the term *kanōn* as equivalent to *kritērion* (*apud* DL X 129: his work dealing with criteria of truth was entitled *Kanōn*, DL X 31), it would be gratuitous to suppose that he reached his doctrine by generalizing from this single instance in the face of the multitude of counter-instances where the terms *kanōn* and *kritērion* are equally at home. Thus, in the required sense of 'criterion' taste is the criterion of sweet and sour, but taste (i.e. the sense of taste) is itself neither sweet nor sour; sight is the criterion of black and white, but is itself neither black nor white. The general point holds also for the special case of distinguishing truth from falsity. Thus sometimes we find out the truth about some matter by looking, but it does not make sense to say that looking is true (or that it is false). Thus to attribute to Epicurus either the general assumption that any criterion of F-ness must itself be F, or the special assumption that any criterion of truth must itself be true, is to attribute to him a fairly obvious falsehood. There is, however, no need to attribute either assumption to him. Rather, the evidence indicates that he held that all *aisthēseis* must be true because of the particular sort of criterion that *aisthēseis* are, and that his reasons for holding that a criterion of *that* sort must

³ See Striker [21].

itself be true were better than the untenable assumptions which we have just dismissed.

The sort of criterion in question is *evidence*. *Aisthēseis* are used in discriminating truth from falsehood in that they provide evidence on the basis of which we judge (*krinomen*) what is true and what false, just as the evidence of witnesses in a court is used by the judge to determine the truth of the matter in dispute. And just as the evidence of the witnesses must itself be true in order that a sound verdict be arrived at, so the evidence of *aisthēseis* must be true if we are to attain to knowledge of the world. The choice of forensic terminology is not, of course, accidental, but rather reflects Epicurus' own descriptions of the role of *aisthēseis*. They are treated as witnesses in a legal action, whose word may be challenged or accepted, and whose evidence may be used to establish the claims of other parties as true, or convict them as false. So at DL X 146: 'If you fight against all *aisthēseis*, you will not have anything by reference to which you can pass judgement on those which you say have spoken falsely.' Here *aisthēseis* say things, and the sceptic is inclined to condemn them as lying witnesses. (*Anagōgē*, 'referral', can also have a legal sense, that of referring a dispute to an arbitrator, as in a third-century treaty from Delphi.⁴) The forensic analogy is reflected in the Epicurean terminology for the process by which beliefs are confirmed or refuted by the evidence of *aisthēseis*; a belief is true if it is 'witnessed for' (*epimartureitai*) or 'not witnessed against' (*ouk antimartureitai*), false if it is witnessed against or not witnessed for (DL X 50-1; cf. M VII 210-16). *Aisthēseis*, then, are reliable witnesses; nothing can convict them of falsehood (*dielengksai*). Since what they say is true, we may use it as evidence (*sēmeia*) from which to arrive by inference at conclusions about what we are not directly aware of (ibid. *hothen kai peri tōn adelōn apo tōn phainomenōn chrē sēmeiousthai*; cf. DL X 38, 87, 97, 104).

It is, then, the forensic analogy of the evidential role of *aisthēseis* which commits Epicurus to the doctrine that *aisthēseis* are true, rather than the implausible assumptions which I dismissed earlier. That analogy itself does not support the thesis that *all aisthēseis* must be true: judicial procedures depend on testimony, though witnesses frequently lie, misremember etc. The stronger thesis

⁴ E. Schwyzer, *Dialectorum Graecarum Exempla Epigraphica Potiora* (Leipzig, 1923), 328a, II A 17.

rather depends on the *basic* character of the evidence of *aisthēseis*. *Aisthēseis* have to be true if we are to have any knowledge or well-founded beliefs about the world; for all such knowledge and belief is inferential, justified ultimately by appeal to the evidence which *aisthēseis* provide. If we challenge any piece of that evidence itself, we can do so only by appeal to further evidence of the same kind, but we can give no reason why we should prefer one piece of evidence to another. Hence the only alternative to total scepticism is undifferentiated acceptance of *aisthēseis* as true (DL X 146–7). Epicurus might then seem to present an early version of the familiar empiricist doctrine of the foundations of knowledge; sense-contents provide the immediate, i.e. non-inferential data by inference from which we arrive at, or at least justify, beliefs about physical objects, other persons etc. But in fact the empiricist doctrine aligns rather awkwardly with the forensic analogy; for on the empiricist view, as represented by Locke or Berkeley, we have immediate and complete knowledge of our sense-contents themselves, and proceed to more or less risky inferences from that knowledge to knowledge and/or belief about the external world. In terms of the forensic analogy, the fundamental empiricist thesis that we have immediate and incorrigible knowledge of our sense-contents ('ideas' in some versions, 'sense-data' in others) would surely have to be expressed as follows, that our sense-contents are totally reliable witnesses *as to what they themselves say*. So if a sense-content says 'My evidence is as follows: *p*', there can be no doubt that that is what its evidence is, namely that *p*. But what we want from a witness is not just to be sure what his evidence is, but in addition to be sure that his evidence is *true*. We want a guarantee not merely that he says that *p*, but that it is true that *p*, and it is clear that the empiricist thesis that we have incorrigible knowledge of what his evidence is cannot provide such a guarantee. So if Epicurus' thesis that all *aisthēseis* are true is interpreted just as the thesis that we cannot be mistaken about what *aisthēseis* we have, it cannot do justice to the evidential role which he assigns to *aisthēseis*.

This brings me to the central question of this paper, viz. what did Epicurus mean by his thesis that all *aisthēseis* are true? We have seen that a superficially plausible account of that thesis, viz. that we have incorrigible awareness of our sense-contents, is

insufficient to account adequately for the fundamental status of the thesis in Epicurus's epistemology. We might, of course, be forced to conclude that Epicurus failed to recognize the inadequacy; but at least it provides us with a motive to look for another interpretation which will represent the thesis as complying more closely with Epicurus' intentions. In this connection we must take notice of two connected points which I have hitherto ignored. Firstly, I have taken it for granted that Epicurus' thesis was that all *aisthēseis* are true, and have raised the question how that is to be understood. But, as is well known, *alēthēs* may in context mean 'real' rather than 'true', or may be ambiguous between the two senses. Moreover, there is some evidence to suggest that the Epicurean thesis may have been that all *aisthēseis* are in some sense real. Secondly, Epicurus appears to have insisted that every *aisthēsis*, in contrast with belief, is *alogos*. Whatever that means precisely, there is a prima-facie inconsistency in the claim that what is lacking in *logos* is none the less true, since truth and falsity surely apply in the first instance to *logos* or *logoi*, to speech or things said. This difficulty might be thought to support the suggestion that *alēthēs* should in this context be understood as 'real' rather than as 'true'. My next task, therefore, is consideration of that suggestion; in the course of that consideration I hope to explain what Epicurus had in mind in describing *aisthēseis* as *alogoi*.

The suggestion is derived from two ancient sources, DL X 32 and M VIII 9. Diogenes' statement comes at the end of his summary, paraphrased above, of the role of *aisthēseis* as a criterion. After describing how thoughts (*epinoiai*) are formed by the operation of various mental processes on *aisthēseis*, he adds 'And the visions (*phantasmata*) of madmen and those which occur in dreams are *alēthē*, for they have effects (*kīnei*); but that which is not has no effect' (*to de mē on ou kīnei*). Here the thought seems plainly to be that only something real can have any effect on anything. But dreams and visions manifestly have effects, most obviously on the behaviour of those subject to them. So dreams and visions are real things. Sextus is even more explicit. 'Epicurus' he says, 'said that all *aisthēta* are *alēthē* and things that there are (*onta*); for he made no distinction between calling something *alēthes* and calling it existent' (*huparchon*). It is noteworthy that both contexts also contain a reference to the thesis that *aisthēsis* is *alogos*. In Diogenes

this occurs in 31 immediately after the list of criteria, including *aisthēseis*. Diogenes's words are 'For every *aisthēsis*, he (i.e. Epicurus) says, is *alogos* and receptive of no memory; for it is not stimulated (*kineitai*) by itself, nor, being stimulated by something else, can it add or take away anything.' Sextus' report is similar: 'And *aisthēsis*, which is receptive of the things presented to it, neither taking away nor adding nor altering anything, since it is *alogos*, always tells the truth and receives what there is just as it is in reality (*kai houtō to on lambanein hōs eiche phuseōs auto ekeino*). But while all the *aisthēta* are *alēthē*, the things we believe (*ta doxasta*) differ, and some are true and some false . . .' It is tempting to offer the following explanation of the thesis that *aisthēsis* is *alēthēs* and of its connection with the doctrine that *aisthēsis* is *alogos*. The thesis is simply the thesis that every instance of *aisthēsis*, including dreams and hallucinations under *aisthēseis* since those states consist in the reception of impressions similar to those of perception proper, is a real event, consisting in the reception by the physical organism of a pattern of physical stimulation (in terms of the atomistic theory of mental functioning, a bombardment of large numbers of *eidōla* in very rapid succession). *Aisthēsis* is *alogos* in that *aisthēsis* is the purely physical event of the reception of stimulation; being purely physical it lacks any mental content, and hence cannot be true or false. It merely reproduces the external stimulation without addition or subtraction, as the wax reproduces the impression of the signet which is pressed into it. Truth and falsity belong to the judgements which we make about the physical process of stimulation, characterizing it as the perception of this or that. This interpretation is tempting in so far as it explains how *aisthēseis* could sensibly be described both as *alētheis* and as *alogoi*, in so far as it does justice to the evidence which suggests that *alētheia* should be taken in this context as 'reality', and in so far as it frees Epicurus' theory from such absurdities as the claim that the madman's hallucinations are true.

But these advantages are bought at too high a price. This account suffers from the basic defect of having altogether abandoned the evidential role of *aisthēseis*. For on this account *aisthēseis* themselves don't say anything; they are purely physical events whose occurrence is reported, correctly or incorrectly, in thought. But a witness who says nothing is no witness; and if anything in this area is clear, it is that Epicurus regards *aisthēseis*

as witnesses to the reality of things. Further, this interpretation is inadequate even with respect to those very passages adduced in its support. The identification of its inadequacy will, I hope, lead us to a more correct understanding of the thesis that all *aisthēseis* are *alētheis*.

If we look again at *M VIII 9*, we see that Sextus' first point is that Epicurus made no distinction between 'true' and 'real'; consequently he defined 'true' as 'that which is as it is said to be' and 'false' as 'that which is not as it is said to be'. This amounts to a conflation of the notions of 'true' and 'real', and of 'false' and 'unreal'. 'True' and 'false' apply properly to what is said or thought; consequently an account of truth along these lines ought to take the form of the Aristotelian formula 'Truth is saying of what is that it is, and of what is not that it is not' (*Metaph.* 1011^b 26). 'Real' and 'unreal', on the other hand, characterize entities or states of affairs as in the Epicurean formula, but characterize them independently of what is thought or said. The conflation of the two pairs of notions in the Epicurean formula suggests that Epicurus is not interested in any contrast between a report and what it reports, but in the systematic correlation between a true report and the reality of what it reports. Consequently Sextus' report moves immediately from the claim that all *aisthēta* are *alēthē kai onta* to the assertion that *aisthēsis* always tells the truth, since it represents the reality which impinges on it exactly as it is, without addition or diminution, the whole being finally summed up as 'While all the *aisthēta* are true, some things that we believe are true and some false.' It is clear that the contrast, central to the interpretation we are considering, between purely physical *aisthēsis*, which is reported, and thought, which reports it, is inconsistent with Sextus' evidence in this passage. For *aisthēsis* itself, Sextus tells us, reports the physical stimulation which gives rise to it. The special status of *aisthēseis* as witnesses is due to the fact that the reports which *aisthēsis* gives represent that physical stimulation with perfect accuracy. And the accuracy of those reports is guaranteed by the fact that *aisthēsis* is *alogos*. What this seems to mean is that *aisthēsis* lacks the capacity to form any judgement about the pattern of stimulation presented to it; its function is restricted to representing it as it is. But that representation has a content to which truth and falsity are applicable; the special feature of that representation is that in fact

it is always true. We might perhaps be inclined to identify *aisthēta* with the physical stimulation, which is real, as distinct from *aisthēsis*, which reports that stimulation, and which is true. But that would be to impose on the passage a sharper distinction than the text warrants. In view of the conflation of the concepts of truth and reality which occurs in this passage (see above), it is much more plausible that no clear distinction is drawn between the putative bearers of those predicates, *aisthēsis* and *aisthēton*. This is supported by the evidence presented earlier that Sextus uses the term *aisthēton* interchangeably with *phantasia*. The latter term denotes an act of mental representation or the content of such an act, 'something's appearing so and so'. It is, therefore, unlikely that in this passage Sextus uses the term *aisthēton* to denote a purely physical entity, *in contrast with* a kind of mental representation.

This leaves us with the evidence of DL X 32. Now it is undisputed that the point there is that the *phantasmata* of madmen and dreamers are real, since they have effects, and only real things can have effects. But this is ambiguous as it stands. For it is unclear whether what is meant is that the states of having an hallucination or having a dream are real states, since those states have effects, e.g. they produce movements and utterances on the part of the people who have them, or that the objects present to the mind in those states are real objects, since those objects have effects, e.g. they induce beliefs on the part of those to whom they are present. The use of the word *phantasmata*, rather than *phantasiai*, might suggest the latter, but the lack of any systematic distinction between terminology for mental acts and that for objects of such acts makes it unsafe to rely on the terminological point alone. The evidence of two further passages dealing with hallucinations does indeed support the latter interpretation against the former, but indicates at the same time that Diogenes' very compressed report omits a central feature of Epicurus' view of such phenomena.

The passages in question are Plu. *Col.* 1123 bc and *M* VIII 63–4. Plutarch chides Epicureans for holding that none of the 'sights and extraordinary things' which occurs in dreams and visions is 'an optical illusion or false or insubstantial' (*parorama . . . oude pseudos oude asustaton*), but that they are all *phantasiai alētheis* and physical objects (*sōmata*) and shapes which come from the

surrounding environment. Here the conflation between act and object is very marked: a class of phenomena is said to be neither false nor insubstantial, but actually to consist of physical objects *and* real/true *phantasiai*. It is clear that the physical reality of the objects of dreams and visions is a central Epicurean dogma. Like the objects of any other mental processes, these objects are a sort of physical objects, viz. films of atoms emitted from the surfaces of three-dimensional aggregates of atoms. But the conflation between act and object apparent in this passage should prompt us to ask whether the Epicurean thesis that such objects are *alētheis* was simply the thesis that they are real (i.e. physical) objects. Is it not likely that Epicurus also held some view about the way these items were represented in the *aisthēsis* of the dreamer or the visionary, a view which was also expressed in the thesis that those objects are *alētheis*? The passage from Sextus clearly indicates that this is the case. ‘Epicurus,’ he says, ‘said that all the *aisthēta* are *alēthē*, and that every *phantasia* arises from something that there is, and is just as the thing which stimulates the *aisthēsis*’ (*toiautēn hōpoion esti to kinoun tēn aisthēsin*). This sentence gives us both aspects of Epicurus’ theory of the *alētheia* of *aisthēseis*: the things which stimulate *aisthēsis* are real, physical things, namely *eidōla*, and they are represented in *aisthēsis* exactly as they are. We should recall the evidence presented earlier that *aisthēsis* is incapable of altering in any way the things which it represents. This general theory of the *alētheia* of *aisthēsis* is then applied to what would ordinarily be considered a case of false *aisthēsis*, viz. Orestes’ hallucination of the Furies. ‘So in the case of Orestes . . . his *aisthēsis* which was stimulated by *eidōla* was *alēthēs* (for the *eidōla* were there), but his mind believed falsely when it thought that the Furies are solid objects.’ Given the general theory just stated the explanatory clause ‘for the *eidōla* were there’ (*hūpekeito gar ta eidōla*) should be understood as ‘for the *eidōla* which stimulated his *aisthēsis* were there just as they were represented in his *aisthēsis*.’ We see, then, that Diogenes’ testimony of the reality of dreams and visions is seriously inadequate. The *phantasmata*, i.e. things appearing to the mind, which occur in those states are *alēthē* not merely in that they are real physical objects, but also in that they really are exactly as they are represented in *aisthēsis*. As we should expect, the reality of the things represented is inseparable from the truth of the representa-

tion. Diogenes' evidence is, therefore, insufficient to support the suggestion that the Epicurean doctrine that *aisthēseis* are *alētheis* merely reduces to the claim that *aisthēseis* are real, physical events. On the contrary, given Epicurus' epistemological requirements it is an indispensable part of that doctrine that *aisthēsis* is not merely a response to physical reality but a faithful representation of that reality.

That this is a general feature of *aisthēsis*, and not merely a feature of the special cases of dreams and hallucinations, is amply attested by the sources. In addition to the evidence of Sextus cited earlier (*M* VIII 9) to the effect that *aisthēsis* is 'receptive of the things presented to it, neither taking away nor adding nor altering anything', we may cite *M* VII 210, 'It is proper to *aisthēsis* merely to receive what is present and stimulates it, e.g. colour, but not to discriminate that the thing here is one thing and the thing here another. Therefore all the appearances which arise in this way are true, but the beliefs are not all true . . .' (adopting Usener's supplementation of the text). The obscure expression 'not to discriminate that the thing here is one thing and the thing here another' refers to the application of this theory to phenomena of perceptual illusion, perspective etc. The large rectangular tower looks small and round when seen from a distance, because when the *eidōla* reach the eye they actually are small and round, the large, rectangular *eidōla* emitted by the tower having been reduced in size and altered in shape by friction with the atoms in the space between the tower and the observer. *Aisthēsis* faithfully reproduces the actual state of the *eidōla* when they reach the eye, but it is no part of the business of *aisthēsis* to distinguish the small round *eidōlon* which you get when you look at the tower from *here* (i.e. from a distance) from the large rectangular one which you get when you look at it from *here* (i.e. from close up). That is the work of opinion, not of *hē alogos aisthēsis*; opinion is distorted when it gives rise to the belief that the same object is visually presented (*phantaston*) under both conditions, and is hence misrepresented when one looks from a distance.⁵ Two passages from

⁵ This seems to give the best account of what is meant by 'discriminating that the thing here is one thing, and the thing here another'. Other suggestions, e.g. that Sextus is saying that while *aisthēsis* registers that *this* is, e.g. green and this blue, it is not *aisthēsis* but *logos* which identifies the green thing as grass and the blue thing as the sky, introduce ideas irrelevant to the purpose of the passage, which is to give

Plutarch's *Adversus Colotem*, dealing with different kinds of perceptual phenomena, present essentially the same picture. In 1121 ab he presents the Epicurean theory of illusion in much the same way as Sextus; when the rectangular tower looks round in the distance, and the straight oar in water looks bent, then the sense-organ comes into contact with an *eidōlon* which is round, and one which is bent, and *aisthēsis* receives an accurate imprint of that (*tēn . . . aisthēsīn alēthōs tupousthai*). At 1109 a-e the phenomena are those of perceptual relativity, e.g. that the same water feels warm to one person and cold to another. Here the explanation is once again that each person's experience faithfully reproduces the actual character of the *eidōla* which he receives; the water itself contains atoms of both kinds, which are registered by observers whose sense-organs are in the appropriate condition to receive them. Disagreement on whether the water really is warm or cold reflects failure to distinguish the *eidōla* which make contact with the sense-organs from the aggregates of atoms which emit them.

So far, then, the evidence suggests that the Epicurean thesis that all *aisthēseis* are *alētheis* is not to be interpreted as the thesis that we have incorrigible acquaintance with our sense-contents. Nor is it merely the thesis that all *aisthēseis* are real, either in its trivial version, viz. that every occurrence of *aisthēsis* is a real event, or, in the more substantial version, viz. that every instance of *aisthēsis* consists in the stimulation of the sense-organ by a real, physical object. Rather, it is the thesis that every instance of *aisthēsis* consists in the stimulation of the sense-organ by a real object which is represented in *aisthēsis* exactly as it is in reality. If we need further evidence in favour of that interpretation, and against the ‘incorrigible acquaintance’ interpretation, it is provided by the context of the first passage from Plutarch just mentioned, *Col.* 1120 c ff. Here Plutarch is dealing with Colotes' critique of the scepticism of the Cyrenaic school; he represents him as rejecting, and indeed as making fun of the fundamental sceptical thesis that, while we do indeed have incorrigible acquaintance with our own sense-contents, that amounts merely to knowledge of an internal state, providing no ground for any justifiable

the Epicurean explanation of the source of the (erroneous) belief that misperception occurs. This source is the failure to distinguish distinct perceptual objects in distinct conditions of perception, a failure attributable to opinion, not to perception itself.

inference about anything external to the percipient. Plutarch states this position in its own technical terms: the percipient is 'sweetened' when something tastes sweet to him, 'embittered' when something tastes bitter to him, 'illuminated' when he seems to see light etc., 'since each of these experiences has its own particular incontestable clarity in itself' (*tōn pathōn toutōn hekastou tēn enargeian oikeian en hautōi kai aperispaston echontos*).⁶ Colotes apparently made fun of this curious terminology, pointing out that the sceptic ought not to say that something was a man or a horse, but rather that he himself was 'manned' or 'horsed', i.e. was in a state of seeming to see a man or a horse. Plutarch attempts to show that Colotes' own position does not differ from the one which he is attacking; he urges that just as the sceptics admit infallible knowledge of sense-contents but do not allow any knowledge of anything beyond them, so the Epicureans must admit that, while they have knowledge of the *eidōla* which impinge on them, they can have no knowledge of the external objects which, they claim, emit those *eidōla*. This is undeniably a difficulty for Epicurean epistemology, as for any representational theory of perception, but the point which concerns us here is that Plutarch's attempt to assimilate the Epicurean position to the sceptical one itself throws into relief the basic difference between the two. For the sceptic's starting-point (and his finishing-point too, for that matter) is knowledge of one's own perceptual states, 'perceptual sweetening' etc., whereas the Epicurean starts from direct acquaintance with physical objects impinging on the senses. The sceptic declares insoluble the problem of justifying the inference from descriptions of perceptual states to statements about external objects. For the Epicurean, on the other hand, descriptions of perceptual states are already descriptions of a percipient in contact with the physical world. The inference which he has to justify is not that from experience to the external world, but the inference from descriptions of *eidōla* to descriptions of their *causes*. This is put beyond doubt by Plutarch's description of the Epicurean position:

When a round *eidōlon* comes into contact with us, or again a bent one, they say that our *aisthēsis* is truly imprinted, but they don't allow us to affirm as well that the tower is round and the oar bent; they guarantee their experiences and appearances (*phantasmata*) as reliable, but are not

⁶ Cf. *M* VII 190-8, *PH* I 10.

willing to admit that the external things are that way. And just as they [i.e. the sceptics] ought to say ‘horsed’ and ‘walled’, not ‘horse’ and ‘wall’, so these people have to say that their sight is ‘rounded’ and ‘bended’, not that the oar is bent or the tower round. For the *eidōlon* by which the sight is affected is bent, but the oar from which the *eidōlon* comes is not bent (1121 ab).

The evidence which I have presented seems to me to establish my contention that the Epicurean thesis that all *aisthēseis* are *alētheis* is not the familiar empiricist axiom that we have complete and incorrigible acquaintance with our sense-contents, as expressed e.g. by Hume (*Treatise* I iv 2): ‘Since all actions and sensations of the mind are known to us by consciousness, they must necessarily appear in every particular what they are, and be what they appear’. I have not, of course, argued that Epicurus denied that axiom, or maintained anything inconsistent with it; I have merely argued that that is not what he means by ‘All *aisthēseis* are *alētheis*.’ But our incidental treatment of the thesis that *aisthēsis* is *alogos* has shown that Epicurus accepted another dogma of empiricism, viz. the view that, in contrast with its active role in forming concepts and making judgements, in perception the mind is passive, merely reproducing data which are presented to it. A paradigm expression of this view is provided by Locke (*Essay* II i 25):

These simple ideas, when offered to the mind, the understanding can no more refuse to have, nor alter when they are imprinted, nor blot them out and make new ones itself, than a mirror can refuse, alter, or obliterate the images or ideas which the objects set before it do therein produce. As the bodies that surround us do diversely affect our organs, the mind is forced to receive the impressions; and cannot avoid the perception of those ideas that are annexed to them.

Allowing for the fundamental difference that Locke is talking about the passive reception of mental impressions, whereas the Epicureans were concerned with the passive reception of physical *eidōla*, this passage is strongly reminiscent of the sources for the Epicurean doctrine that *aisthēsis* is *alogos*. All our sources for that doctrine (DL X 31, M VII 210, VIII 9, Aristocles, loc. cit.) associate it closely with the assertion that *aisthēsis* cannot alter the data presented to it in any way, but merely reproduces them as it were photographically. The analogy of the camera is, though

anachronistic, quite an apt expression of the Epicurean view. Their thought seems to have been that, like the camera, *aisthēsis* cannot lie, since *aisthēsis* puts no construction on what it 'sees' nor compares it with what it remembers (DL, loc. cit. *mnēmēs oudemias dektikē*), but, like the camera, merely records what is before it. But it is precisely this passivity in the face of stimulation which gives *aisthēsis* its evidential value; after all, what better evidence could there be that Brutus stabbed Caesar than a photograph of him stabbing Caesar? The paradox that *aisthēsis* is both a witness and *alogos* is thus resolved. *Aisthēsis* is *alogos* in that it can't think about what it sees, and thus can't misrepresent it. But it tells us what it sees, in just the way that a camera does, by presenting it, and thus has maximum evidential value.

The photographic analogy has the further advantage of emphasizing a fundamental difficulty in the Epicurean doctrine that *aisthēseis* are a criterion of truth. For we are able to treat photographs as evidence only because we know how cameras work; we know what kind of casual process is necessary for the production of a photograph, and so are able to infer back from the image to the reality which must have produced it. Similarly, we are entitled to treat *aisthēseis* as reliable witnesses to reality only if we already accept the Epicurean account of the physical processes which give rise to them.⁷ For if we don't already accept that perception consists in the physical impact on the sense-organs of films of atoms emitted by physical objects, and in the passive mirroring of those films in consciousness, then we have no reason to accept the fundamental premiss that *aisthēsis*, being in the required sense *alogos*, must be inerrant. Why should *aisthēsis* not process the physical stimuli which it receives, so that the same physical data are perceived differently by observers in different perceptual conditions? That suggestion does, after all, provide a perfectly plausible account of many cases of perceptual relativity, e.g. the same wine's tasting sweet to the healthy man and sour to the sick man. One might respond that in that situation the observers have different data, since things do appear differently to them. But that is to interpret 'data' as 'sense-contents' instead of as 'physical stimuli'; the Epicurean theory requires the latter

⁷ This may perhaps be the force of the obscure statement (DL X 32) that the reality of perceptions guarantees the truth of *aisthēseis* (*to ta epaisthēmata d' huphestanai pistoutai tēn tōn aisthēseōn alētheian*).

interpretation, since the nerve of that theory is precisely that sense-contents exactly mirror the physical stimuli which excite them. If that claim is abandoned we have to retreat to the claim that we cannot be mistaken about what sense-contents we have. I hope to have shown that that is a retreat from the Epicurean position, not a restatement of it.

It is no accident that the examples which our sources rely on in elucidating that position concentrate on the spatial properties of the *eidōla*, viz. size and shape. For the thesis that *eidōla* are represented in perception exactly as they are in reality is most readily applicable to just those properties. *Eidōla* are physical structures, composed of atoms whose only intrinsic properties are size, shape, weight and ‘the necessary accompaniments to shape’ (e.g. propensity for certain sorts of motion: DL X 54). Such structures themselves have objective size and shape, which may be reproduced faithfully or inaccurately in perception. But since they are composed of individual atoms which lack such secondary properties as colour, taste, and smell, and since they are individually imperceptible, a succession of *eidōla* being required to stimulate the sense-organ, they cannot themselves be said to possess colour, taste, or smell. So if the same wine tastes sweet to the healthy man and sour to the sick man, what becomes of the Epicurean thesis that the *aisthēsis* of each man is true? It cannot sensibly be maintained that the healthy man’s *eidōla* really are sweet, and the sick man’s really are sour, for imperceptible things have no taste. Perhaps, then, the thesis is that the *aggregate* of *eidōla* which each receives really is as each tastes it. But here ‘really is’ seems to come to no more than ‘really tastes’, and that in turn to no more than ‘really tastes to him’, in which case the thesis that every *aisthēsis* is true reduces to the triviality that whatever tastes etc. a certain way to someone really tastes etc. that way to him. As far as I can see, the theory can be saved from this trivialization only by means of providing a theoretical identification of e.g. real sweetness as a phenomenal property associated with a specific physical structure S (e.g. a structure of smooth particles, Lucretius IV 622–4). Then the thesis that the perception of sweetness is true would be the substantial thesis that, whenever anything tastes sweet to a percipient, that percipient is being stimulated by *eidōla* of structure S. The Epicurean theory certainly provides the materials for such identifications (see

especially Lucretius' account of hearing, smell, and taste, IV 522–721): it is less clear that either Epicurus or his followers grasped the theoretical necessity for them.

The Epicurean thesis that all *aisthēseis* are true provides, then, no independent support for the physical theory. Rather it presupposes that theory, in two ways. As regards the perception of shape and size, the theoretical account of the mirroring of *eidōla* in perception is required to explain the sense in which perception is true. As regards the perception of secondary qualities, the role of the theory is to identify a certain physical structure as what is truly perceived. The theory predicts that whatever is perceived as a phenomenal property, e.g. sweetness, will in fact be an instance of that structure; the truth of the perception consists in its fulfilling that prediction. In advance of the theory as a whole, the claim that all perception is true requires independent support. Epicurus seems to have thought that that support could be provided by epistemological considerations, in that the only alternative to the acceptance of the claim is total scepticism, which he regarded as an absurd or self-defeating doctrine. Thus at DL X 146–7 he asserts that rejecting all *aisthēseis* together or any particular one alike lead to the abandonment of any criterion of what is true and false. It is implied that that is an unacceptable position, though it is not stated why it is unacceptable. Perhaps his thought is that scepticism itself requires the conceptual distinction between truth and falsehood, and that that distinction itself presupposes the ability to tell which things are true and which false, which in turn presupposes a means of telling, i.e. a criterion. That there was an Epicurean argument along these lines is proved by *Lucretius* IV 473–9:

Yet even if I were to concede that he [i.e. the sceptic] does know this [i.e. that he knows nothing], let me ask him this: since he has previously seen nothing true in things, how does he know what knowing and again not knowing are? What has produced his conception of the true and the false? What has proved that the doubtful differs from the certain? You will find that your conception of the true was produced by the senses first of all, and that the senses cannot be refuted.

Perhaps an expansion of this point, or perhaps a separate one, is the argument that reason cannot give grounds for rejecting the evidence of perception, since reason itself originates from or depends on perception. This is certainly Epicurean, as it is

reported both in the same passage of Lucretius, ‘Moreover, what must be held to be more trustworthy than the senses? Will reason, arising from false sense, be strong enough to speak against them, reason which arises solely from the senses? Unless they are true, all reason also becomes false’ (482–5), and in the corresponding summary in DL X 32: ‘Nor again can reason [refute *aisthēseis*], for all reason depends on *aisthēseis*.’ This is obviously a descendant of Democritus’ famous ‘Complaint of the Senses’ (frag. 152 Diels–Kranz), ‘O wretched mind, you receive your evidence from us, and do you overthrow us? Our overthrow is a fall for you’, and can be developed into an argument to show that scepticism is self-refuting.

Epicurus had, then, some good arguments, or at least the materials of such arguments, which he could advance against scepticism without presupposing his physical theory. His method thus displays a subtle interaction of epistemological and metaphysical considerations. The fundamental epistemological requirement is that every *aisthēsis* should be true, i.e. that whatever seems to be the case should in some sense or other actually be the case. It then becomes part of the task of the general theory of nature to specify the sense or senses in which what seems to be actually is. It is an astonishing achievement of atomism, both in its fifth-century and in its Epicurean version, to have provided an even reasonably plausible account of the satisfaction of this requirement as part of a comprehensive account of the world. But problems remain. For the sceptic can reasonably claim that the account of how things always are as they seem is, in the last resort, empty. For example, how is the claim that sweetness is always the taste of a structure of smooth atoms to be tested? Suppose microscopic examination revealed that in some cases the atoms were smooth, but in others spiky. If both the microscopic and the gustatory observations are, in the theoretical sense, ‘true’, then we have two sets of atoms instead of one. No doubt we could add to the theory a description of how a structure of smooth atoms emits a structure of spiky ones, but the problem of verification arises there again, and so on at every level. The basic difficulty is that a theory of objective reality which is not subject to any constraint by experience must be empty of actual content.⁸ Epicurus could have avoided this difficulty only by abandoning his fundamental

⁸ For discussion of the same problem in fifth-century atomism see Taylor [134].

epistemological requirement and facing up to the sceptical challenge to find a way of discriminating veridical from non-veridical experience. The subsequent history of philosophy to the present indicates the formidable nature of that undertaking; the Epicurean alternative, though ultimately unsuccessful, was well worth exploring.