

Reiteration in Sensibility According to Aristotle Perception and *Phantasia*

Giulia Mingucci

Università Ca' Foscari Venezia, Italy

Abstract This paper explores the role of perceptual reiteration in the formation of experience according to Aristotle's psychology and epistemology. Beginning with an analysis of sense perception (*aisthesis*), it examines the retention of perceptual traces (*phantasia*) and their reiteration in experience (*empeiria*). This ultimately establishes the fundamental role of sense perception in grounding our epistemic and practical relationship to reality, revealing a novel perspective on how reiteration shapes the behaviour of both humans and non-humans.

Keywords De Anima. Aristotle's psychology. Aristotle's epistemology. Perception. Imagination.

Index 1 Introduction. – 2 *Aisthesis*. – 3 *Phantasia*. – 4 Reiteration. – 5 *Phantasia* and Reality.



Peer review

Submitted 2025-05-12
Accepted 2025-09-15
Published 2025-12-10



Open access

© 2025 Mingucci | © 4.0



Citation Mingucci, Giulia (2025). "Reiteration in Sensibility According to Aristotle". *JoLMA*, 6(2), 25-40.

1 Introduction

Aristotle's *Metaphysics* begins with the celebrated line: "All human beings by nature desire to know. An indication of this is the delight we take in our senses (*aistheseis*)".¹ In Aristotle's psychology and epistemology, sense perception (*aisthesis*) plays a foundational role, as the starting point of the relationship that human and non-human animals have with their environment, both on a practical level, allowing them to distinguish what favours or threatens survival, and on a cognitive level, as a basis for the elaboration of knowledge.²

This paper aims to highlight the role played by one of the perceptual capacities of the living being, *phantasia*,³ understood as the ability to retain perceptual stimuli. The analysis starts with the description of the perceptual act (see § 2), from which the "fantastic" motion originates (see § 3), and then clarifies the role of the reiteration of perceptual stimuli in the formation of experience (see § 4). This will show the fundamental place that Aristotle assigns to reiteration in the structuring of the relationship of human and non-human animals with the external world (see § 5).

2 *Aisthesis*

Aristotle dedicates a large part of his scientific treatment on the soul (*psyche*) to sense perception (*aisthesis*): eleven chapters of *De Anima* are in fact dedicated to the analysis of perception from a general point of view (*katholou*) (2.5, 2.12), of its objects (*aistheta*) (2.6), of each of the five senses (2.7-11), and of the entire perceptual system, that is, the unified system consisting of the five individual senses, their interaction and integration ("common sense"),⁴ and *phantasia* (3.1-3).

Aristotle describes actual perception as the exercise of a faculty of the soul, the perceptual faculty, which essentially involves bodily organs: the five sense organs and the central sense organ, the heart, which preserves the sensory stimuli obtained from peripheral sense organs. It is produced by the contact, through a medium

1 Arist. *Metaph.* 1.1.980a21-22, cf. Ross 1924 slightly modified.

2 Cf. Arist. *Metaph.* 1.1.980a22-27.

3 I leave the term *phantasia*, as well as its correlative *phantasma*, untranslated, given the difficulty of rendering its meaning in modern languages: in this regard, see, among recent studies, Caston 2021; Radovic 2021. The exegetical debate on Aristotelian *phantasia* will be briefly resumed below (see § 3).

4 I follow Gregorić 2007 in understanding "common sense" not as a separate sense that is "added to" and transcends the five individual senses, but as one of the capacities of the unified perceptual faculty.

(*metaxu*) – adherent to the body (i.e. the flesh) in the case of the senses of contact or external to the body (i.e. air and/or water) in the case of the distal senses⁵ – of the perceptible object (*aistheton*) with the sensory organ (*aistheterion*).

The impact of the perceptible on the sense organ produces a *kinesis tis*,⁶ a particular type of “motion” or process, known in the literature with the expression “perfective alteration”: it is a particular form of alteration that brings to completion the capacity that defines the sense organ as such, that is, as a bodily part capable of perceiving.⁷

In the *De Anima*, Aristotle describes this particular *kinesis* using the analogy of the imprint in the wax:

T1 It is necessary to grasp, concerning the whole of perception generally, that perception is what is capable of receiving perceptible forms without the matter, as wax receives the seal of a signet ring without the iron or the gold. It acquires the golden or the metallic seal, but not insofar as it is gold or metal. In a similar way, perception is also in each case affected by what has colour or taste or sound, but not insofar as each of these is said to be something, but rather insofar as each is of a certain quality, and according to its <perceptible> form. (Arist. *de An.* 2.12.424a17-24, cf. Shields 2016 slightly modified)

In sense perception, the sense organs undergo the action of the perceptible “without the matter” (T1, 424a18-19). This expression has been a major point of contention among scholars.⁸ A prominent view, defended by scholars such as Myles F. Burnyeat,⁹ holds that it should be understood in a subjective sense, that is, in reference to the matter of the perceiving subject: on this reading, perception is a “spiritual change” and a “pure transition of forms”, referring to a cognitive process rather than any physiological change in the perceiving subject. I hold instead the alternative, objective reading that refers to the matter of the sensible object itself. In short, through perception

5 Cf. Arist. *de An.* 2.11.423a6-17, b1-20, 26-27; 3.1.424b27-30; 13.435a11-25.

6 Cf. Arist. *de An.* 2.4.415b24; 5.416b34.

7 Cf. Arist. *de An.* 2.5.

8 For a clear and effective synthesis of the exegetical debate on the perceptual process, cf. Caston 2005.

9 Burnyeat 1995a; 1995b; 2001.

we acquire the perceptible qualities (*aistheta*)¹⁰ of external objects, i.e. colours, sounds, smells, tastes, tangible qualities – in particular temperature (hot, cold) and texture (dry or solid, wet or fluid)¹¹ – and their “contrary differences”, such as, for example, the different colour shades within the black-white qualitative range.¹² These five kinds of perceptible qualities are each perceived by a specific sense organ and are therefore called “exclusive perceptibles” (*ta idia*), because they are acquired, each, by a specific sense modality: colours by sight, sounds by hearing, odours by smell, flavours by taste, tangible qualities by touch.¹³

Among the perceptibles, however, Aristotle does not only include colours, smells, sounds, flavours, temperatures, and textures:

T2 In the case of each sense, it is necessary to speak first about perceptible objects (*ta aistheta*). Perceptible objects are spoken of in three ways: in two cases we say perceptible objects are perceived in their own right, and in one co-incidentally. Of the first two, one is exclusive to an individual sense and the other common to them all. [1] By exclusive (*idion*) I mean what cannot be perceived by another sense and about what one cannot be deceived. For example, sight is of colour, hearing is of sound, and taste is of flavour, whereas touch has a number of different objects. In any case, each sense discerns these and is not deceived that there is a <specific> colour or that there is a <specific> sound – as opposed to what or where the coloured or sounding thing is. Accordingly, these sorts of objects are said to be exclusive to each sense. [2] Common perceptibles (*koina*) include motion, rest, number, shape, and magnitude, since these sorts of objects are exclusive to no one sense but are, rather, common to them all. For in some cases movement is an object of perception for both touch and sight. [3] Something is said to be an object of perception co-incidentally (*kata symbebekos*) if, for

10 I interpret the adjective *aistheton* as referring to the specific qualities of an external object that are capable of acting on a perceiver to bring about perception. Essentially, *aistheton* is the sensible form or quality of a given *pragma* which causes perception. While this position is defended, e.g., by Johnstone 2022, Corcilius 2022 offers a different view, contending that perception is never of qualities but is always immediately and holistically of 3-D objects.

11 The terms *thermon*, *psychron*, *xeron*, and *hygron* do not have perfect equivalents in modern languages. *Xeron* and *hygron* may mean “dry” and “wet” respectively, but according to Aristotle’s definition of the two terms (*GC* 2.2.329b30-31) they seem to refer more to “solid” and “fluid” respectively, although this second meaning is not always maintained either. These four qualities are considered fundamental because all the others can be reduced to them: cf. Arist. *de An.* 2.11.423b27-29; see also *GC* 2.2.329b6-330a29; *PA* 2.1.646a16-20.

12 Cf. Arist. *de An.* 2.10.422a20-31, b10-14; 11.424a2-12; 3.2.426b8-12; 7.431a24-b1.

13 Cf. Arist. *de An.* 2.6 [T2], 418a11-14.

example, the white thing should be the son of Diares. There is co-incidental perception of him, because he coincides with the white thing, of which there is perception. For this reason, one is not affected by an object of perception insofar as it is such a thing as the son of Diares. Among things perceived in their own right, exclusive objects are properly perceptible objects; and it is to these that the essence of each sense is naturally relative. (Arist. *de An.* 2.6.418a7-25, cf. Shields 2016 slightly modified)

In addition to the *idia*, we are able to perceive the “common perceptibles” (*ta koina*) (T2, 418a10-11, 17-20): “geometric and kinetic characteristics of bodies”¹⁴ that are “exclusive to no one sense but rather common to them all” (T2, 418a18-19). A further kind of perceptible is the so-called “co-incidental” (*kata symbebekos*) (T2, 418a9, 20-24): an individual substance, for example “the son of Diares”, to which a given perceptible quality, for example the white colour (exclusive to sight), is inherent as its attribute (T2, 418a21-23); or even a perceptible exclusive to another sense, for example a flavour (exclusive to taste) perceived by sight.¹⁵

With respect to the reception of exclusive perceptibles, these forms of perception are *complex*, aimed at grasping not a single unrelated quality (“monomodal perception”) but an integrated set of perceptual stimuli (“multimodal perception” and “intermodal perception”):¹⁶ for example, the colour yellow as associated with a given taste (e.g. bitter) and belonging to this particular object, e.g. bile.¹⁷ Involving some synthesis or connection of incoming perceptual stimuli – such as their comparison or association – these complex forms of perception require that these stimuli be somehow ‘retained’, either momentarily or durably. Aristotle attributes this function – i.e. the conservation of perceptual stimuli – to a specific capacity within the perceptual system: *phantasia*.

¹⁴ Cf. Johnstone 2022, 169.

¹⁵ Cf. Arist. *de An.* 3.1.425a22.

¹⁶ Consistent with his reading of *aistheton* as a 3-D perceptible object (cf. fn. 10, *supra*), Corcilius 2022 rejects the distinction between simple perception (of exclusive perceptibles) and complex perception (of common and co-incidental perceptibles). I, however, maintain this distinction, as I consider it a key to understanding Aristotle’s introduction of *phantasia* in *De anima* III.3, as we shall see. The expressions “monomodal perception”, “multimodal perception”, and “intermodal perception” are here adopted from Zucca 2015, 151-97, who uses them to characterize the perception of exclusive, common, and co-incidental perceptibles, respectively.

¹⁷ Cf. Arist. *de An.* 3.1 [T9], 425b1-2.

3 *Phantasia*

In *De Anima*, *phantasia* is presented as the *trait d'union* between perceptual and rational capacities: on the one hand, in fact, it belongs to the perceptual system,¹⁸ while on the other it is closely connected with thought.¹⁹ It is no coincidence, therefore, that Aristotle deals with this capacity in the third chapter of the third book of the treatise: it is in fact a place of ideal hinge between the analyses of the perceptual (2.5-3.2) and intellectual (3.4-6) faculties.

The two-faced nature of *phantasia* can also be inferred from the etymological and conceptual link of the noun both with the verb *phainesthai*, understood in terms of “perceptual appearance”, and with the verb *phantazesthai*, understood in terms of “mental imagery”, i.e. the free and voluntary creation of mental images.²⁰ These two aspects can be traced back to what can be considered the essential prerogative of *phantasia*, namely the ability to produce *phantasmata*.²¹

T3 If *phantasia* is ‘that in virtue of which we say that a *phantasma* is produced in us’, and we refrain from speaking metaphorically, will it be one of these: a capacity or state in virtue of which we discriminate and get things right or wrong. (Arist. *de An.* 3.3.428a1-4, cf. Shields 2016 modified)

Contrary to common interpretations of *phantasmata* as either internal images or physiological processes, I argue they are better understood as lasting residual traces of a perceptual process.²² According to Aristotle, in fact, the perceptual *kinesis* continues to exercise itself for some time even after the perceptible has moved away from the perceptual horizon, in the form of post-perceptual or ‘fantastic’ *kinesis*:

T4 Since it is possible when something is set in motion for something else to be moved by it, and since *phantasia* seems to be a *kinesis tis* and not to occur without perception, but rather to occur in things which are endowed with perception and to be

18 Cf. Arist. *de An.* 2.3.413b22; 3.3.427b14-16; [T4], 428b11-13, 429a1-2.

19 Cf. Arist. *de An.* 1.1.403a8-10; 3.3.427b14-16, 27-29; 7.431a16-17, b2; 8.432a8-14; 10.433a9-10.

20 In trying to provide a unitary definition of the notion of *phantasia*, scholars usually tend to privilege one or the other aspect: for *phantasia* as a “perceptual appearance”, cf. e.g. Schofield 1978; Nussbaum 1978, 221-69; as “mental imagery”, Lefebvre 1988; 1992; Wedin 1988, 64-94.

21 Cf. also Arist. *Insomn.* 2.460b16-18.

22 Cf. Mingucci 2025. For a recent review of the scholarly debate on *phantasmata*, see also Winzenrieth 2025.

of those things of which perception is, and since it is possible for *kinesis* to be effected by the actuality of perception, which *kinesis* is necessarily similar (*homoia*) to the perception, this *kinesis* would be neither possible without perception nor could it belong to things which are not endowed with perception; and it is possible for what has *phantasia* both to act and be affected in many ways in accordance with it, and for it to be either true or false [...]. If, then, nothing other than *phantasia* has the features mentioned (and this is what was claimed), then *phantasia* would be a *kinesis* effected by actual perception. (Arist. *de An.* 3.3.428b10-17, b30-429a2, cf. Shields 2016 slightly modified)

Like perception, *phantasia* is also a *kinesis tis* (T4, 428b11), “effected by actual perception” (T4, 429a1-2).²³ Perceptual *kinesis* persists at first in the peripheral sense organs as a kind of ‘reverberation’, and then can be ‘fixed’ in the central sense organ, i.e. the heart:

T5 The affection is not only in the sense organs when they are perceiving, but even in those that have stopped [perceiving], both at a depth and on the surface. And it is manifest that whenever we may continuously perceive something; for changing the perception the affection follows, [1] e.g., from the sun into the dark; for it happens that one sees nothing on account of the motion due to the light still subsisting in the eyes. [2] Also, if we may look at a single colour for a long time, either white or green, that to which we might shift our vision appears (*phainetai*) of that sort [of colour]. [3] Also, if, having looked at the sun or some other bright thing, we may close our eyes, to those observing closely there appears (*phainetai*), in a direct line with the path of one’s vision, at first, a thing of that sort in colour, then it shifts to crimson, and then to purple, until it comes to a black colour and disappears. [4] And for those changing away from the things being moved, e.g., away from the rivers, especially away from those flowing swiftly, it appears (*phainetai*) that things at rest are being moved. [5] And people become hard of hearing from great sounds, and hard of smelling from strong smells, and <similarly> in similar cases. (Arist. *Insomn.* 2.459b5-22, cf. Polansky 2024 slightly modified)

The persistence of the *kinesis* produced by a perceptible quality in the corresponding sensory organ sometimes influences (cf. T5: [2], [4]), if not even prevents (cf. T5: [1], [5]), the perception of other perceptible qualities. This post-perceptual or fantastic *kinesis* is “similar” (*homoia*, T4, 428b14; cf. also *toiouton*, T5, 459b16) to the

23 Cf. also Arist. *Insomn.* 1.459a17-18.

original perceptual one, i.e. it preserves the salient characteristics of the original perceptual stimulus by triggering analogous causal/physiological mechanisms, ‘as if’ it came from the external sense object originally perceived.

From the example (3) of T5 it can be inferred that the perceptual *kinesis* gradually diminishes from the sense organ until it disappears. Crimson, purple, black are the immediate effect of actual perception: temporary perceptual traces that affect the sense organ during the visual perception and remain for some time, however limited, even after the perceptible has moved away from the perceptual horizon. Aristotle gives these perceptual ‘reverberations’ the name of *aisthemata*.

Depending on the psychophysical condition of the subject, the *aisthemata* can also be retained “at a depth” (T5, 459b7), i.e. in the central sense organ, in the form of *phantasmata*:

T6 The *kinesis* arising inscribes like a sort of imprint of the *aisthema*, just as the persons impressing with seals. (Arist. *Mem.* 1.450a30-32, cf. Polansky 2024 slightly modified)

Phantasmata derive from *aisthemata*:²⁴ they are “like a sort of imprint” (*hoion typon tina*) of *aisthemata* (T6, 450a31).

By using the term *typos*, Aristotle intends to emphasize two fundamental aspects of a *phantasma*: first, its enduring character; second, its similarity to that from which it originates.²⁵ The use of the adverb “like” (*hoion*) and the indefinite *tis* with an attenuative function (“a sort of”) is important: the *phantasma* is not in fact an exact copy of the *aisthema*, since certain psychophysical conditions also contribute to its formation, and in particular the physiological conditions of the blood and the heart,²⁶ as well as past experiences – an aspect which is particularly important for our discourse, as we will see (see § 4).

Phantasia, understood as the ability to retain perceptual traces (see T3), plays a key role both during the act of perceiving, allowing the unification of the various perceptual stimuli available to the perceiving subject, and subsequently, in their re-elaboration, conscious – through activities such as fantasizing, remembering

24 Cf. also Arist. *de An.* 3.8.432a9-10; *Insomn.* 3.461a18-19, b21-22. For an alternative account of the relationship between *aisthemata* and *phantasmata*, see, for example, Bubb 2019.

25 Cf. LSJ, s.v. ‘typos’: “VII. archetype, pattern, model, capable of exact repetition in numerous instances [...]; 2. character recognizable in a number of instances, general character, type [...]. VIII. general impression, vague indication [...]. 2. outline, sketch, general idea”. Cf. also Bonitz 1870, 779a24-46.

26 Cf. Arist. *Mem.* 1.450a32-b11; 2.453a14-b7; *Insomn.* 3.461a8-30.

and thinking²⁷ – or involuntary, as happens in dreams.²⁸ In this perspective, “perceptual appearance” and “imagination” are nothing but different expressions of *phantasia*, resulting from its involvement in the processing of perceptual stimuli.

4 Reiteration

Already at the level of the basic dynamics of *phantasmata* formation – in a nutshell: perceptual *kineseis* persist for some time in the peripheral sense organs in the form of *aisthemata* and then leave lasting traces in the central sensorium, i.e. *phantasmata* – it is possible to glimpse the role of reiteration in the genesis of experience (*empeiria*):

T7 From perception there comes memory (*mneme*), as we call it, and from memory (when it occurs often [*pollakis*] in connection with the same sort of thing) experience (*empeiria*); for memories which are many in number form a single experience. (Arist. *APo.* 2.19.100a3-6, cf. Barnes 1975 slightly modified)²⁹

In the concluding chapter of the *Posterior Analytics*, Aristotle illustrates the process of inductive generalization (*epagoge*) by referring to the *reiteration* of the imprint of the same type of perceptual stimulus – as indicated by the expression “when memory occurs ‘often’ (*pollakis*)” (T7, 100a4).

The lasting trace of a perceptual stimulus is here called “memory” (*mneme*, T7, 100a4), although technically it is *phantasia*. For the imprint of the *aisthema* in the central sensorium is not properly speaking a “memory” (*mnemoneuma*), but a *phantasma*, which can be subject to various cognitive operations: only when it is considered as “in relation to another”, that is, in relation to the original perceptual motion that produced it, is it a memory, that is, a *phantasma* of a specific type (i.e. the mnestic type). When the *phantasma* is

27 For ‘fantasizing’, see Arist. *de An.* 3.3.427b17-24; for ‘memorizing’, *de An.* 3.3.427b19; *Insomn.* 1.458b20-24; *Top.* 8.14.163b28-30; for ‘remembering’, *Mem.* 1.450b20-451a2. For the involvement of *phantasmata* in thought, see: for the elaboration of concepts and stories, *Mem.* 1.449b30-450a9, 450b20-451a2; *Po.* 17.1455a22-26; for deliberation, *de An.* 3.7.431b6-8; 11.434a5-10. In contrast to fantasizing, which is described as “creating (*poiesasthai*) of something before one’s eyes” (*de An.* 3.3.427b19), the other voluntary activities of *phantasia* are described as “placing (*tithenai*) before one’s eyes” (*de An.* 3.3.427b19; *Mem.* 1.450a5; *Insomn.* 1.458b23; *Po.* 17.1455a23), that is, bringing them to one’s attention.

28 Cf. Arist. *Insomn.* 1.459a14-22.

29 Cf. Arist. *Metaph.* 1.1.980a28-981a1.

considered as “in virtue of itself”, without associating it with the past perception that originated it, we do not say that we “remember” it, but that we “we bear it in mind” (*theorein*) or that we “think” it (*noein*); it is therefore an object of theoretical observation (*theorema*) and a concept (*noema*), rather than a memory:

T8 Insofar as in virtue of itself, <the *phantasma* within us> is a *theorema* or a *phantasma*; insofar as in relation to another, it is as a likeness and a *mnemoneuma*. (Arist. *Mem.* 1.450b25-27, cf. Polansky 2024 slightly modified)

Therefore, it is “insofar as in virtue of themselves” that perceptual imprints are the basis of the formation of concepts. The reiteration of the same type of perceptual stimulus is in fact for Aristotle the starting point for the identification of what is common in similar cases observed, thus opening the way to the apprehension of a universal concept (*logos*).³⁰ Since the intelligibles are potentially present in the perceptible forms received by the senses and preserved by *phantasia*, the perceptual faculty is necessary for the understanding of reality, not only in the scientific field, but also, as we shall see (§ 5), in the practical field.³¹

If, then, a given kind of perceptible, for example a given colour, has been perceived together with another kind of a perceptible, for example together with a given flavour, we will be inclined to ‘associate’ them:

T9 The senses perceive one another’s exclusive objects co-incidentally, not insofar as they are the senses they are, but insofar as they are one, whenever perception occurs of the same thing at the same time, for example of bile that it is bitter and yellow (for it most surely does not belong to another sense to say that the two are one). This is also why one is deceived when, should something be yellow, one thinks it is bile. (Arist. *de An.* 3.1.425a30-b4, cf. Shields 2016)

Our ability to perceive bitterness by sight stems from past experience.³² This is rooted in a previous “simultaneous” (*hama*, T9, 425b1) perception by both sight and taste of the same thing, where

30 Cf. Arist. *APo.* 2.19.100a1-3.

31 Cf. in part. Arist. *de An.* 3.8.432a3-9.

32 Cf. Arist. *de An.* 3.3.425a23-24. The manuscript evidence for *anagorizomen* (L, μ , Ha) as an alternative to the reading *hama gnorizomen* (E) is significant. (I am indebted to Justin Winzenrieth for drawing my attention to this point). This reading implies that the co-incidental perception of sweetness by sight is a process of ‘recognition’ based on a previous perception.

two distinct qualities, like the bitter flavour and yellow colour of bile, are perceived “insofar as they are one” (425a31). As a result of this perceptual experience, also known as “cross-modal binding”,³³ when one of these two qualities, e.g. the yellow, is perceived again, the subject is led to perceptually associate it with the perceptible of the other kind, the bitter, and thus also to see the bitter and/or the bile “co-incidentally”.

On a physiological level, this phenomenon occurs because of the conservation of the visual trace of the yellow “together” (*hama*) with the gustatory trace of the bitter; consequently, a subsequent visual stimulation of the yellow colour will determine the reactivation of both kinds of perceptual traces. This process illustrates that the storage and subsequent reactivation of *phantasmata* follow the order in which the perceptible features of external objects were originally perceived.³⁴

T10 Recollections (*anamnesis*) happen when naturally (*pephyken*) this *kinesis* arises after this; if from necessity (*ex anankes*), it is clear whenever that *kinesis* would be moved, this *kinesis* will be moved; yet if not from necessity but by habit (*ethei*), as for the most part (*hos epi to polu*) it will be moved. (Arist. *Mem.* 2.451b10-14, cf. Polansky 2024 slightly modified)

The order in which the perceptual traces are preserved is especially relevant in the case of recollection (*anamnesis*). While the exercise of memory (*mneme*), i.e. remembering (*mnemoneuein*), consists in having a memory immediately available – that is, a *phantasma* in relation to the past experience that produced it (see T8) –, the exercise of *anamnesis*, i.e. recalling (*anamimneskesthai*), consists in the intentional search for the cause of a *phantasma* which presents itself as disconnected from the original stimulus that produced it. Recalling then consists in tracing back the series of perceptual traces preserved in the central sensorium until the specific trace being sought is found.³⁵

Research is facilitated when the sequence of perceptual traces is “naturally” ordered (cf. *pephyken*, T10, 451b10). While Aristotle suggests that the “natural” order of perceptual traces can be either from necessity (*ex anankes*, T10, 451b12) or by habit for the most part (*ethei, hos epi to polu*, T10, 451b13), the precise meaning of this distinction is not yet clear.³⁶ I propose that the two orders correspond

33 Gregorić 2007, 139.

34 On this point, see also T11, 452a29-30.

35 Cf. Arist. *de An.* 1.4.408b16-17; *Mem.* 2.451b10-452b7.

36 See also the discussion by Polansky 2024, 333-8 *ad Mem.* 451b10-16.

to two distinct types of perceptual association. The necessary order is governed by logical connections, as in demonstrations,³⁷ while the “for the most part” order is based on empirical observations of similar cases. The key insight of this reading is that the latter order is established through the reiteration of the same patterns of perceptual stimuli sequencing and therefore “by habit”, which accounts for its “for the most part” regularity:

T11 And so, if one is moved along an old track, one is moved upon the more customary; for habit (*to ethos*) is already just as nature (*physis*). Hence, what we oftentimes (*pollakis*) conceive, we quickly recollect; for just as in nature this is after this, thus also in [cognitive] activity; and the reiteration creates nature (*to de pollakis physin poei*). (Arist. *Mem.* 2.452a26-30, cf. Polansky 2024 slightly modified)

The result of reiteration is *ethos*, a disposition that becomes so deeply ingrained that it effectively becomes nature – indeed, a “second nature”, to use a now proverbial phrase based on the *Nichomachean Ethics*.³⁸ In this specific context, the statement intends to highlight the profound incidence of reiteration in the cognitive process of *anamnesis*: we are able to recall memory more quickly or easily when we move “along an old track”, which for this reason is more habitual to us.

But habitual experience is not science. Scientific knowledge (*episteme*) is about necessary truths: to know scientifically a given object of inquiry is to understand “the explanation because of which the object holds, that it is its explanation, and also that it is not possible for it to be otherwise”,³⁹ where “not possible to be otherwise” expresses the primary or fundamental meaning of “necessary” (*anankaion*).⁴⁰ This type of necessity, “absolute” or “unconditional” (*haplos*), governs both the form and the contents of the *episteme*.⁴¹ Rather, our experience of our surroundings, natural reality and human affairs, concerns phenomena that can be otherwise or even not be; their mode of occurrence, limited to “for the most part” regularity,⁴² paves the way to exception:

³⁷ Cf. Arist. *Mem.* 2.452a2-3, 17.

³⁸ Cf. Arist. *EN* 2.1.1103a14-26.

³⁹ Arist. *APo.* 1.2.71b9-12, cf. Barnes 1975.

⁴⁰ Cf. Arist. *Metaph.* 4.5.1015a33-36.

⁴¹ Cf. Arist. *APo.* 1.4.73a21-24; 6.74b5-21; 8.75b22-24; *Metaph.* 4.5.1015b6-9; *EN* 6.3.1139b19-25.

⁴² Cf. Arist. *APr.* 1.3.25b14-15; *PA* 3.2.663b27-29; *GA* 1.18.725b16-19; 19.727b29-30; *EN* 1.1.1094b19-22; 3.5.1112b7-8.

T12 And since just as in the things by nature occurrences arise contrary to nature, and from chance, still more in the things through habit, in which nature surely does not similarly belong; so that one is moved sometimes indeed there and otherwise, and otherwise when it in some way also draws from there to itself; on account of this indeed whenever we ought to remember a name, if we know one somewhat like it, we blunder on to that. (Arist. *Mem.* 2.452a30-b6, cf. Polansky 2024)

If nature is “imprecise”,⁴³ then even more so is “second nature”, i.e. habit. The regularity according to which empirical phenomena manifest themselves can easily lead us to error: “This is also why one is in error when, should something be yellow, one thinks it is bile” (T9, 425b3-4), for the yellow that I have habitually perceived together with bitterness could instead occur together with sweetness, and belong, instead of bile, to honey.

5 *Phantasia* and Reality

The role that past perceptual traces (*phantasmata*) play in perception underscores the importance that Aristotle attributes to reiteration in shaping our experience of the world: the perceptual stimuli available to the perceiving subject are organized – united or connected, sometimes completed – thanks to the involvement of *phantasmata*. Our past experience, therefore, is not just an archive of perceptual traces, but an active filter that influences our relationship with reality.

Perception and *phantasia* underlie both our understanding of the world and the approach/avoidance behaviours crucial for animal survival. The simplest animals, i.e. animals that are endowed only with the so-called “contact” or “close-up” senses, i.e. touch and taste, such as sponges, discriminate objects that are useful and harmful to their self-preservation on the mere basis of tactile perception and the pleasant or painful feeling they experience.⁴⁴ They are “perceptual proto-evaluations”⁴⁵ of what, in a present situation, is good or bad for the perceiver, that is, in relation to its specific biological needs and their satisfaction.

The approach/avoidance mechanisms of the simplest animals are basic: being stationary (sexile), they survive by feeding on the solid substrate to which they are anchored, and by attracting or removing the desired or repelled object through elementary behaviours, such as

⁴³ Cf. Arist. *GA* 4.10.778a4-9.

⁴⁴ Cf. Arist. *de An.* 2.3.414b1-6; 3.11.433b31-434a3.

⁴⁵ Zucca 2015, 356.

body contraction, the emanation of pleasant or unpleasant odours or tastes, the emission of toxic substances.⁴⁶ The most complex animals, instead, are able to move in their environment “by themselves”: that is, they are endowed with locomotion.⁴⁷

As a movement aimed at obtaining an object of desire (*to orekton*), locomotion requires something more than contact perception. For animals with this ability, cognitively anticipating their object of desire is essential for them to move towards it (or away from something repulsive). For this reason, animals endowed with locomotion possess, in addition to touch and taste, also the distal senses, i.e. smell, hearing and sight, through which they can “perceive at a distance” (*proaisthanesthai*), and therefore in advance, what is useful or harmful to their survival.⁴⁸

It is no coincidence that Aristotle attributes the capacity for *phantasia* exclusively to this latter class of animals.⁴⁹ The object of desire, in fact, in order to be such, must “appear” (*phainetai*) in a certain light, that is, as something good for the animal (*to phainomenon agathon*).⁵⁰ That this object is *really* good – that it is, taking the example of T9, not bile but honey, and therefore yellow, sweet, pleasant and edible – is not relevant for the causal explanation of the animal’s motor behaviour; what matters is that it ‘appears’ to the animal as such, thus motivating it to act in a certain way.

Now, there is a distinction between the motor behaviour of nonhuman animals, even more complex, and that of human beings. The behaviour of non-human animals is motivated by the *phantasia* of a given sense object as something to be pursued or avoided here and now, at the very moment when it presents itself as pleasant or painful.⁵¹ In human beings, on the other hand, the action to be performed may also be determined in the deliberative process, which Aristotle describes as a calculation or reasoning (*logismos*) “about future things with reference to things which are present”.⁵² Human beings are therefore capable of deciding whether or not to pursue what is presented to them as a good by *phantasia*: reasoning can in fact disprove the perceptual appearance, showing, for example, that honey, although it now appears to be a good insofar as it is pleasant, actually turns out to be an evil in the long run for a person suffering from diabetes.

⁴⁶ Cf. Arist. *HA* 5.16.548a28-31, b10-14; *PA* 2.4.650b27-33.

⁴⁷ Cf. Arist. *de An.* 3.9.432b15-17.

⁴⁸ Cf. Arist. *de An.* 2.9.421b11-13; 3.12.434b24-27; *Sens.* 1.436b18-437a1.

⁴⁹ Cf. Arist. *de An.* 3.3.429a5-9; 9.432b15-17; 10.433b27-29.

⁵⁰ Cf. Arist. *de An.* 3.10.433a27-30.

⁵¹ Cf. Arist. *de An.* 3.10.433b8-10.

⁵² Arist. *de An.* 3.7.431b7-8, cf. Shields 2016.

As responsible for the preservation and reactivation of perceptual traces, *phantasia* is also responsible for these errors: it is in fact because of our experience that something can appear to us in an erroneous way. This is precisely the reason why, according to Aristotle, error “is the more typical state in animals and the soul spends more time in this condition”:⁵³ our cognitive states and our actions are fallible because it is *phantasia* that is fallible (T3) and, in most cases, turns out to be false.⁵⁴

Nevertheless, Aristotle retains an epistemologically optimistic perspective. Although he admits that our understanding of reality can be partial and prone to error, and our actions sometimes deceived by false appearances, he trusts that reiteration, through learning and practice, will open the way to scientific knowledge and wisdom.

Abbreviations

The titles of Aristotle’s works are quoted according to the abbreviations adopted in LSJ.

Bibliography

Primary Sources

- Barnes, J. (ed.) (1975). Aristotle, *Posterior Analytics*. Oxford: Clarendon Press.
Polansky, R. (ed.) (2024). *Aristotle’s Parva naturalia*. Berlin: de Gruyter. <https://doi.org/10.1515/9783111243832>.
Ross, W.D. (ed.) (1924). *Aristotle’s Metaphysics*, 2 vols. Oxford: Clarendon Press, vol. 1. <https://doi.org/10.1093/actrade/9780198847762.book.1>.
Shields, C. (ed.) (2016). Aristotle, *De Anima*. Oxford: Clarendon Press. <https://doi.org/10.1093/actrade/9780199243440.book.1>.

Secondary Sources

- Bonitz, H. (1870). *Index Aristotelicus*. Berolini: Reimer. <https://doi.org/10.1515/9783110852332>.
Bubb, C. (2019). “The Physiology of *Phantasmata* in Aristotle: Between Sensation and Digestion”. *Apeiron*, 52(3), 273-315. <https://doi.org/10.1515/apeiron-2018-0015>.
Burnyeat, M.F. (1995a). “Is an Aristotelian Philosophy of Mind Still Credible? (A Draft)”. Nussbaum, M.C.; Rorty, A.O. (eds), *Essays on Aristotle’s De anima*. Oxford: Clarendon Press, 15-26. <https://doi.org/10.1093/019823600x.003.0003>.

⁵³ Arist. *de An.* 3.3.427b1-2, cf. Shields 2016.

⁵⁴ Cf. Arist. *de An.* 3.3.428a12.

- Burnyeat, M.F. (1995b). "How Much Happens When Aristotle Sees Red and Hears Middle C? Remarks on *De Anima* II, 7-8". Nussbaum, M.C.; Rorty, A.O. (eds), *Essays on Aristotle's De anima*. Oxford: Clarendon Press, 421-34. <https://doi.org/10.1093/019823600X.001.0001.002.008>.
- Burnyeat, M.F. (2001). "Aquinas on 'Spiritual Change' in Perception". Perler, D. (ed.), *Ancient and Medieval Theories of Intentionality*. Leiden; Boston: Brill, 129-53. https://doi.org/10.1163/9789004453296_010.
- Caston, V. (2005). "The Spirit and the Letter: Aristotle on Perception". Salles, R. (ed.), *Metaphysics, Soul and Ethics in Ancient Thought: Themes from the Work of Richard Sorabji*. Oxford: Oxford University Press, 245-320. <https://doi.org/10.1093/oso/9780199261307.003.0011>.
- Caston, V. (2021). "Aristotle and the Cartesian Theatre". Gregorić, P.; Fink, J.L. (eds), *Encounters with Aristotelian Philosophy of Mind*. New York: Routledge, 169-220. <https://doi.org/10.4324/9781003008484-11>.
- Corcilius, K. (2022). "The Gate to Reality: Aristotle's Basic Account of Perception". Cohoe, C.M. (ed.), *Aristotle's on the Soul: A Critical Guide*. Cambridge: Cambridge University Press, 122-54. <https://doi.org/10.1017/9781108641517.008>.
- Gregorić, P. (2007). *Aristotle on the Common Sense*. Oxford: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199277377.001.0001>.
- Johnstone, M.A. (2022). "Aristotle on the Objects of Perception". Cohoe, C.M. (ed.), *Aristotle's on the Soul: A Critical Guide*. Cambridge: Cambridge University Press, 155-73. <https://doi.org/10.1017/9781108641517.009>.
- Lefebvre, R. (1988). "La φαντασία chez Aristote: Subliminalite, indistinction et pathologie de la perception". *Les Etudes Philosophiques*, 2, 195-206.
- Lefebvre, R. (1992). "Aristote, l'imagination et le phenomene: L'interpretation de Martha Craven Nussbaum". *Phronesis*, 37, 22-45. <https://doi.org/10.1163/156852892321052641>.
- LSJ – Liddell, H.G.; Scott, R.; Jones, H.S. (eds) (1996). *A Greek-English Lexicon*. Oxford: Clarendon Press.
- Mingucci, G. (2025). "Ghosts in the Machine? Il dibattito esegetico sulla concezione aristotelica dei φαντάσματα". *Elenchos*, 46(1), 97-115. <https://doi.org/10.1515/elen-2025-0005>.
- Nussbaum, M.C. (1978). "Essay 5: The Role of *Phantasia* in Aristotle's Explanation of Action". Ead. (ed.), *Aristotle's De Motu Animalium*. Princeton: Princeton University Press, 221-69. <https://doi.org/10.2307/j.ctv15r57hz.15>.
- Radovic, F. (2021). "*Eidōla* and *Phantasmata* in Aristotle: Two Senses of 'Image' in Aristotelian Psychology". Gregorić, P.; Fink, J.L. (eds), *Encounters with Aristotelian Philosophy of Mind*. New York: Routledge, 141-68. <https://doi.org/10.4324/9781003008484-10>.
- Schofield, M. (1978). "Aristotle on the Imagination". Lloyd, G.E.R.; Owen, G.E.L. (eds), *Aristotle on Mind and the Senses*. Cambridge: Cambridge University Press, 99-129.
- Wedin, M.V. (1988). *Mind and Imagination in Aristotle*. New Haven: Yale University. <https://doi.org/10.2307/j.ctt211qw8h>.
- Winzenrieth, J. (2025). "About the Meaning of Φάντασμα in Aristotle". *Apeiron*, 58(2), 235-69. <https://doi.org/10.1515/apeiron-2024-0038>.
- Zucca, D. (2015). *L'anima del vivente: Vita, cognizione e azione nella psicologia aristotelica*. Brescia: Morcelliana.