LUCRETIUS POET AND PHILOSOPHER

BACKGROUND AND FORTUNES OF ›DE RERUM NATURA‹

Edited by Philip R. Hardie, Valentina Prosperi and Diego Zucca

TRENDS IN CLASSICS

Lucretius Poet and Philosopher

Trends in Classics – Supplementary Volumes

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Lucretius Poet and Philosopher

Background and Fortunes of *De Rerum Natura*

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and Diego Zucca

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Diego Zucca
Lucretius and the Epicurean View That "All Perceptions are True"

Abstract: The well-known and controversial thesis that "all perceptions are true" is endorsed by all Epicureans. At least three general interpretations of it have been provided by commentators and interpreters, based on respective meanings assigned to the predicate "true" ('propositional', 'existential', 'factive' meaning) as well as on the alleged objects/contents perception is thought to be *of* (*eidola*/ proximal *stimula* or environmental objects/distal *stimula*?). Starting from this puzzle, this paper will address the more general issues involved in the Epicurean theory of visual perception (theory of *eidola*/*simulacra*) and interpret the epistemological meaning of the 'controversial thesis' in the light of Lucretius' treatment of vision, illusion and dreaming in DRN Book 4. It will turn out that Lucretius has a very sophisticated view on perceptual epistemology.[1]

1 *Theaetetus'* Protagoras and the Epicureans on all perceptions being true

The well-known Epicurean thesis that "all perceptions are true" (APT)[2] first appears in Plato's *Theaetetus* as originally held by Protagoras.[3] Here, however, this view is couched in relativist and subjectivist terms: all that appears to me is *true-to-me-now*, and all that appears to you is *true-to-you-now*. Each subject's appearance is infallible, but it is such precisely because it cannot be objectively (neither

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1 I wish to thank Francesco Verde for his precious critical advice on a first draft of this paper.

2 There is no error in sense-perception (Sext. Emp., *M* 8.9), as all the senses give a true report (Cic., *DND* 1.25, 70) and never lie (Cic., *Luc.* 28.82; see also 25, 79: "*veraces sanos esse sensus dicis...*", and *Fin.* I 19, 54; Lucr. DRN 4.379, 499).

3 *Theaet.* 152c. See Vogt 2016 about the relation between APT in Plato's *Theaetetus* and in the Epicurean tradition.

intersubjectively nor diachronically for the same subject)[4] true. Protagoras' omnialethism is in fact a form of skepticism about knowledge of the external world, as his *homo-mensura* doctrine undermines any claim of an observer-independent truth. The Epicurean APT, despite its apparent similarity to Protagoras' thesis, has an opposite meaning as it is aimed at grounding an objectivist epistemology on the infallibility of perception. It is thus a kind of de-subjectivized and de-relativized version of the first. It is perhaps more than a coincidence that the Epicurean APT, although literally appearing to be the same as Protagoras' APT, is often put forward by Epicureans as a ground for an anti-skeptical move, and is the case for Lucretius[5] in addition to Epicurus himself.[6] What is the genuine meaning of APT in the Epicurean model, and to what extent could Lucretius' account of APT in DRN help us better grasp this meaning?[7]

2 Epicurean Epistemology

First, we should review the essential core of Epicurus' epistemology or 'canon'.[8] Perceptions and feelings make original content available for our cognition, and reiterated sensory inputs are the origins of 'preconceptions' (*prolepseis*), which are equally as evident.[9] Leaving feelings aside, as they are more relevant in ethical considerations, perception and preconceptions are *criteria*, or standards leading to truth when applied to something evident. Knowledge is a transition from

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4 Plato associates APT with the idea that knowledge is perception and with the idea that everything is in flux, so there are neither persistent objects nor any persistent subject to whom perceptual information could be presented at different times.

5 DRN 4.469–521, see *infra*, Part 5 of this paper.

6 *RS* 23: "if you fight against all of your perceptions you will not have a standard against which to refer even those judgements which you pronounce false" (tr. Hicks).

7 Particularly if Sedley 1988 is right in seeing Lucretius as an 'Epicurean fundamentalist' who is almost pedantically faithful to Epicurus' original doctrines and arguments (for a different view see Clay 1983, Montarese 2012, Schmidt 2016), clarifying Lucretius' account of perception can shed light on the original model. In any case, there is no need to take a position about this *querelle* to value DNR as an interesting source – in fact the best-preserved source – that can be retrospectively (though cautiously) used.

8 I am aware that the Epicurus' scholars will find this description dramatically rough and oversimplified: my aim is only that of introducing the basic commitments of Epicurus' epistemology, so we can value the contribution of Lucretius. See Asmis 1984 for an accurate study, and Striker 1996.

9 Preconceptions originate from memory of what is often perceived (Diog. Laert., 10.33). On *prolepsis* see Long 1971, Manuwald 1972, Tsouna 2016, Verde 2016.

the Visible to a) the Invisible[10] and b) 'what is waiting' (= a Visible that will come to be),[11] through the application of criteria. A belief can have different logical relations to a perception: it can be made true when 'witnessed' by a perception, or it can be made false if 'counterwitnessed'. Perceptions can falsify or confirm beliefs, and not only empirical beliefs, but also those that posit what we would call 'theoretical entities' (the Invisible that is hypothesized to account for the Visible).[12] In this model, perceptions test inferential knowledge, but also preliminarily 'feed' our 'preconceptions' or notions from which those concepts are formed, which build the propositions to be confirmed or falsified. Thus, perceptions can work as *i*) original *content-givers* (also by 'feeding' preconceptions), *ii*) *explananda* (the Visible as a Given to be accounted for), iii) *testbenches* for theories concerning the Invisible (a hypothesis is confirmed insofar as it accounts for the Visible and the Visible can be derived from the hypothesized theoretical entities).[13] In particular, the theory of perception is a virtuously circular way of justifying its own origins, as the position of atomic *eidola* that continuously emanate from solid objects (which they are similar to and preserve specific properties of)[14] like films and impact our senses, simply *accounts* for the Visible (the manifest world and the way we experience it) and shows how and why the content of our perceptions (and mediately of our concepts) is objective and reliable. The theory of *eidola* fits with atomistic ontology and is the basis of the empiricist epistemology through which this very theory has initially been introduced. Atomism is in fact an explanation *of* the Visible in terms of the Invisible, so it is assumed that

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10 *Ep. Hrdt.* § 38.

11 A natural explanation or account will exhibit predictive power: if atoms, void etc. are essentially invisible, "what is to be expected" is invisible *de facto* but – if the theory is true – will become manifest in the future.

12 In case of beliefs concerning the Invisible (*adelon*) – or the not-evident – they are true if not counterwitnessed by perception, and false if counterwitnessed. One may object that two beliefs of this kind could be both 'not counterwitnessed' but incompatible: but I leave aside this issue here.

13 To a certain extent, this model recalls the Aristotelian one: we start from *phainomena* (the 'first for us'), we posit a hypothetical 'deep structure' X (a nature or an essence) of the considered *phainomena*, if we can derive or infer the *phainomena* from the hypothesized X, X is established as the 'first *per se*' (see *Phys.* 1.1). Within both models, the original *wonder* associated to *phainomena* is eliminated as soon as they are explained away. On the epistemological value of wonder in Aristotle and Epicurus, see Milanese 2020.

14 On *eidola* in Epicurus' *On Nature* Book II, see Leone 2012 and 2015; *eidola* preserve *morphe* and *schema* of their solid sources: as Corti 2015 shows, '*schema*' denotes the inner structure of the solid body and '*morphe*' denotes the external form. See also *Ep. Hrdt.* §§ 46, 48, 49 (on which, see Verde 2010, *ad loc.*). According to Sext. Emp. (*M* 7.207) colour is also preserved.

the Visible is not an area of deceit. That "all perceptions are true" – whatever "true" may mean here – is a requirement for our concepts to be non-'spurious' or contentless, for our theories to explain something real and to be controlled by reliable 'confirmers' or falsifiers. We may take APT as pragmatically assumed at a first step[15] and theoretically confirmed (circularly, though not in a vicious way)[16] by the theory of *eidola,* which is an explanation of how it is that all perceptions are 'true' and therefore *ab origine* epistemologically reliable. Given this framework, how are we to read APT? Particularly, what does the predicate 'true' mean in APT?

3 APT and its Readings

Before considering the predicate "true" in APT, we should note that "perceptions" in APT have a broader extension than we may at first think. The term does not only refer to illusions, which we also take to be inaccurate perceptions, as hallucinations, dreams and similar perception-like experiences are also credited with truth by APT: indeed it is part of the very theory underlying APT that such appearances (*phantasiai*) of a sensory kind (with a sensory phenomenology) in fact *are* perceptions, and it is only insofar as they are such that they are true. Thus, a "dream" is true, what we term optical illusions (like a stick looking bent when partially underwater) are true, and conflicting appearances at different times (a tower looking round from a distance and square when nearer)[17] are *both* true, as are hallucinations like the Centaur or the Furies that appear to Orestes.[18] Now, the puzzle is that either we take APT as a thesis *à la* Protagoras so we understand why all 'perceptions' are true but do not understand how on earth they

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15 This is Asmis' suggestion (Asmis 1984).

16 Gavran Miloš 2015, 168 writes that "appearances are not considered as genuine pieces of knowledge since they do not reveal the truth, but just the contrary, they misrepresent the real atomistic nature of things"; I disagree: the gap between appearances and atomic structures is not an opposition, as appearances are neutral about the fine-grained nature of appearing objects, rather than contradicting it. The gap needs to be inferentially filled, but no misrepresentation is involved in perception: on the contrary, the atomistic theory accounts for how and why things appear as they do.

17 That of conflicting appearances is considered a fundamental issue by Epicureans: see Sext. Emp., *M* 7.208; Plutarch, *Adv. Col.* 25; Sen., *NQ* I 3. 9., Lucr., DRN 4.353–363 and 500–506, Tert., *De anim.* 17.

18 See DRN 4.728–744 for the Centaur example, and Sext. Emp., *M* 8.63 for the Fury example.

could ground our knowledge of an objective world in addition to our subjectivities, or we take perceptions to be genuine relations to mind-independent worldly objects so we make sense of this empiricist epistemology as a whole, but then we do not make sense of why illusions, conflicting appearances, dreams, and hallucinations should be equally true!

Disregarding the other more detailed differences between scholars' views, we can sketchy distinguish three main ways of reading APT, depending on the way the predicate "true" is interpreted, and I will propose adding a fourth option, which seems to me consistent with the primary and secondary sources, and which may let us better grasp the evidential role of perception in Epicurean epistemology.

3.1 Propositional Reading (PR)

According to PR,[19] all perceptions are true, just as a proposition can be true or false, but they always have the same truth-value and they cannot be false, like beliefs can. As perceptions are not propositions, the idea is to distinguish a propositional counterpart for a given perception, which makes its content explicit. Thus, what is the proposition which can express the content of a given perception, so that the perception itself can become truth-evaluable?

According to one reading of PR, if I see a round object, the proposition that expresses the content of my perception is something like "this object looks round to me now".[20] This may be read as a type of subjectivist view of the propositional reading, insofar as the proposition does not report on the environment that is supposedly experienced, but about how the environment looks to the subject of the experience. What is true is *that* a certain perception represents O as F to me, not that "O is F". This reading accounts for the 'truth' of dreams, hallucinations, experiences of madmen, and for the conflicting appearances concerning the same object (for example, seen at a distance and then from nearby). However, in this case, what epistemological importance will APT have? It is part of the very concept of "looking" that something can look as it is not, so a subject can have many true beliefs based on his/her perceptions concerning the ways things look to him/her, according to his/her experience. But if anything can be different from the way it looks to S, then S is not in a position to know anything about the environment if all S can rely on are true propositions expressing how things look to

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19 See Striker 1977, 90.
20 Striker 1977.

him/her. Thus, it becomes clear why all experiences (including hallucinations, dreams and so on) are 'true', but it becomes unclear why APT should ground any knowledge of the world, so APT would be epistemologically trivialized. I can know my experiences, but not whether they are accurate *vis-à-vis* the objective world: in the same way I know which beliefs I have but this does not at all guarantee that such beliefs are all true. In addition, APT is often stated as a claim *against* skepticism, and this reading would perfectly align with skepticism about the external world (all I perceptually know are my experiences: how things look to me now).[21]

A stronger and more promising propositional reading would take APT to mean that all perceptions are true just as beliefs are, i.e., they represent obtaining states of affairs (made out of objects and their properties/relations) in the world:[22] this would make APT epistemologically robust, but then it would again be problematic to explain why Epicureans also call "true" hallucinations, illusions and dreams. In any case, perception, says Diogenes Laertius, is considered "a-rational" (*alogos*) by Epicureans,[23] and thus is conflicting with the idea that "true" in APT is propositional: a proposition is truth-evaluable only insofar as it is a *logos*.

3.2 Existential Reading (ER)

An existential reading of APT suggests that "true" means "real" and "existent": all perceptions are real/existent. But what is credited with existence according to APT? From one perspective of ER, APT would suggest that any perception is a real

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21 In fact, this is rather the Cyrenaic view, as well as the skeptical Pyrrhonist view.

22 See Striker 1990, 90ff., Everson 1990, 168. Striker renders APT as follows: "all propositions expressing no more nor less that the content of a given sense impression, are true" (142).

23 Diog. Laert., 10.31 "All sensation, he says, is a-rational (*alogos*) and does not accommodate memory. For neither is moved by itself, nor when moved by something else is it able to add or subtract anything" (tr. LS). Gavran Miloš 2015 effectively argues that Epicurean perceptions are credited with non-conceptual content. Bown 2015 proposes to distinguish perceptual truth from doxastic truth (propositional) as involving a "predicative complex" made out of an object and a property (ex: tower, round): a perception is true *if* the object has the property, but unfortunately this ingenious maneuver is not witnessed by any source and thus faces the same problem as the propositional reading: if perception is "*alogos*", its content cannot have such a semantically structured nature; moreover, as perception does not involve memory, it cannot include any cognitively 'thick' kind of "seeing-as", such as seeing a tower as round would be.

affection, an existent event in the act of sensing.[24] Again, this conception of APT accounts for illusions, hallucinations and dreams but not for the epistemological role APT is credited with by the Epicureans. Every perception, as an act of sensing, is existent, but this may well be compatible with our perceptual experience being radically deceptive and unable to ground any knowledge of the external world. We cannot be asked to trust our perceptions simply because they exist, just as we cannot be asked to trust our beliefs simply because they exist. Moreover, "true" is usually contrasted with "false", not with "inexistent".[25] The notion that every perception exists is so trivial that it cannot express the controversial, provocative thesis the Epicureans themselves and also their critics take APT to be.[26]

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[24] Long 1971, Rist 1972, De Witt 1943, 1954; See also O'Keefe 2010. Sextus also attributes such an equivalence between "true", "real" and "existent" (as referred to *aistheta*) to Epicureans in *M* 8.9; but he then explains that for them "'true' is what is in the way it is said to be, 'false' is what is not in the way it is said to be" and "since perception is capable of grasping what it is presented with, without adding or subtracting anything as it is a-rational, it is absolutely truthful and it grasps what it is in the way this (object) is in its nature. While all sensibles (*aistheta*) are true, all things-that-are-believed (*doxasta*) are different: some are true, some are false" (see also *M* 7.210). The explanation makes clear that what we perceive is not "true" and "existent" because our perceptions exist but because they somehow represent their object the way it is, without adding or subtracting anything to the information received. Thus, perceptions are *accurate*, and their content is always instantiated: this is more than just existing, and is also more than just having an object, as it is accurately representing the object. Diog. Laert., 10.32 attributes to Epicureans the idea that "seeing and hearing are as real as feeling pain": the comparison with pleasure and pain *prima facie* fits very well with the existential reading, but we need to consider that pains and pleasures carry information about the environment and are not regarded as simply internal phenomenal states.

[25] Everson 1990, 167; Striker 1996, 81. Cicero, Plutarch and Lucretius never speak of true as opposed to inexistent.

[26] Plutarch (*Adv. Col.* 1121B–D) says that Epicureans are like Cyrenaics who think that we only perceive our own internal affections, but this source does not at all support the existential reading, as Plutarch also adds that Epicureans do not want to admit this. The subjectivist (therefore skeptic) consequences of their theory is, according to Plutarch's criticism, an unavoidable but undesired consequence, therefore he is aware that Epicureans' intention is not that of limiting APT to the sphere of perceptions meant as just 'real affections'. In any case, we cannot rule out that Plutarch misunderstood the genuine epistemological meaning of APT.

3.3 Factivity Reading (FR)

A more fruitful and plausible view is that APT means that all perceptions are *brought about* by something existent, i.e., by *eidola*.[27] They are "real" in the sense that they always have a real object in the *eidola,* which are objective,[28] worldly items we are presented with, even in case of dreaming, hallucinating, and the like.[29] This option does justice to the objective implication of perception, and thus to its epistemological significance: we are always confronted with real objects when perceiving, as the films our senses come in contact with. This view is articulated by Vogt who terms it "factivity reading".[30] Factivity is a property of certain propositional attitudes such as knowledge: if S knows P, P is true, and indeed you cannot ever know P unless P is true, because you cannot know false propositions (if anything, you can know *that* P is false, so you know the true proposition P[1]: "P is false"). Similarly, APT claims that perceptions are *of what is*, so they are true. What is real is not just the perception itself ('simple' existential reading) but its object, which is also its genuine cause. The analogy with factivity is that any perception must necessarily have an object as its cause. The direct objects or causes of perception are atomic images. Thus, it is clear why perceptions are true and cannot be false even if their "truth" is not incommensurable with that of belief (this is similar to the truth of justified beliefs, which makes them knowledge).

However, a basic problem remains: how can I rule out the possibility that I am not confronted with a dream or a hallucination now? Even these types of experiences are certainly *of* something (floating and coincidentally combined *eidola* that do not emanate from a solid object near to the perceiver), but how can the subject distinguish the *eidola* that come from solid objects from those that only remotely originate from environmental objects, after undergoing modifications and 'fusions'? Infallibility and objectivity are involved here, but the object is the proximal *eidolon*, not its distal source. In any case, if *all there is* to the evidential role of a perception is the same as that of a hallucination or a dream – the

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27 Asmis, 2009, 94–95. FR seems to fit well with Sextus (*M* 8.63) and Diogenes (Diog. Laert., 8.32): both emphasize that what moves the sense are existent *eidola*, therefore all sensations are true.

28 This fits well with Sextus' formulation as "all *aistheta* are true" (rather than "all *aistheseis*") (the same is to be found in Demetrius Lacon, PHerc. 1012: see Verde 2018, 89–90: like Sextus, Demetrius makes the equivalence true = existent).

29 By externalizing any perceptual content, Epicureans want to rule out *any* informational modification of the percept *inside* the mind: this accounts for their somehow counterintuitive objectivist account of dreams and hallucinations.

30 The Factivity Reading is shared by Vogt 2015 and Gavran Miloš 2015.

presence of a proximal object, i.e., *eidola* – the empiricist epistemology is in trouble and the skeptical challenge cannot be avoided. The 'distal' reality remains perceptually unreachable, which is not a helpful consequence if we regard *prolepseis* and beliefs, and thus all human cognitive effort, as ultimately based on perception.

3.4 Truth-Conduciveness Reading (TCR)

I now propose a fourth reading of APT along the following lines: perceptions are *truth-conducive* insofar as they are *bona fide* ways to truth. "True" in APT does not refer to the mere existence of perceptual states, or to the truth-value of propositions expressing how things look to a subject, nor does it simply mean "having a real object", as in the factivity reading. The 'truth' of a criterion – unlike the truth of a belief obtained through the application of the criterion itself – is its capacity to make us come to believe true propositions, and thus its reliable *truth-conduciveness*.[31] Criteria are truth-conducive *par excellence*, and perception is a criterion (the most basic one).[32]

Perception leads to objective truth concerning *steremnia*, or the distal objects: it does so *in virtue of* the subject being in real contact with the *eidola* emanating from solid objects and exhibiting a structural similarity to them (*sympatheia*).[33] Thus, the factivity of perception does hold, but it is that in virtue of which perceptions are truth-conducive, insofar as the *eidola* carry genuine information about their sources, but knowledge and truth are *about* the sources rather than about the *eidola*. Each subject has its own *eidola* (proximal stimula/objects) to which he/she is in proximal contact, but distal sources are shared by all subjects who perceive them. Perceptions are "true" – i.e., truth-conducive – because the

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31 The advocates of the Existential Reading argue that the Greek use of "*alethes*" to mean "real", "existent" is not at all extravagant (besides being explicitly attributed to Epicureans by Sextus, Diogenes and Demetrius Lacon), but this also holds for "truth-conducive": for example, in Aristotle's *Metaphysics* 5.29 – usually called *lexicon* as it is a philosophical dictionary which also draws on common usages – one meaning of "false" is: something real, but from which false appearances derive (1024b21–26), and another is: something (or someone) that produce false notions in people" (1025a1–6); in the same vein, it is plausible that "true" could also mean: something that gives rise to/produce/conduces or leads to true appearances or representations: for example, to true beliefs.

32 Of course, perception is *alogos* and does not deliver propositionally structured information: it enables us to form true beliefs only insofar as we are also endowed with conceptual, propositional and inferential abilities (*prolepsis, dianoia, logismos*).

33 See Diog. Laert., 10.50; *Ep. Hrdt.* §§ 46–48, § 50.

propositions we come to believe through them are reliably true, so they are pieces of knowledge. Our knowledge is *of reality*, not simply of *eidola* (a small piece of reality) or, worse, of those *eidola* we happen to come in contact with:[34] if perception is a grounding criterion and thus secures knowledge, it cannot only concern nearby *eidola*, it must be *about* solid distal objects. What about the alleged truth of dreams, hallucinations, conflicting appearances then? How can we make sense of these cases within TCR?

4 The Proper Object of Perception: Distal, Proximal and Disjunctive views

The readings of APT depend on what we take the object of perception to be: is it the *eidola* impinging on our sensory organs or the solid objects the *eidola* come from? The proximal/distal distinction can be applied to the various readings of APT. APT could involve the truth of propositions about perceptual states,[35] or about proximal stimuli (*eidola*) or about things themselves;[36] it could involve factivity as always having a proximal object (*eidola*)[37] or a distal object;[38] or it could more generally refer to the existence of a proximal object.[39] As discussed, the proximal view appears to be promising in accounting for the truth of conflicting appearances (these concern different *eidola* that are as they appear, so there is no genuine conflict), hallucinations and dreams (these concern real though non-solid objects, the floating *eidola* that 'arrive' to us), illusions (the tower's *eidolon is* round when we are at a distance from the solid tower), and *prima facie* the view seems to fit better with some of the relevant sources. However, this too obviously leads to scepticism about knowledge of the external world, in addition to conflicting with other sources: although genuine knowledge would be guaranteed in this view, it would not be knowledge of the right things!

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34 The Proximal Reading is shared by Everson 1980, Gavran Miloš, Vogt, Taylor 1980; Císař 2001, among others.

35 See Striker 1977.

36 See Striker 1990. She holds that the exclusion of distant things from the field of perception is a doctrine added by late Epicureans.

37 See Vogt 2015 and Gavran Miloš 2015.

38 See Asmis 2009. The 'extreme' existential reading as "something is happening in me" is indifferent to the proximal/distal difference.

39 Taylor 1980, Tsouna 1998, 118–119, Everson 1990, 176–177.

The distal view[40] can meet the epistemological *desiderata* of a consistent theory of knowledge and is supported by other sources,[41] but seems incapable of doing justice of the truth of hallucinations, dreams, conflicting appearances and illusions. Here, distal objects are not existent or are different from the way they appear or cannot simultaneously be all the ways they appear (e.g., round or square).

My proposal is to embed the distal view in a disjunctivist framework as follows. Standard perceptions are about distal objects, the *eidola* and their isomorphism with their sources are *that in virtue of which* we perceive the objects in the environment; *eidola* physically account for our perceptions of distal objects as truth-conducive, producing true empirical beliefs that are *not* (only) about *eidola*. Hallucinations and dreams do not have proper distal objects, i.e. there are no *solid* particulars nearby, from which these *eidola* come from: in these cases, perceptions are about the *eidola* themselves, as there is no solid distal object that *these eidola* carry information about. We must resist the generalization that suggests that if in some cases the perceptual objects are proximal *eidola*, then the latter must *always* be the perceptual object.[42] The case of conflicting appearances is different, and can be explained through the reading of "true" as "truth-conducive" (TCR): the tower is square, but it looks round at a distance because it is the way square towers look at a distance, and distance is also perceived.[43] We have the phenomenological resources to distinguish a near round tower from a far square one that "looks" round; if we take the far tower to *be* round, we are going beyond our perception, which presents us with a far tower the way far towers are typically presented to us. The "round-looking" tower experience is as truth-con-

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40 See Asmis 1984.

41 In proposing TCR I am not denying that "true" is also used by Epicurus to mean "existent" or "real", I am denying that this is the only and ultimate sense of APT. Below in Part VI I assess to what extent Lucretius shows to hold TRC (see *infra*).

42 See Sext. Emp., *M* 7.205–7: "it is not the body that is seen, but the color of the solid body. Sometimes the color is right on the solid body, some other times it is in the space adjacent to it [...]": this passage only *prima facie* speaks in favor of the proximal view, as on the contrary, it is well compatible with the disjunctive view: *stricto sensu*, we see the body's surfaces, which are distal objects; sometimes we see *eidola* detached from the solid surface; some other times we see floating 'artificial' *eidola* (Centaurs, Furies and the like): Sextus (*M* 8.63) remarks that in the last cases the mistake is believing that they *are* solid bodies (not that they *come from* solid bodies), which entails that in the standard cases it is *not* a mistake to believe that what you are perceiving *is* the solid body.

43 See LS 1987, 85.

ducive as the square tower experience, and it is up to our belief-system to appreciate such a truth-conduciveness and form the right beliefs.[44] A stick that is partially underwater just looks as sticks partially immersed underwater look: the water makes it look this way, and nothing is false or inaccurate. You simply need to truly believe that water has certain objective properties that make the stick look bent, and the perception is truth-conducive. All perception is passive, but what is given needs to be cognitively used, and this is how your exposure to error comes into play: your cognitive use of perceptual inputs is not *a priori* safe. An opinion becomes true in virtue of its method of validation, but we also call "true" the method itself just because it is truth-conducive; likewise, a perception is true because perception is a 'canon': a reliable (truth-conducive) criterion that allows us to have true empirical beliefs.

In summary, APT states that all perceptions are truth-conducive (they all put us in a position to form true empirical beliefs about the world), and they typically have distal solids as their proper objects,[45] even though we perceive such objects *in virtue of* getting in touch with their information-carrying *eidola*.[46] However, in *some* cases (hallucinations, dreams) we perceive the *eidola* themselves, as there

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44 A precious passage by Diogenes Laertius (Diog. Laert., 10.33–34) makes clear that a belief about the tower becomes true insofar as it is "witnessed" by perception: "what is expected" (*to prosmenon*) is exemplified by the case in which we learn the tower to be square as soon as we get nearer: from a distance, the perception does not represent the tower as objectively round but as experienced in such a way that we need further information to obtain its precise shape. So, the perception is incomplete, but it is still truth-conducive.

45 In *Ep. Hrdt.* § 48 it is stated that "we see and think the forms in virtue of something of the external objects coming to us [...]": the forms we see, and think are not the *eidola* but the properties of the solid objects themselves, of the external things (*ta exo*): Epicurus says in § 46 that images are "far surpassing the *phainomena*", which probably entails that *phainomena* must be solids rather than images. Everson 1989, 181 finds Epicurus "inconsistent" here, but the passage would be inconsistent only with Everson's proximal view (but perhaps one could argue that the single *eidolon* surpasses *ta phainomena* but the latter are *groups* of images rather than solid objects).

46 Another option is that of rejecting the very proximal/distal distinction insofar as *eidola are* the object (Verde 2016, 59; Verde 2018, 100–101): after all, they are part of the object but are continuously detaching from it. However, a) a part of an object is *not* the object, as an object is not identical with any of its parts, and b) *eidola* have different properties from the objects they come from: for example they are moving very fast, the respective object is not; they are many, the object is one; and they are not necessarily as big as the respective objects: I see a tower, my experience of it does not represent it as big as my eyes, even though the *eidola* impinging on my eyes are such. Being parts of the objects is not a sufficient condition for *being* the objects themselves: they are physical objects of course, but they are not *what* we perceive, rather they are that *through which* we perceive the solid objects from which they constantly emanate.

is no object to be perceived, but even these experiences are truth-conducive in a sense. They inform us about their objects, the *eidola* (which, again, does not necessarily mean that all perceptions only inform us only about the *eidola*!), and when our reason is working well and our senses are awake, we are not misled by them as their phenomenology is not *just like* that of the experiences concerning solid objects. Furies, Centaurs and the like would appear quite differently if they were *bona fide* solids.[47]

5 Lucretius on APT

Let us assess our reading by examining Lucretius' treatment and use of APT, assuming that Lucretius is a reliable source on the original spirit of Epicurus' APT.

Lucretius first introduces *simulacra* and their properties (their existence, fineness, rapidity, and the 'spontaneity' of some of them:[48] 54–109), and then presents their gnoseological role. They affect our eyes (*corpora quae feriunt oculos visumque lacessant*, IV 217) and enable vision:

> *Esse in imaginibus quapropter causa videtur*
> *cernundi neque posse sine his res ulla videri.* (237–8)

Images are the cause of visual discrimination and that-without-which *things* could not be seen. Lucretius clearly regards the object of vision not to be the images but the things themselves (*res ulla videri*), and the images are rather the cause and enabling condition for vision, as in the distal view. This becomes clearer in what follows:

> *Et quantum quaeque ab nobis res absit, imago*
> *Efficit ut videamus et internoscere curat.* (244–5)

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47 'Mental' *eidola* are finer than perceptual *eidola* (DRN 4.722–761: see *infra*; see Bailey 1947, 1268; 1928, 414). Diog. Laert., 10.50–51 distinguishes *phantasiai* of the mind and of the senses (both are physical atomic aggregates, as mind is a body just as senses are). Whether the Lucretian idea of the existence of two kinds of *simulacra* is Epicurean or not, is a controversial point, on which see Masi 2015. However, it is worth saying that APT as a principle holds independently on such physiological explanations, as these explanations are obtained only in virtue of APT itself.

48 A very good analysis of DRN 4 about sensation and *simulacra* is Repici 2011. See also Císař 2001. Godwin 1986, 7–9 defends the unity of the book. I will consider only the part concerning APT and *simulacra*.

Again, images make it possible that we see both the *res* and how far it is from us (*absit*). Certainly, we do not need to evaluate how distant the *simulacra* our eyes receive are from us (*Propterea fit ut videamus quam procul absit*, 250). Then it is explained how the *simulacrum* pushes the air, in such a way that the more air is moved before us (and the longer the time that it lasts), the more distant the thing appears to be (*tam procul esse magis res quaeque remota videtur*, 253). Next, Lucretius even states that we *cannot see* the single incoming *simulacra* (*ea quae feriant oculos simulacra videri/singula cum nequeant*) but that we directly perceive *things themselves* (*res ipsae perspiciantur*, 257–8).[49]

In a further passage (353–63) the tower example, and thus the issue of conflicting appearances, is examined. Lucretius explains that the tower looks round from a distance because the *simulacra* get smoothed by the air due to their long trip,[50] and adds that it looks round but *not* in the way (actual) round towers look from near:

> *Non tamen ut coram quae sunt vereque rotunda,*
> *sed quasi adumbratim paulum simulata videntur.*   (362–3)

A physical explanation is provided for the tower looking round (the smoothing of the *simulacra*), but a point is also added about the phenomenal difference between round towers seen from near and square towers looking round from a distance, which look *paulum simulata, quasi adumbratim*. In seeing the far tower, we are in a position to distinguish our experience from the experience of a real round tower, despite the phenomenal similarities. If I appreciate such a difference – and it has been previously argued that distance is perceived (250–3) – then I do not form the belief that that tower is round. If I did, I would deceive myself rather than being deceived *by* my perception, the mistake would be (as it is said later concerning other examples of alleged optical illusions) a doxastic one, due to reason (*ratio animi*, 384):[51] *Proinde animi vitium hoc oculis adfingere noli* (386). We often take our experiences to be false, but what is actually false is only what we *believe* we have seen or perceived (*pro visi ut sint quae non sunt sensibus visa*, 465): we have not seen a round tower, even if this tower looked "roundish" before we got nearer. It did not look exactly as a round tower looks but it rather looked

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49 Císař 2001, 24, holds a proximal view and says that this passage "cannot really say that we truly perceive the objects themselves" and it represents a "Lucretius' inconsistency" (36). See also Bailey 1947, 1214.

50 See Sext. Emp., *M* 7.208; see also *Ep. Hrdt.* § 48: sometimes the *eidolon* gets blurred (*sygkeomenes*).

51 See *Ep. Hrdt.* § 50: error is not in perception but *en to prosdoxazomeno*.

like square towers look far away, and my perception included information about the distance. Thus, phenomenologically, I already was in a position *not* to be deceived, so that my next perception from near does not deny the first but integrates it. In my view (TCR) the first perception is "true" neither because it exists, nor because it has a real object, nor because a proposition expressing what it represents is true, but because it is truth-conducive, even if less informative than the following perception, since more details can be gained from a nearer viewpoint.

At 379 Lucretius' APT is anticipated, *Nec tamen hic oculos falli concedimus hilum*, before being stated explicitly at 499: *Proinde quod in quoquest his visum tempore, verumst.*[52] Before this claim, a variety of examples of visual illusions are given (relative apparent movements, perspectival convergence, refraction and reflection, double vision when our eyes are pushed, the bent stick underwater[53] and others, *including dreams*)[54] and it is made clear that such experiences are not intrinsically deceptive, or they are such only *propter opinatus animi quod addimus ipsi* (465), due to what *opinions* we add to them. This model recovers the 'double-factor' Platonic theory of appearance (*phantasia*) as a combination of perception and opinion.[55] Phenomenology of experience is such that for a subject it is the hardest job (*Nihil aegrius est quam...*) to tell apart perceptual information from the spontaneous and immediate doxastic integration of it (*res secernere apertas/ ad dubiis, animus quas ab se protinus addit*, 465). No perception is false-conducive, *we* – with our belief system – are responsible for our cognitive use of perception, even though it can understandably seem to us that we have been deceived by our senses. Perceptual information is often partial, so we integrate it with beliefs and mistake the outcome of this integration for the original perception, which never is to blame. Whenever our empirical beliefs are genuinely *controlled* by perception, they are true: perception provides factive environmental information[56] that is cognitively used on the basis of collateral knowledge. It is not responsible for representing the very the causal context in which we perceive:

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52 The past tense is also relevant for the tower example: not even *ex post* can I say that my previous perception was wrong.

53 4.353–461.

54 Dreams are analyzed in 453–61. On Lucretius' account of dreams see Clay 1980, Asmis 1981, Masi 2017, Masi in *this volume*, Tsouna 2018, Güremen 2018.

55 See *Soph.* 264A–B: *phantasia* is a combination (*summeixis*) of perception and opinion. See also *Tim.* 52A. Recovering the Platonic theory is also an Epicurean move against Aristotle, who takes *phantasia* to be neither perception nor opinion nor a combination of the two (see *De an.* 3.3, 428a19–b8).

56 TCR is compatible with the factivity of perception, even if I contend that "factive" is not the most fundamental meaning of "true" in APT.

it is not its job to let us know that water's refraction makes a straight stick look bent, or that we are moving on a ship so the environment appears to escape behind us, or that there is a finger pushing the eye which makes us see double. The absence of collateral knowledge or the presence of collateral false beliefs can make us get things wrong in terms of what we perceive, every time that we as rational thinkers are not capable of appreciating and exploiting the truth-conduciveness of *any* perceptual experience we enjoy.

In DRN, APT underlies an antiskeptical move (469ff.): if you claim you do not know anything, you cannot even claim to know that nothing could be ever known (469–70). Even if we conceded to the skeptic that he knows that nothing can be known, as *ex hypothesi* he has never met anything true (*cum in rebus nihil veri viderit ante*, 474), how does he know what 'knowing' or 'ignoring' are, where did his notion of truth (*notitia veri*) come from? Moreover, how can he prove that certainty and uncertainty differ (476–7)? *Notitia veri* – which probably denotes Epicurean *prolepsis* – must have come from senses in the first place, and senses thus cannot be refuted (478–9): what is sensorily evident and perceptually present works as a paradigmatic instance of truth, so it exhibits what "true" means. For a proleptic disposition towards F to be acquired, you need to be exposed to many *bona fide* instantiations of F, otherwise your *prolepsis* would be contentless and you would not be able to even recognize that F is *never* instantiated. Rational denial of sensory knowledge[57] rests on a reason that paradoxically denies its own conditions of possibility. A reason originated by deceptive senses would be deceptive (484–5), and thus deprived of any refuting force (*qui nisi sunt veri, ratio quoque falsa fit omnis*, 485). Nothing could refute a sensation, not even another sensation (whether of the same sensory modality or not, 486–99), as each sensation is worthy of *aequa fides* (498),[58] that is indeed a *prima fides* (505). Just after characterizing APT Lucretius goes back to the tower example and says: if reason cannot adequately account for[59] square things' appearing round when seen from

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57 Skepticism challenges any knowledge, but Lucretius is interested in the rejection of sensory knowledge here.

58 The Parity Argument (on which see Vogt 2015) is to be found in Plato's *Theaetetus* (157e–160d) and Aristotle's *Metaphysics* (5.5, 1009a30ff.): Epicureans transform a common skeptical objection into the ground for an optimistic epistemology. On Epicureans and the skeptic challenge, see Fowler 1984 and Stoneman *in this volume*.

59 Dissolvere *causam*: as said, the issue of conflicting appearances for the Epicureans was an *aporia* to be solved. Intra-subjective diachronic conflict is apparent, as what is in conflict are contents at least one of which is unduly integrated by belief; but even intersubjective synchronic conflicts can be treated the same way: if what appears to me and what appears to you are incompatible, it is because either one of us or both of us have a 'belief-loaded' appearance.

a distance, better to mistakenly explain this than to violate trust of our senses and so upset the very basis of life itself (500–6). First, let us remark that what is taken to be seen round or square is the distal object, the tower itself (*ea quae fuerint iuxtim quadrata, procul sint visa rotunda*); second, the explanation provided earlier (*simulacra*'s angles being smoothed by the air) was hypothetical, and trust on both perceptions does not need to depend on our physical explanation of this phenomenon: even if it was left unexplained, we should not mistrust our senses, so the trust on senses is original. The rational process is derived from the first and even the idea that *simulacra* come to our eyes and can be modified must not be taken as *the* reason why we should trust both of our sensations in this case. Third, trust on senses is connected with life and survival in the environment:[60] what threatens or promotes our life is the distal environment, and certainly not the proximal *simulacra*, which are what enables our sensory system to cope with the distal environment. In my view, the passage makes clear that the reason why the 'round' experience is true and trustworthy is *not* that its objects are round *simulacra* (that we are in contact with round *simulacra* is true or at least a good hypothesis), but that senses are also an original, primitive criterion for rational-inferential knowledge, as they are truth-conducive:[61] the "adumbrated" phenomenology of the tower seen from a distance even enables the roundish look to provide information on the real tower, as distant and (perhaps) squared. In fact, in the experience the tower did not look *to be* round: it looks to be round to us – *videtur* or *phainetai* as "looks" in a not merely sensory but also doxastic sense, according to the Platonic double-factor view of appearing – insofar as we provided a wrong opinion of the perceptual information. Now I know the tower is square, so I can go back and realize that my experience did *not* present me with a round object but with a square object seen from a distance.[62] The first experience was truth-

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[60] If our sensory system were not efficacious in representing environmental properties, we would be all dead (this anticipates the anti-teleological commitments in the last part of book 4). Everson 1989, 171 holds that APT needs to be read 'pragmatically' as saying that we should treat all sensations *as if they were* true: but this innocent idea does not fit with the way all the sources characterize APT.

[61] Everson 1990, 177 points out that only the Proximal View accounts for why sensations do not refute each other; but I submit that the tower-experiences do not refute each other even if they are *of* the same (distal) object, the tower itself: the idea is that the wrong belief that the tower is round is not *merely* grounded on the perception at a distance, which does *not* represent the tower as really round but as a tower (perhaps round perhaps square) seen from a distance.

[62] Demetrius Laco (PHerc. 1013 col. XX 1–9) defends Epicurean APT from the charge of skeptical consequences: the opponent says: "if everything which appears also is, then the Sun, that appears still, is standing still", Demetrius replies that the Sun *"does not* appear standing still (but it is judged to be such)": he does not says that it is not the Sun but the *eidolon*, that appears (and

conducive, and I lost an epistemic occasion by forming a wrong belief about what I was seeing. If even a single perception was not truth-conducive, we would be lost and incapable of trusting anything, and thus perception could not sustain the building of knowledge as it would be a defective rule with which all measures are taken wrongly so that the resulting construction is unstable (513–21).[63] The image of a rule clearly recalls the criterial or 'canonical' role of perception. A rule is "true" because it reliably produces true measures, and thus it is a stable and solid basis.

After characterizing each of the five senses (522–722), Lucretius comes back to the cases of dreams and hallucinations (722–776). Some floating *simulacra*, finer than those affecting the senses, impact the mind (728–31): they can fuse and mesh in the air thus forming inexistent figures such as Centaurs, as a consequence of the mesh between human and equine floating images which occurs by coincidence (*casu*, 741);[64] they can impinge on mind (*animus*) with a single impact, differently from the perceptual *simulacra* that cannot be perceived *singillatim* (105) but only as continuously and copiously flowing from a solid object. Thus, hallucinations are receptions of 'mental' *simulacra*, which are also phenomenally different from 'perceptual' *simulacra*: again, in this case there is no solid object out there, but we as subjects of experience are in a position to discriminate hallucinations from perceptions of solid objects. Therefore, even hallucinations are not false-conducive, they are rather truth-conducive if we take them at face value, without adding beliefs, and believe what we see: non-solid objects or *simulacra*. When dreaming, our mind remains awake (*mens animi vigilat*, 758), but our senses are inactive, which is why we wrongly believe that dreamed contents consist of solid objects. Again, senses are truth-conducive, which is why dreams mislead us when senses cannot control our beliefs.[65] However, in a way even dreams are *in themselves* true and truth-conducive: they have an object, *simulacra*, and we *would be* in a position to take this object as simply a non-solid image *were* our senses awake. However, as they are not, *a fortiori* they are not to blame for such delusional beliefs.

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is) still, but that *the Sun* does not appear still. The *eidolon*, inter alia, is *not* still. On this passage, see Güremen 2018.

63 Diog. Laert., 10.146–7: abandoning perceptual evidence leaves us in the dark; *Ep. Hrdt* § 52: if we do not stick to the criteria grounded on evidence, the error would upset everything.

64 See *Ep. Hrdt* § 48.

65 It is worth remarking that this is a type of inversion of the Aristotelian explanation of dreams, according to which a function of sensibility, *phantasia*, is active but reason (*dianoia*) is inactive, so it cannot enable us to distrust such *phantasmata* (see *De Ins.* throughout).

Thus, Lucretius' account of APT and *simulacra* supports the following view: all sensations (dreams and hallucinations included) are truth-conducive (TCR), and their object is typically distal. Illusion about distal objects is never *stricto sensu* perceptual but depends on the informational integration by our doxastic activity; *only* in hallucinations and dreams is the object not a solid but the very floating *simulacra* (distal view *plus* disjunctivism), but this does not undermine truth-conduciveness, because the difference between solid and non-solid objects is phenomenologically appreciable, except when dreaming. However, even in this last circumstance it is not the case that dreamed contents are not truth-conducive, as it is their very truth-conduciveness that cannot be appreciated due to the inactivity of senses, so APT is safe and consistently grounds an objectivist epistemology.

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