

EPICURUS ON EIDOLA
***PERI PHUSEOS* BOOK II**

UPDATE, PROPOSALS, AND DISCUSSIONS

edited by

Francesca Guadalupe Masi and Stefano Maso



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LEXIS ANCIENT PHILOSOPHY

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Aurora Corti, Dino De Sanctis, Tiziano Dorandi, David Konstan,
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Stefano Maso

IMAGES AND TRUTH

Abstract

The new edition of the papyri of the second book of *Peri phuseōs* allows for a detailed reconstruction of the mechanisms of vision. Some of the characteristic features of images according to Epicurus are presented here for the first time; others receive a clearer definition, however indirectly – as in the case of ἐπιβολή. As for the congruence between the representation and the object from which it originates (i.e. the truth of the image), we can infer from book II that it depends not only on an error made by the subject of its mental elaboration, but also on the physical characteristics of its atomic flux. The correspondence-based conception of truth appears as a prelude to a more complex and coherence-based one.

Keywords

Atom, ἐπιβολή, image, outline, representation, truth, vision.

The second book of Epicurus' *Peri phuseōs* is dedicated to the study of images: their physical constitution, their formation and dissemination, and how they are perceived by the sensory organs of living beings. The version made available thanks to Giuliana Leone's reconstruction of the text, based on the Herculaneum papyri 1149/993 and 1783/1691/1010,¹ allows us to look into the text in more detail; however, let us also not overlook the overarching framework provided, in particular, by a few paragraphs drawn from the *Letter to Herodotus*: only from this perspective can one proceed to piece together all (or at least most of) the surviving fragments of the second book.

¹ In her critical edition, Giuliana Leone uses Arabic numerals for the columns of papyrus 1149, and Roman numerals for those of papyrus 1010. The present paper follows the same system.

§ 46 focuses on the concepts of ‘outline’ (τύπος) and of ‘image’ (εἶδωλον):

Καὶ μὴν καὶ τύποι ὁμοιοσχήμονες τοῖς στερεμνίοις εἰσὶ, λεπτότησιν ἀπέχοντες μακρὰν τῶν φαινομένων. οὔτε γὰρ ἀποστάσεις ἀδυνατοῦσι ἐν τῷ περιέχοντι γίνεσθαι τοιαῦται οὔτ' ἐπιτηδειότητες πρὸς κατεργασίας τῶν κοιλωμάτων καὶ λειοτήτων γίνεσθαι,² οὔτε ἀπόρροιαί τὴν ἐξῆς θέσιν καὶ βάσιν διατηροῦσαι, ἥνπερ καὶ ἐν τοῖς στερεμνίοις εἶχον· τούτους δὲ τοὺς τύπους εἶδωλα προσαγορεύομεν.

Again, there are outlines, which are of the same shape as solid bodies, but of a thinness far exceeding that of any object that we see. For it is not impossible that there should be found in the surrounding air emanations of this kind, that they are adapted for expressing the hollowness and thinness of surfaces, and that these effluxes preserve the same relative position and motion which they had in the solid objects from which they come. To these outlines we give the name of images. [transl. Hicks, modified]

On the one hand, as outlines preserve the superficial shape of their corresponding objects (and no more than that shape), they are therefore hollow and made of an extremely thin layer of atoms; on the other hand, these outlines radiate into their surrounding environment until they are perceived and recognised as images of the solid object from which they originate.

The second book of *Peri phuseōs* confirms that images come from something solid (στερέμνια, coll. 21.5-6 and 37.2-3); wherefrom they detach themselves (ἀποστάσεις, coll. 14.6; 101.25-102.1 ≈ IV.8-9). This generates an outflow (hence the verbal form ῥέυσει, col. 37.2; see ἀπόρροιαί: *Hdt.* 46), multidirectional and uniform, toward other solid bodies (πρὸς στερέμνιά τινα σώματα, col. 37.2-3); the latter will inevitably include bodies endowed with sensory organs and therefore capable of apprehension (ἐπιβολή). As for the meaning of ἐπιβολή (unfortunately, despite its central role in the mechanics of atomism, the term does not appear in the fragments of the second book of *Peri phuseōs*), the privileged focus here is not so much on the *simulacrum*'s application to the solid body that receives it as on the solid body's capacity to perceive and comprehend the *simulacrum*. This interpretation appears to be unequivocally confirmed in *Hdt.* 62, which underlines that truth, i.e. the optimal result of knowledge, is gained either through a mental operation (i.e. the exercise of observation), or through an operation of rational comprehension: ἐπεὶ τό γε θεωρούμενον πᾶν ἢ κατ' ἐπιβολὴν λαμβανόμενον τῇ διανοίᾳ ἀληθές ἐστι.

² This second γίνεσθαι – deleted by Kuehn 1692 and by subsequent editors, including Arrighetti 1973 – was reintroduced by Tiziano Dorandi in his edition of Diogenes Laertius, Cambridge 2013.

The second book also presents a few additional characteristics of images:

- they originate from the surface (and only from the surface: ἐπιπολή, coll. 106.20; XIV.1) by analogy (κατὰ τὴν ἀναλογίαν, col. XIII.18); they have no depth: εἰς βάθος μέντοι οὐ πασῶν μορφῶν, ἀλλὰ μόνον εἰς τὸ ἐπιπολῆς μορφῶν (col. XIII.19-XIV.2);
- their number is infinite: ἄπειρα (coll. 90.11; 92.6 and 11; 101.24; V.4);
- they are generated at unimaginable speed: (ἢ σύστασις αὐτῆ) ταχέως γιγνομένη γεννᾶται ἅμα νοήματι (col. 76.5-8; see 92.7-8, 119.23-120.2 ≈ XXVII.21-XXVIII.4);
- the generation process causes no reduction in the matter of the object, in virtue of a mechanism of endless atomic ‘compensation’: ἀνταναπλήρωσις ... ἐξ ἀπείρου (col. 66.8-9);³
- they move at unimaginable speed: ταχυτῆτα τῶν εἰδώλων κατὰ τὴν φορὰν ἀνυπέβλητον (col. 93.9-11; cf. 94.3-5; 111.5-8; 120.2-4 ≈ XXVIII.5-7);
- they spread in all directions (as can be inferred from coll. 31; 37; 38; 52; 60);
- collisions can cause them to deviate: ὁ διασπασμὸς καταστήσει εἰς ἄλλο φορᾶς (col. 38. 7-9);
- they are subjected to pushing processes (ὁ ἐξωστικός τρόπος, col. 112.3-4 ≈ XVII.7-9), whereby their momentum is accelerated, allowing them to rapidly move across the vacuum and reach distant locations: τὰ εἶδωλα δύναται ταχέως εἰς μακροὺς τόπους περαιοῦν (col. 115.6-9 ≈ XXI.14-17);
- the optimal dimensions of their pores allow them to move immediately in the right direction: κατὰ μέντοι τὸ περιλαμβανόμενον (ἐπιλαμβανόμενον, col. XVII 15-16) εὐθὺς ἐξ ἑτοίμου κενοῦ (col. 112.8-11 ≈ XVII. 14-17);
- they are characterised by an impressive cohesive force (ἀλληλουχία, coll. 102.1 ≈ IV.9-10; 102.21 ≈ V.21; 106.20-21; XII.3-4) which, up to a certain point, prevents them from scattering (σκέδασις, coll. 103.6 and 10 ≈ V.21 e VI.4).

It is worth noting that some of these characteristics of images are highlighted in book II for the first time: this is the case of ἐξωστικός τρόπος, i.e. the pushing process undergone by *simulacra* and which allows them to move air or even other solid bodies in order to proceed in the right direction.⁴ Or of ἀλληλουχία, i.e. the *simulacrum*'s specific cohesive structure.⁵ We also do not find else-

³ This is the new reading proposed by Leone 2012, 414; see *ibid.* 548-51. Graziano Arrighetti [24].[31].11.7-8 (199) reads: [ἀλ λ ἄ] πλή[ν][. ρου . . [

⁴ See coll. 111.2-112-25 ≈ XVI.1-XVIII.14; see the commentary by Leone 2012, 639-42.

⁵ *Pyth.* 99.4 mentions the intertwining of cohesively attached atoms (ἀλληλουχῶν ἀτόμων) that is the basis of cloud formation. On the novelty of Epicurus' use of ἀλληλουχία, see again Leo-

where in Epicurus any mention of the process of scattering (σκέδασις), a possible side-effect of the clash between a *simulacrum* and a solid and impenetrable body. Indeed, the *simulacrum*'s cohesive features are effective only up to a certain point. For instance, the *simulacrum* is obviously incapable of moving across [through?] a wall: its thin structure – i.e., its inner vacuum – does not allow the *simulacrum* to move across [through?] the pores of a wall; the bodies capable of doing so are those endowed by nature with an ever-changing and adaptable morphological structure, such as fire or water.⁶ An image, to the contrary, cannot be ever-changing, otherwise its form would no longer correspond to the body from which it originates: it would lose its constitutive symmetry and analogy.

However, just as the fragments of book II present no mention of ἐπιβολή,⁷ there is also no trace of the term φαντασία, which designates the *simulacrum*'s final terminus, its capacity to be identified not only with the image (εἶδωλον),

ne 2012, 94-7. Leone, besides, associates the concept of cohesion (ἀλληλουχία) with that of compactness (πύκνωμα, see *Hdt.* 36 and 50).

⁶ This powerful example is presented in coll. 117.2-118.8 ≈ XXIV.6-XXV.21.

⁷ The interpretation and translation of the term remain problematic, yet crucial to our understanding of the overall mechanics of the act of perception. Usener 1977, 275-7, offers an almost exhaustive overview of the term's occurrences, and concludes by comparing it to προσβολή (in the technical sense of 'intuition'), a term quoted in Plot. *Enn.* 2.9.1.35-36. More recently, Hossenfelder 2006, 115-6, interpreted ἐπιβολή as 'die vorstellende Hinwendung'. Liddell-Scott proposes both 'application' and 'act of direct apprehension', but the usual English translation is 'application' (see, among others, Asmis 1984, 86-91 and 124-6; and Asmis 2009, 93; Long - Sedley 1987, I, 90). However, Asmis 1984, 352, says: "Ἐπιβολή application; an act by which the senses or the mind *apprehend* [emphasis added] an object, either (in the case of both senses and the mind) by obtaining a perceptual impression or (in the case of the mind) by making an interpretation that is verified by the phenomena (whether directly by ἐπιμαρτύρησις or indirectly by οὐκ ἐπιμαρτύρησις)". That is correct; but should not be left aside also the pioneering study of Carlo Diano (1939-1942: *La psicologia d'Epicuro e la teoria delle passioni*, now in Diano 1974, 129-280), who first tried to explain (156-63) what was the ἐπιβολή τῆς διανοίας and why it is distinguished from the act of attention of the senses, i.e. from the ἐπιβολή τῶν αἰσθητηρίων (and ἐπαίσθησις?). For the Italian translation Arrighetti 1960 chooses 'apprensione' or 'atto apprensivo', a choice followed by Morel 2009, 124-5 ('apprehension', 'focalisation / projection en direction de l'objet'); Delattre, in *Les Épicuriens* 2010, 19, translates § 50: "L'image ... que nous saisissons en nous y appliquant par la pensée ou bien par les organes des sens". Back on the subject of Italian translations, Russello 1994 chooses 'intuizione'; Verde 2010 takes up the English translation and chooses 'applicazione', but in a later discussion (2013, 73-6) of the technical meaning of the term, he provides a far more interesting interpretation that is closer to the meaning of 'apprehension'. As for Lucretius, in 2.739-740 the mind's active adoption of what it perceives is described as follows: *In quae corpora si nullus tibi forte videtur / posse animi iniectus fieri, procul avius erras*. Clearly the expression ἐπιβολή τῆς διανοίας corresponds to *iniectus animi*. See also *animi iactus* (*ibid.* 1047) in reference to the process of knowing the universe.

but also with the image in the sense of something that is being ‘imagined’, i.e. with the apprehended image that is the fruit of φανταστικὴ ἐπιβολή – a property which Epicurus undoubtedly attributes to the mind.⁸

We read in *Hdt.* 51:

ἢ τε γὰρ ὁμοίότης τῶν φαντασμῶν οἶονεὶ ἐν εἰκόνι λαμβανομένων ἢ καθ' ὕπνου γινομένων ἢ κατ' ἄλλας τινὰς ἐπιβολὰς τῆς διανοίας ἢ τῶν λοιπῶν κριτηρίων οὐκ ἂν ποτε ὑπῆρχε τοῖς οὐσί τε καὶ ἀληθέσι προσαγορευομένοις, εἰ μὴ ἦν τινα καὶ ταῦτα πρὸς ἅ <ἐπι>βάλλομεν.⁹ τὸ δὲ διημαρτημένον οὐκ ἂν ὑπῆρχεν, εἰ μὴ ἐλαμβάνομεν καὶ ἄλλην τινὰ κίνησιν ἐν ἡμῖν αὐτοῖς συνημμένην μὲν <τῆ φανταστικῆ ἐπιβολῆ>,¹⁰ διάληψιν δὲ ἔχουσαν· κατὰ δὲ ταύτην [τὴν συνημμένην τῆ φανταστικῆ ἐπιβολῆ, διάληψιν δὲ ἔχουσαν],¹¹ ἐὰν μὲν μὴ ἐπιμαρτυρηθῆ ἢ ἀντιμαρτυρηθῆ, τὸ ψεῦδος γίνεται· ἐὰν δὲ ἐπιμαρτυρηθῆ ἢ μὴ ἀντιμαρτυρηθῆ, τὸ ἀληθές.

For the appearances which, e.g., are grasped in a picture or arise in dreams, or from any other form of apprehension by the mind or by the other criteria of truth, would never have resembled what we call the real and true things, had it not been for certain actual things of the kind with which we come in contact. Error would not have occurred, if we had not experienced some other movement in ourselves, conjoined with, but distinct from, the perception of what is presented. And from this movement, if it be not confirmed or be contradicted, falsehood results; while, if it be confirmed or not contradicted, truth results. [transl. Hicks, modified]

The beginning of the paragraph is not entirely clear: the fact of being ‘grasped’ as in a painted picture (εἶκων) refers to the perception of the εἶδωλα; once perceived, these images are indeed ‘imagined’, i.e. represented. Epicurus seems to be suggesting a parallel between images being ‘grasped’ (λαμβάνομένων) and their ‘arising’ (γινομένων), which, in turn, takes place in virtue of two parallel opportunities: the one provided by the absence of rational intention during a dream (καθ' ὕπνου); and the other ensured by the various ‘apprehension’ mechanisms (ἐπιβολαί) of the mind (τῆς διανοίας) or of other criteria

⁸ See *Hdt.* 50; Diog. Laert. 10.31 and 10.147 (= *RS* XXIV).

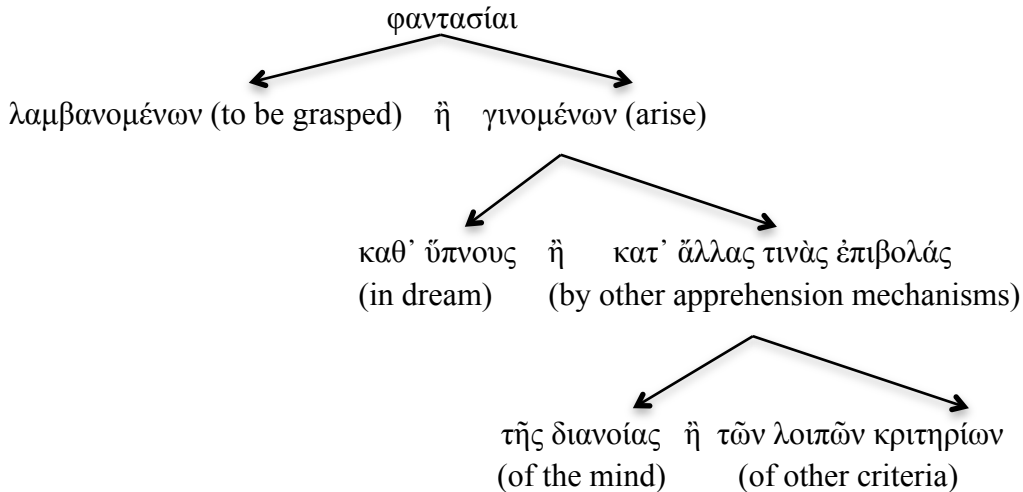
⁹ The codices concord on βάλλομεν (see Dorandi 2013); ἐπι>βάλλομεν is by Schneider 1813, followed by Arrighetti 1973.

¹⁰ This integration made by Usener 1887 has the merit of taking up the *iunctura* τῆ φανταστικῆ ἐπιβολῆ, present two lines above in the final sentence of paragraph 50. Modern editors, however, tend to delete this last sentence, which they consider an intrusion derived from a gloss on the margin.

¹¹ The text between brackets is not present in all the codices. Usener 1887 considers it a gloss. Von der Muehll 1922 deletes it.

(τῶν λοιπῶν κριτηρίων) such as – according to Diog. Laert. 10.31 – perceptions, *prolepseis*, and feelings.

To sum it up with the help of a diagram:



The balance between these alternatives seems to be ensured by the repeated use of the conjunction ἢ, yet an ambiguity remains in terms of the perspective from which the coming about of representation is observed: on the one hand, *simulacra* constituted into images *arise* in specific conditions and become the matter of representation; on the other, they are *apprehended* and brought to be the matter of representation.¹²

On [In?] the background, the whole operation of ‘seeing’ still appears to be articulated into three moments:

- [A] the generation of the image
- [B] the transmission of the image
- [C] the perception of the image.

We can note that *Peri phuseōs* II emphasises the first two moments, i.e. the generation (τὸ γεννᾶν) and transmission (ἡ φορά) of the image; in *Hdt.* 51, the accent is on the third moment, i.e. on the act of grasping (see the verb λαμβά-

¹² We also find this second perspective in an expression by Sextus Empiricus *Adv. dogm.* 1.203, ἐπὶ τῶν φαντασιῶν παθῶν περὶ ἡμᾶς οὐσῶν, indicating the “feelings which become representations in reference to ourselves”. In other words, our being perceptive makes us capable of representing something to ourselves.

νειν) the image. The verb περιλαμβάνειν returns, however, in a passage of book XI of *Peri phuseōs*:

ὡς ἀληθ[ῶς περι]ληφθεῖη περὶ τῶ[ν ὑπο]κειμένων ἐπαί[σθη]μα [β]έβαιον ὅτ[αν
] αὐτοῦ τοῦ δ[] ἢ ἄνω ἢ [κ]άτω τοιαυτηνὶ φ[ορὰν]ι

And indeed one could grasp a certain and faithful perception of reality... a movement of this kind, upward or downward...

Nat. XI, 26.34.1-7 [Arr.]

The passage is important not only because it evokes the perspective of an entity which is capable of grasping something because it has the tools to do so and because there is a reality (τὸ ὑποκείμενον) to which one can refer; not only because it evokes one of the criteria (ἐπαίσθημα) underlying representation; but first and foremost because it introduces the problem of congruence between what is being grasped – and therefore represented – and the actual reality on the background. It thereby raises the question of the truth (ἀλήθεια) of representation and hence of the trustworthiness (βέβαιον) of the perceived image.

If we now return to the second part of *Hdt.* 51, we can see that the text becomes clearer: here, too, representations are what they are only insofar as there exists an entity that is the object of representation (τοῖς οὐσί \approx τῶν ὑποκειμένων in *Peri phuseōs* XI), i.e. an entity that exists outside of the body endowed with an organ of perception; this entity produces the *simulacra* and is the addressee (πρὸς ἃ ἐπιβάλλομεν), i.e. it is the object to which bodies capable of perception address their perception tools. Moreover, this paragraph from the *Letter to Herodotus* also raises the question of truth, i.e. of the congruence between image and the object to which it refers. Error is placed under scrutiny and receives a mechanical explanation.

Errors seem to be essentially located in the ‘transmission’ of the image, when an additional movement can interfere with the one connecting the *simulacrum*-emanating body to our ‘grasping’ or ‘apprehending’ activities (ἄλλην τινὰ κίνησιν ἐν ἡμῖν αὐτοῖς συνημμένην μὲν τῇ φανταστικῇ ἐπιβολῇ). What is being described here is a genuine distortion of the communication process, which can be fixed as soon as it is acknowledged. In summary, truth is ensured by the removal of the error generated by an inaccurate transmission of the images.

In more analytical terms, however, what is taking place when an error occurs?

The quick succession of *simulacra* is interfered with by something coming from a different direction (and which is therefore endowed with a different movement): this causes a variation – if not complete, at least partial – in the

movement of the atoms that compose the *simulacrum*, so that the surface of the image no longer preserves its formal identity with the object that generated it.

This is exactly what one can read in *Peri phuseōs* II, col. 38.1-9:

καὶ ἐπὶ τοῦ προσώπου τὴν ὁμοιομορφίαν τοῦ σώματος [δ]ιασώζουσ[ιν] ἕως [ἄν] ἀπαντήσά[ν τι σ]τρέψηι τινὰς ἄς ὁ διαπασ[μὸς κ]αταστήσῃ εἰς ἄλλο φορᾶς εἶδος.

... and on the surface they preserve the identity of the body's shape until something they encounter changes the direction of some [atoms], and the separation thereof induces a different kind of movement...

How can this error be fixed and prevented?

Since the mechanical error in the transmission of the images is caused by the interference of a foreign body or movement, the first step is to ensure the 'continuity' of the transmission. Indeed, truth is directly connected to that which has specific natural consistency and constitutive definition that allow it to prevent or attenuate interferences. This is how we can interpret a passage from *Peri phuseōs* XXV, which appears to focus on the theme of reconstructing, through memory, a perception which is partly evident (because endowed with the necessary 'continuity', συνεχοῦς), and partly non-evident (τοῦ ἀφανοῦς):

πότε ἀπεμ[νημόν]ευεν ἢ ἀνάλογον τῆ[ι μ]νημον[εῦ]σει πάθος ἰσχά[νετο (...)] καὶ μάλιστα τ[ὸν ἀπὸ] φυ[σικοῦ] πάθους φόβ[ον] κατὰ [τοὺς ἀνθ]ρώπους καὶ κα[τ]ὰ τὰ ὑπ[ὲρ ἄν]θρωπον [τὴν ἀλ]ήθ[ει] [αν κατὰ τὸ] ὠρισμένον ἐξ[ήτει] [καὶ τοῦ συνε]χοῦς καὶ πο[τε] [καὶ το]ῦ ἀφανοῦς

(The mind?) sometimes remembered or took a feeling as if it were something similar to a memory [...] and particularly with reference to fear of physical suffering, either in relation to humans or to something beyond human, it searched for truth on the basis of what is defined, of what is continuous, or of what is not evident...

Nat. XXV, 34.19.9-15 [Arr.]

This rather obscure passage comes from book XXV, dedicated to the constitutive and functional characteristics of the mind¹³. What interests us here is the

¹³ The text presented here is proposed in Arrighetti 1970, 334. The text which Laursen 1997, 14, reads is, actually, more incomplete: πότε ἀπεμ[νημόν]ευεν ἢ ἀνάλογον τῆ[ι ἀπο-μ]νημον[εῦ]σει πάθος ἰσχά[νεν (...)] / μάλιστα τ[ὸν ἀπὸ] φυ[σικοῦ] πάθους φόβ[ον] κατὰ τ[ὸν ἀνθ]ρώπους καὶ κα[τ]ὰ τὰ ὑπ[ὲρ ἄν]θρωπον [.....]ήθ[ει] [.....] [μ][.....]ωρισ[.....]ιζ[.....] [.....] εχουσι [... κα[τ]ὰ τὸ] ἀφανοῦς As is clear, especially the final part is problematic and the reading of Arrighetti is not easy to accept. However, it does not seem implausible. See also Masi 2006, 162.

fact that it mentions truth and makes an explicit connection between truth and the definite character that a body must have (in this case, in order to be remembered); definiteness (ὠρισμένον) is in turn closely connected to the continuity (ὁ συνεχής) of the object that is being examined by reason.

On the subject of the continuity (i.e. of the persistence) of *simulacra* and of their identity, *Hdt.* 48 underlines that they are generated at the speed of thought (ἡ γένεσις τῶν εἰδώλων ἅμα νοήματι συμβαίνει). A *continuous outflow* of atoms (ῥεῦσις συνεχής) radiates from the surface of the bodies (ἀπὸ τῶν σωμάτων τοῦ ἐπιπολῆς); such an outflow preserves for a long time the position and order of the atoms (θέσιν καὶ τάξιν τῶν ἀτόμων ἐπὶ πολὺν χρόνον). This means that images *only gradually* lose their perfect correspondence to the object from which they originate. Their great speed of generation and movement gives the impression of a single ‘continuum’ (§ 50: τοῦ ἐνὸς καὶ συνεχοῦς); a kind of ‘harmonic impulse’ (σύμμετρον ἐπερειασμόν) is produced as a consequence of the “rhythmic vibration of atoms in the depth of the solid object” (ἐκ τῆς κατὰ βάθος ἐν τῷ στερεμνίῳ τῶν ἀτόμων πάλλσεως). The final result is a perception – followed by a representation, as attested by the expression φαντασίαν ἐπιβλητικῶς τῇ διανοίᾳ ἢ τοῖς αἰσθητηρίοις, “a representation due to the apprehension performed by the mind and sensory organs” – which preserves the form of the solid object: to all intents and purposes, the coming about of such a representation is due to the intrinsic continuity in the succession of the atoms (see also *Nat.* II, col. 94.10-11: περαιούσιν συνεχέστερον) which constitute the *simulacra* or their residual trace (κατὰ τὸ ἐξῆς πύκνωμα ἢ ἐγκατάλειμμα τοῦ εἰδώλου). The mechanics of vision summarised here are perfectly analogous to those of hearing: in the latter case, too, Epicurus underlines the indispensable continuity and necessary persistence of the sensible qualities of what is becoming detached from the solid object (§ 53: ἀναφερομένης τινὸς ἐκεῖθεν συμπαθείας).

One can infer from this description that truth vanishes and leaves room for error when continuity is lost.

In Epicurean physics, continuity therefore plays a decisive role in the transmission of images, as it ensures the identity of form (ὁμοιομορφία, *Nat.* II, col. 38.2; ὁμοιομορφόν, *ibid.* col. XXIII.18). See also *Hdt.* 52, which mentions the succession of ὁμοιομερεῖς ὄγκοι, i.e. of those elements made up of similar parts that carry the sound toward the auditory system.

According to the *Letter to Herodotus*, continuity also plays a fundamental role with respect to representations: the ὁμοιότης (*Hdt.* 51) between representations runs parallel to ὁμοιότης with respect to external reality. This notion seems in line also with what can be inferred from the well-known gloss to *RS I*, where mention is made of the role of the mind when knowing the gods (τοὺς θεοὺς λόγῳ θεωρητούς) and producing a representation thereof thanks to a

continuous outflow of similar *simulacra* (ἐκ τῆς συνεχοῦς ἐπιρρύσεως τῶν ὁμοίων εἰδώλων); formal similarity (ὁμοειδεῖα) can indeed be attributed both to *simulacra* and to the representation of the gods whom humans believe that they know.

With regard to the mechanism of representation, Sextus Empiricus, as if commenting upon the Epicurean thesis, mentions the example of the tower which looks small and round from afar, but large and square from up close.¹⁴ However, one can infer from Sextus' argument that the truth of representation is never challenged, insofar as the object of both representations (the one from afar and the one from up close) remains the same: in other words, according to Sextus's reading of Epicurus, representations are always true because they clearly coincide with sensible perceptions, whereas beliefs (δόξαι) can be either true or false.¹⁵ In this perspective, however, the identification of the error appears to be restricted within the limits of the subject's judging activity,¹⁶ in perfect conformity with the Stoic perspective, which famously regards the ἡγεμονικόν as the place and occasion of the 'assent' (and therefore of the judgment and possible error) with respect to what is being perceived. The situation presented in the passages drawn from the *Letter to Herodotus* is not quite analogous. Indeed, for Epicurus, two variables seem to be at play:

- the different atomic movement that manifests itself inside of us during

¹⁴ Sext. Emp. *Adv. dogm.* 1.208: ἐκ μακροῦ μὲν διαστήματος μικρὸν ὄρα τὸν πύργον καὶ στρογγύλον, ἐκ δὲ τοῦ σύνεγγυς μείζονα καὶ τετράγωνον. On this passage, see Everson 1990a, 161-83; see also the commentary by Leone 2012, 104-6. Sedley 1992, 44-55, believes that the source to which Sextus Empiricus is referring is not an Epicurean philosopher, but Antiochus of Ascalon; moreover, the technical terminology (e.g., the concept of *phantasia katalēptikē*) suggests a Stoic origin even before Antiochus.

¹⁵ Sext. Emp. *Adv. dogm.* 1. 210: "For this reason [i.e. because our senses allow us to grasp only what is evident and strikes us] all representations are true, whereas beliefs are not all true. The latter present a difference: some are true and others are false. Beliefs are the judgments we ourselves make about representations, some of which we consider to be accurate and others to be inaccurate", διόπερ αἱ μὲν φαντασῖαι διὰ ταῦτα πᾶσαι εἰσιν ἀληθεῖς, <αἱ δὲ δόξαι οὐ πᾶσαι ἦσαν ἀληθεῖς>, ἀλλ' εἶχόν τινα διαφορὰν. τούτων γὰρ αἱ μὲν ἦσαν ἀληθεῖς αἱ δὲ ψευδεῖς, ἐπεὶπερ κρίσεις καθεστᾶσιν ἡμῶν ἐπὶ ταῖς φαντασίαις, κρίνομεν δὲ τὰ μὲν ὀρθῶς, τὰ δὲ μοχθηρῶς. See Machuca 2013, 109-19, about the skeptical version of the Epicurean criterion of truth.

¹⁶ Sext. Emp. *Adv. dogm.* 1.203 makes it immediately clear that he means to discuss the relationship between representation and belief: "About the correlation between these two facts – representation and belief – Epicurus claims that representation, which he also calls self-evidence, is always true", Ἐπίκουρος δὲ δυεῖν ὄντων τῶν συζυγούντων ἀλλήλοις πραγμάτων, φαντασίας καὶ [τῆς] δόξης, τούτων τὴν φαντασίαν, ἣν καὶ ἐνάργειαν καλεῖ, διὰ παντὸς ἀληθῆ φησὶν ὑπάρχειν. About the incongruence between the Epicurean interpretation of representation and error and Sextus' interpretation of Epicurus' position, see Maso 1999, 188-94.

the act of apprehension (*Hdt.* 51: ἄλλην τινὰ κίνησιν ἐν ἡμῖν αὐτοῖς συνημμένην μὲν τῇ φανταστικῇ ἐπιβολῇ); on this basis, falsity and error (τὸ δὲ ψεῦδος καὶ τὸ διημαρτημένον) depend on our adding to or modifying what we are perceiving during the act of judging;

- the distance-induced corruption of *simulacra* during the outflow of atoms produced by the real external object as they radiate toward the body which is capable of perceiving them; despite its continuous nature, such an outflow cannot ensure a perfect correspondence between what is being radiated and what will eventually be perceived.

Epicurus takes both variables into account. This double level is precisely the reason why Epicurus' memorable claim that "all perceptions are true"¹⁷ is neither trivial nor contradictory. Such a claim can mean that our senses never lie not only because they refer to something 'real',¹⁸ but also because there is no reason to doubt that the perception of the senses, on this particular level, treats them *as* true.¹⁹

What is crucial to our understanding of the Epicurean doctrine is that, in the

¹⁷ Actually, the claim is not 'literally' present in the Epicurean texts in our possession; the claim can be inferred from subsequent quotations and comments. See in part. Sext. Emp. *Adv. dogm.* 2.9: ὁ δὲ Ἐπίκουρος τὰ μὲν αἰσθητὰ πάντα ἔλεγεν ἀληθῆ καὶ ὄντα, "Epicurus claimed that all *sensible objects* are true and existing". In 1.204 it is claimed that "all *representations* are true", πᾶσαι αἱ φαντασίαι ἀληθεῖς. Plut. *Adv. Col.* 1109 A-B writes that for an Epicurean "all *representations that come from a sensation* are true", πᾶσας εἶναι τὰς δι' αἰσθήσεως φαντασίας ἀληθεῖς. Taylor 1980, 105-24, discusses these witnesses and observes at 117 that, in his opinion, Epicurus means to claim 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". In the case of vision, however, such an object must be the *eidōla*.

¹⁸ Long 1971, 116, reminds us that, for the Greek, the value of 'truth' is more than proportional [is 'proportional' the right word here?]: "In Greek ... ἀληθῆς is regularly used to designate what is real or actual as well as the truth of statements. Epicurus' application of ἀληθῆς to feelings and sensations is perfectly intelligible if we take him to be saying that these necessarily give us a perch on certain facts, namely: that of which they are the awareness". His thesis is that "The 'truth' value of momentary feelings and sensations is purely subjective, whereas for an objective test of ἀλήθεια feelings and sensations must be 'clear' and co-ordinated with πρόληψις".

¹⁹ See in particular Everson 1990a: "It might seem tempting, then, to see the desired conclusion to be not that all perceptions *are* true but rather that all perceptions must be treated as if they are true". Everson's suggestion allows us to distinguish between contrasting perceptions. In any case, truth would remain connected to the external object by which these perceptions are entirely determined. Plutarch already followed the same line of interpretation in *Adv. Col.* 1121 A-B: when we encounter the image of a tower or of an oar, the Epicureans "Do not allow us to say that the tower is round or that the oar is bent: they merely confirm their perceptual experiences and representations, but with no intention to admit that they correspond to external objects", προσαποφαινέσθαι δ' οὐκ ἐᾶντες ὅτι στρογγύλος ὁ πύργος ἐστὶν ἢ δὲ κόπη κέκλασται, τὰ πάθη τὰ αὐτῶν καὶ τὰ φαντάσματα βεβαιουσι τὰ δ' ἐκτὸς οὕτως ἔχειν ὁμολογεῖν οὐκ ἐθέλουσιν.

case of vision, *eidōla* are the true objects to which our senses passively refer. This is why there would be no point in any form of radical scepticism: for Epicurus, *eidōla* are concrete external objects about which perception cannot possibly lie. As one can easily gather, this *leaves open the question* of how to certify the truth between the *eidōla* and the object from which they originate.

Conversely, it is important to assess how these two variables independently contribute to the coming about of errors: significantly, Epicurus suggests the solution to the epistemological/gnoseological problem about the truth which we know by resorting to a kind of *a posteriori* counterevidence; the true pivotal point lies in the confirmation (or invalidation) – i.e. in the truth (or falsity) – of our representations and our proleptic experiences.²⁰ Such a procedure, however, also allows for the possibility that something may be erroneously judged to be true:²¹ in practice, this means denying not only the identity between belief and scientific truth, but also the immediate truth of representation (that same truth so clearly supported by Sextus Empiricus). This is not meant to question the truth of the *perception as such* (i.e. of αἴσθησις): the Stoics and the Epicureans both agree on this;²² what is being emphasised here is that the corruption (of *simulacra*), which underlies the error and subsequently determines the way in which a sensible body represents what it has perceived, may have already taken place at the moment of perception.

The articulation of the distinct stages of visions according to the Epicurean doctrine could therefore be summarised as follows:

²⁰ Despite the importance of *prolēpsis* for the Epicurean doctrine (see *Nat.* [31] 3.16.8-11 Arrighetti), only Diog. Laert. 10.33 provides a definition of the term: what is more, the definition is problematic, insofar as the doxographer avails himself of typically Stoic terminology (see, for instance, the concept of ‘universal notion inside of us’, καθολικὴ νόησις ἐναποκειμένα, i.e. the memory of external entities that presented themselves to the mind in the past). As for the point that interests us here, the Epicurean *prolēpsis* is clearly influenced by the mechanics of vision and, in particular, by the role of *epibolē*. Cicero’s misinterpretation in *Nat. d.* 1.44-45; 49 and 106-110, where he apparently fails to notice the difference between the formative process of πρόληψις and that of ἐπιβολὴ τῆς διανοίας, is an indirect confirmation of this. In practice, it would seem that Epicureans consider πρόληψις as a kind of ἐπιβολὴ τῆς διανοίας, an ‘apprehension performed by the mind’. On this, see Glidden 1985, 187-201.

²¹ About the inevitable nature of this implication, see Morel 2009, 126-32.

²² Like the Epicureans, the Stoics regarded sensations and *prolepseis* as necessary conditions in order to express a judgment or, rather, a cataleptic representation: see for instance Aët. *Plac.* 4.9.4 (= SVF 2.78): “The Stoics say that what is conveyed by the senses is true; and what is conveyed by representations is partly false, partly true”, Οἱ Στωϊκοὶ τὰς μὲν αἰσθήσεις ἀληθεῖς, τῶν δὲ φαντασιῶν τὰς μὲν ἀληθεῖς, τὰς δὲ ψευδεῖς. On the Stoic conception of *prolepsis*, see Sandbach 1971, 22-37.

1. radiation (ἀπόρροια) of the image (εἶδωλον) from the body: such images are outlines (τύπος) structured upon the surface of the bodies (ἐπιπολή τῶν σωμάτων);
2. movement through space (ἡ φορά) ensured by a pushing process (ἐξωστικός τρόπος: *Nat.* II col. 112.3-4 ≈ XVII.7-9) possibly leading to:
 - a) deviation (εἰς ἄλλο φορά: *Nat.* II, col. 38.8-9) following a collision (ἀντικοπή: *Hdt.* 46-47 / σύγκρουσις: *Hdt.* 40-42) with other bodies,
 - b) corruption (see στρέψις: *Nat.* II, col. 38.6; συγχεῖν: *Hdt.* 48; σύγχυσις: *Nat.* II, 80.2-3) of *simulacra* and subsequent loss of the perfect identity with the original form (μορφή);
3. perception (αἴσθησις, ἐπαίσθησις, πάθος) / apprehension (ἐπιβολή) of the *simulacra* by a sensible body;²³
4. possible interference caused by an inner movement of the mind (κίνησις ἐν ἡμῖν);
5. final representation (φαντασία) of what been perceived / apprehended;
6. belief (δόξα) about the representation, waiting to be confirmed or invalidated: such a belief depends on what is – often inappropriately – added²⁴ to or removed from the perception at the moment of its representation.

Nothing in the fragments of *Peri phuseōs* II appears to contradict this articulation: to the contrary, a cross-examination of the information inferred from both sources appears to confirm their reliability as well as the quality and inner consistency of the Epicurean doctrine.

Conclusion

If we now want to define the meaning of ‘truth’ in relation to the Epicurean theory of vision, we must conclude that we are dealing with a complex, ‘correspondence-based’ interpretation.

- 1) The first question concerns the truth of the images radiating from a body (see *Hdt.* 51), i.e. of their correspondence to the body from which they originate;
- 2) the second question concerns the evidence of perception and of the corre-

²³ Perception and apprehension are clearly two aspects of the same phenomenon. As mentioned above, it all depends on the perspective from which the phenomenon is observed.

²⁴ See *Hdt.* 50: Τὸ δὲ ψεῦδος καὶ τὸ διημαρτημένον ἐν τῷ προσδοξαζομένῳ αἰεὶ ἐστίν, “The falsehood and the error always consist in what you add in the opinion”.

spondence (ὁμοιότης / ὁμοιομορφία) between what is represented and the perceived images;

3) the final question concerns the truth between what is being represented by the mind and what is subsequently confirmed or invalidated.

The truth addressed on this last level is undoubtedly of a logical-coherentist kind: the tool proposed by Epicurus can connect *a posteriori* the immediate results of physical perception (always true as such, but *truly correspondent* to the original solid body only if the *simulacra* manage to preserve the similarity without being corrupted) with what is considered as the represented body as such (a representation whose *truthfulness* is not *immediately observable*). The logical process appears to depend on a consistency which is to be ascertained within a temporal frame of reference: Epicurus requires an absolute analogy between the moments of perception, of representation and of confirmation / invalidation –²⁵ an analogy, however, which can be confirmed only after a further experience of perception and representation.²⁶ Any conclusive judgment about truth is thereby deferred to an *a posteriori* factual dimension –²⁷ that very same truth which images would seem to immediately possess and which they contribute to produce by means of their atomic structure²⁸.

²⁵ Verbal forms of ἐπιμαρτυρέω and ἀντιμαρτυρέω can be found in *Nat.* II. col. 117.3-4 ≈ XXIV.7-8 and coll. 110.25-111.1 ≈ XV.19-20 respectively. As can be inferred from *Hdt.* 51 and from *RS* XXIV (and as confirmed by Diogenes Laertius 10.34 and by Sextus Empiricus *Adv. dogm.* 1.216), Epicurus distinguishes within each of them between the criteria of truth and falsity, and underlines the non-identity between confirmatory testimony and lack of contrary testimony, ἐπιμαρτύρησις καὶ οὐκ ἀντιμαρτύρησις, as well as between lack of confirmatory testimony and contradictory testimony, οὐκ ἐπιμαρτύρησις καὶ ἀντιμαρτύρησις. On this, see Asmis 1984, 190-6.

²⁶ This *a posteriori* operation, a kind of *Überprüfungsverfahren*, is configured – according to Striker 1974, 73-82 – as a genuine truth criterion within Epicurus' overarching theory of knowledge.

²⁷ It is worth observing that, in the name of the impossibility to bypass the temporal implication of an *a posteriori* judgment, Epicurus is ready to give up on the absolute validity of the principle of bivalence (see Cic. *De fato* 21: *si mihi libeat adsentiri Epicurus et negare omnem enuntiationem aut veram esse aut falsam eam plagam potius accipiam quam fato omnia fieri comprobem*; Maso 2014, 129-30). For Epicurus, the necessity of facts – i.e. the truth or falsity of data and events – makes sense only with respect to what has already happened (and has therefore been confirmed or invalidated); with respect to the future (i.e. to what could only possibly happen and have the character of truth), Epicurus appears to be powerless.

²⁸ I discussed this conclusion in particular with David Konstan: I thank David for his remarks and for having improved my English.

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