

ARISTOTE
TRADUCTIONS ET ÉTUDES

**LE LANGAGE
LECTURES D'ARISTOTE**

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ΦΑΝΤΑΣΙΑ AND ΝΟΥΣ:
ON THE RELATION BETWEEN ΦΑΝΤΑΣΜΑΤΑ AND
ΝΟΗΜΑΤΑ IN ARISTOTLE'S PSYCHOLOGY

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1. The question

Analytica posteriora II 19 treats the problem of how the intellect can perform its main task: the apprehension of the ἀρχαί of science; this chapter deals with the main ἔργον of the human intellect and with the genesis of the habit of intellect, i.e. the genesis of the intellectual (scientific) knowledge of the world. In *De anima* III 4-6, on the other hand, Aristotle faces the problem of what *is* intellect and the strictly related problem of which its conditions of existence – its matter and its efficient cause – could be. Unluckily, Aristotle does not treat in a similar way, in one or more chapters of his works, the problem of how the cooperation between intellect and other parts of the soul works: this means that we do not have any explanation of the normal, everyday activities of human reason and mind, which are characterized by an overall cooperation between the intellect (already *in habitu*) and the other cognitive powers as sense-perception, memory, imagination etc. But the many fragmentary statements we can extract from various texts seem to suggest that Aristotle actually had such a theory.¹ What we can do, is just to collect these few hints, and try to draw a sketch of how his overall theory could look like. I will try to perform this task by addressing the problem of the relation between the νόημα, the cognitive state in which the activity of intellect is realized, and the cognitive states in which are realized the activities of

¹ The scantiness of Aristotle's surviving bits of doctrines about intellect has sometimes pushed some scholars toward minimalist interpretations: e.g. Kahn thinks that Aristotle leaves the question about intellect's nature open (Kahn 1992, 361).

sense-perception and φαντασία, the αἴσθημα and the φάντασμα. I think that in this way we will be able to reach some hints also about the psychological « mechanism » that Aristotle seems to presuppose as an explanation of the intellect's power to generate a λόγος.²

2. The dependence of thought on φαντασία as its material condition: an hylomorphic theory about thought?

The dependence of the exercise of thought on the presence of a φάντασμα as its condition is clearly stated by Aristotle in a famous sentence in the *De memoria et reminiscencia*: « νοεῖν οὐκ ἔστιν ἄνευ φαντάσματος [it is impossible to think without a φάντασμα] » (*De memoria* 1, 449b 31).³

This fact implies that the νόημα, the cognitive state in which the act of thinking is realized,⁴ is embodied through its link to one or more φαντάσματα. The φάντασμα is a sensory or perceptual state⁵ which either (1) is the relic of a past exercise of sense-perception⁶ or (2) is the result of the mix of various relics of past exercises of sense-perception. We know that Aristotle thought that φαντάσματα can mix and form a new, more complex, φάντασμα: e.g. this is the way in which, according to Aristotle, dreams are produced;⁷ this is also the condition that allows people who « manipulate » their mental landscapes in order to produce mnemonic « places ».⁸ In all these cases, the mixing of φαντάσματα

² I treated the problem of the genesis of the intellect *in habitu* in Feola 2009 and the problem of what the intellect is in Feola 2016. I approach here the third side of the problem: the problem of how the intellect works.

³ Unless otherwise stated, all quotations from *Parva naturalia* refer to W.D. Ross 1955's edition and translations are my own.

⁴ The term νόημα is not very common in the *corpus*, but is pervasively used in *De anima* III 6, where Aristotle treats the problem of how intellect performs the task of the synthesis between two or more νοήματα. For a discussion of its meaning, see Feola 2016.

⁵ For more details about how the concept of « perceptual stimulus / sensory motion » should be construed in Aristotle's psychology, see Feola 2015. For an alternative construal, see Wedin 1988.

⁶ Cf. *De anima* III 3, 429a 1-2: φαντασία is the persistence, in the sentient body, of the results of the acts of sense-perception. In the *De insomniis (passim)* we are told that the results of the acts of sense-perceptions are the φαντάσματα.

⁷ Cf. *De insomniis* 3, 460b 28 - 461a 11 and 461b 17-22.

⁸ This is what emerges from treatises on mnemotechnics such as Cicero's *De oratore* II, 350-360, the anonymous *Rhetorica ad Herennium* III and Quintilianus' *Institutio oratoria* XI: while reading the second chapter of *De memoria et reminiscencia*, we have to be aware that the cultural background of Aristotle's text were these kinds of practices.

produces a new φάντασμα and, according to the doctrine of the four causes, it would be obvious to describe the relation between the original φαντάσματα and the new one as a matter-form σύνολον relationship. It is possible that also the relationship between the φάντασμα or the φαντάσματα and the νόημα should be, in principle, described as a matter-form σύνολον relationship: as we have seen, indeed, Aristotle usually describes the relation of thought to φαντάσματα with the wording « οὐκ ἄνευ » which hints to a relationship of hypothetical necessity, whose most prominent species is, after all, the matter-form σύνολον relation. If it is so, a question arises: in which way does the relation between a complex φάντασμα, which results from the junction of many φαντάσματα, and its simpler original components differ from the relation between a νόημα and the φαντάσματα? How can it be that the union of a number of φαντάσματα produces just a more complex φάντασμα in some cases, while in some other cases it gives birth to a νόημα? In which way do these two instances of union differ?

I will here try to show that the postulation of an hylomorphic relation between νόημα and φαντάσματα can produce a construal of Aristotle's theory about this point that is both philosophically interesting and explanatory.

3. *In confinio sensus et intellectus*

I think we can begin to investigate the relation between φαντάσματα and νοήματα from a passage in the *De anima*:⁹

« φαντασία γὰρ ἕτερον καὶ αἰσθήσεως καὶ διανοίας, αὐτὴ τε οὐ γίγνεται ἄνευ αἰσθήσεως, καὶ ἄνευ ταύτης οὐκ ἔστιν ὑπόληψις [φαντασία, in fact, is something different both from sense-perception and from intelligence: it does not come to be on its own without sense-perception, and without it there can be no belief] » (*De anima* III 3, 427b 14-16).

De anima III 3, which is usually described as a chapter about « imagination », could perhaps be more properly described as a chapter about the differences between the various cognitive powers of the soul. The main part of the chapter is a detailed dialectic discussion about how each particular cognitive power differs from other powers.¹⁰ The result of this

⁹ Unless otherwise stated, all quotations from *De anima* refer to Ross' 1956 edition.

¹⁰ I resume here points exposed in more detail in Feola 2012.

discussion is that, in the map of the various powers, there is a blank place, that must be filled by the so called φαντασία. The second half of the chapter (427b 27 - 429a 9) is a short treatise on the definition of φαντασία, while the first half (427a 17 - 427b 26) tells us that the map of the cognitive powers is defective because it lacks an appropriate description of what is midway between sense-perception and intelligence. It is important to notice that III 3 does not give us a detailed discussion about how the entrance in the theoretical landscape of φαντασία (which is defined only at the end of the chapter, in 429a 1-2) should solve the many problems raised in the previous parts of the chapter. After that Aristotle has told us that the map of the cognitive powers is defective, he adds φαντασία to the picture; but he does not tell us how exactly the presence of φαντασία should make the picture less defective.

I think that the entrance of φαντασία in the theoretical framework actually solves the problem Aristotle has here raised, because those problems were generated by a lack of clearness about the genetical relationships between the various levels of the cognitive soul, and the entrance of φαντασία in this landscape adds exactly what Aristotle needed: a genetical point of view on the connections among the powers. It is here that we find the key-words « οὐκ ἄνευ » (427b 14-16): even if it is not immediately clear which is the specific kind of hypothetical necessity here at stake, what seems clear is that sense-perception is the necessary condition of φαντασία, and φαντασία is the necessary condition of belief (i.e. propositional thought). Anyway, what concerns us here, is the fact that this passage clearly treats φαντασία as something which is in a (still) indefinite place midway between sense-perception and thought, something which is strictly necessary in order that the mediation between sense-perception and thought can be performed.

Anyway, we do not know anything yet about how exactly Aristotle construed the relation between φαντάσματα and νοήματα. Let us have a look to another passage.

4. An hylomorphic relation between φαντάσματα and νόημα?

Here is what we can find in the *De interpretatione*:

« ὅν [...] ταῦτα <int. γράμματα, φωναί> σημεῖα πρώτων, ταῦτα πᾶσι παθήματα τῆς ψυχῆς, καὶ ὧν ταῦτα ὁμοιώματα πράγματα ἤδη ταῦτά [the “first” things, of which these other things <int. the letters and vocal sounds

at 16a 5> are signs, are, for all of us, the same affections of the soul; and the items of which these <affections> are resemblances are the things themselves, of course identical] » (*De interpretatione* 1, 16a 6-8).

How can Aristotle feel to be entitled to say that the soul's affections are the same « for all of us »? It seems obvious that my thoughts are mine, your thoughts are yours! Under which description can they be described as « the same » for all of us? Aristotle is here speaking about communication; what matters, for two people to effectively communicate something to each other, is that the intentional objects meant by the two are the same. I think that the straightest construal of this passage is that (according to the famous principle that each cognitive act is defined by its object) the thoughts of two or more people can be the same thoughts, if they share the same content and they are about the same intentional objects.¹¹

¹¹ I think that Aristotle's theory about sensory mistake, in *De anima* III 3 and in the *De insomniis* assumes intentional objects as its part. This is not the appropriate place for a discussion about this important and controversial bit of doctrine. For an introductory and interesting discussion of the treatment of the topic of intentional objects in the philosophy of mind and of language of XXth century, cf. Gozzano 1997. For the aims of this paper, I will here mean by « the intentional object (of a cognitive act, either sensorial or rational or intellectual) » the item (either concrete object or occurrence of fact) whose real existence in the world (either as a universal or as a particular item, in whichever of the categories and the ways of existence admitted by Aristotle's ontology), under the conditions in which it is represented by that cognitive act, would render true that cognitive act itself. E.g. if I am sleeping, my eyes are closed, and I dream about seeing my cat in my room, my dream is an instance of a false cognitive act even if my cat is really in my room, since my dream presents to me my *cat as seen*, while I am not seeing him; in this case, the circumstance of seeing my cat, with all the features that are presented in my dream (including the fact of seeing him from a definite angle, in definite environmental conditions etc.), is the intentional object of my dream: i.e. it is the circumstance that, if it would be really occurring in the objective world, it would make my sensory-experience a true sensory-experience (instead of being just a dream). I think that in Aristotle we can find a lot of instances of an active and conscious usage of this concept, in every context in which he discusses the problem of the falseness of cognitive acts. In this kind of contexts, Aristotle mentions (1) logically impossible objects (i.e. intentional objects that cannot have any match in the real world because they would correspond to contradictory items), e.g. the object of the false belief that the diagonal of the square is commensurable to the side; (2) materially impossible objects (i.e. intentional objects that cannot have any match in the real world because the physical nature of the world renders them impossible), e.g. the object of the false sense-perception that the sun is a foot-wide (cf. *De anima* III 3, 428a 24 - 428b 9); (3) contingently inexistent objects (i.e. intentional object that have no match in the real world but that could have plenty of instances in the *De insomniis*); (4) true objects, in which cases the intentional object of the cognitive act matches the reality in the world. If we want to find, in Aristotle's *corpus*, the bit of doctrine which most openly

So, the question arises: how can two people think of just one (and the same) intentional object? I think that the hypothesis that the relation between the φαντάσματα and the νόημα is a matter-form relation can solve this problem, if we bear in mind the famous principle according to which the same form can be realized in different matters if these matters share the properties that are relevant for the realization of that form: we can posit the hypothesis that (1) a νόημα is defined by its intentional object, that (2) two people that think of one and the same intentional object have the same νόημα, and that (3) this one form, the νόημα which is the same for the two people, can be enmattered in sets of φαντάσματα which are peculiar to each of the two people.¹²

But there is more: the hypothesis that the relation between νόημα and φάντασμα could be a form-matter relation can make clearer some passages that are otherwise quite difficult. Consider e.g. *De anima*, III 7, 431b 2: « τὰ μὲν οὖν εἶδη τὸ νοητικὸν ἐν τοῖς φαντάσμασι νοεῖ [the power of thinking thinks the forms in the φαντάσματα] ». It seems quite difficult to understand this passage in a way which is relevantly different from the idea that the act of thinking the forms finds its concrete instances in the matter provided by the φαντάσματα.¹³

addresses the topic of intentional objects, I think we should look at *Metaphysica* Δ 29, 1024b 17 ff., where he considers the meanings of « false » (ψεῦδος), and where he treats falseness only in a derivative way as a property of propositions or of cognitive acts, and in first instance as a property of facts: here he says that something false is a composition of things that are not united in the reality or whose unity is impossible; these two categories match the categories 1-2 and 3 I distinguished earlier. *Metaphysica* Δ 29 seems to me a clear witness of the fact that Aristotle admitted in his theory intentional objects. Among the many contemporary theories that Gozzano 1997 describes, the theory which seems to me to be most similar to the theory I am ascribing to Aristotle, is Searle's (cf. 118 ff.), according to whom intentional states can be « satisfied » or not by states in the world that make them true or false. I think that the very words which Searle uses in describing the concept of « condition of satisfaction » would fit for Aristotle's conceptual framework too: « intentionality is that feature of certain mental states and events that consists in their (in a special sense of these words) being directed at, being about, being of, or representing certain other entities and states of affairs. If, for example, Robert has the belief that Ronald Reagan is President, then his belief is an intentional state because in the appropriate sense his belief is directed at, or about, or of, or represents Ronald Reagan and the state of affairs that Ronald Reagan is President. In such a case Ronald Reagan is the intentional object of Robert's belief, and the existence of the state of affairs that Ronald Reagan is President is the condition of satisfaction of his belief » (Searle 1984, 3).

¹² I think that Wedin is right in saying that the φάντασμα « is the mean by which the thought is [re]presented to the subject » (Wedin 1988, 116).

¹³ An obvious corollary of this doctrine is the consequence that the activities of human intellect cannot be separated from the body, as properly recognized by Kal 1988, 73.

And, following this line of enquiry, we have also reached a relevant new point: what Aristotle calls νόημα is not the σύνολον, it is the form;¹⁴ the σύνολον is the particular instance of the νόημα, i.e. a single state of the thinking power, a particular embodiment of the act (which is performed in that moment of time by some particular person) of thinking about something, and whose matter are some particular φαντάσματα that are peculiar to that person.¹⁵

I think that Aristotle could have held something like the following: perhaps, when we think of the universal *horse*, you imagine a white horse, while I imagine a black one; but, as far as these two φαντάσματα share, in your and my acts of cognition, the same role of enmattering the νόημα that corresponds to the concept *horse*, they are perfectly equivalent.¹⁶ Their difference turns out to be important, if we cease to treat them as matter of our νόημα, and we go back to their roles in our exercises of φαντασία: from this second point of view, they present to us two different

¹⁴ As Wedin 1988, 141 correctly noticed, *Metaphysica* A 9, 990b 24, describes the νόημα as an intersubjective item. If the νόημα were a concrete item (a σύνολον), it should be a concrete instance of a psychological state and it would necessarily be either mine or yours: it would not surely be intersubjective.

¹⁵ Modrak 1989, 124 is ready to admit that thought uses φαντασία as its matter, while, at the same time, construing the relation between φάντασμα and νόημα (not as a matter-form relation, but) as an identity-in-number-and-diversity-in-essence relation. The φάντασμα of a horse would be, at the same time, the νόημα of a horse when *thought* by a thinking subject as the φάντασμα of a horse (Modrak 1989, 127); in this construal, it is not clear what exactly distinguishes the φάντασμα φ from the intellectual cognitive state by which I would refer φ to the thing it is a φάντασμα of: which is the material condition in which this difference in cognitive attitude should be embodied? I think that, in order to switch from the phantastic attitude to the intellectual one, we need that from the many φαντάσματα a common and more abstract form emerge: the νόημα.

¹⁶ Wedin 1988, 140-141 ascribes to Aristotle the theory that the φάντασμα can exemplify the universal form (e.g. of a triangle) since what is relevant in the φάντασμα for it to be what it is (a φάντασμα of a triangle) are the properties of the φάντασμα that follow from the definition of the represented thing: e.g., from the definition of triangle; if Wedin is right, the content of the νόημα would be already existent in the φάντασμα, and it should only need to be « extracted » from it. But it is quite difficult to believe that the property of the triangle of *resulting out of three (perfectly) straight lines* can be the property of any object in the material world, and therefore be an object of sense-perception and φαντασία (which works on materials that are provided by sense-perception). Wedin 1988, 206-207 gives also another (and, in my opinion, better) account of the relation between φάντασμα and νόημα: to have an acquaintance with the universal would mean to be able to distinguish concrete instances of it from items that are not instances of it; I would like to strengthen this construal by saying that treating a φάντασμα as an example of a universal term would mean to be able to know in which conditions I can substitute the φάντασμα with another one, *salva veritate*, and in which conditions I cannot.

intentional objects (phantastic objects, not conceptual ones), a white and a black horse, and they have therefore different cognitive values.

So, it seems that we have somehow answered our main question: the νόημα is the form of the cognitive state that represents a universal concept; it is realized in a matter that are the φαντάσματα;¹⁷ and, being a form, and not a σύνολον, it has not to be confused with the φαντάσματα that are the matter of the intellectual activity. The φαντάσματα that compose a νόημα can be substituted while the νόημα remains the same (two people that think the same thing will have the same νόημα, while having different φαντάσματα); and, as soon as they represent sensory features that can pertain to entities belonging to the same universal concept, their mutual substitution will not affect the νόημα's identity, which relies only on the fact of referring to that universal concept.

In this construal, what matters for distinguishing the φαντάσματα from the νόημα is only the substitutability of the φαντάσματα in the instantiation of the same νόημα.¹⁸

5. Φαντασία and νοῦς acting together: φαντασία λογιστική

Let us, now, see a very famous passage about how φαντασία works for the sake of the activities of the intellect (or, if we prefer, how intellect works on the materials that φαντασία provides):

« συμβαίνει γὰρ τὸ αὐτὸ πάθος ἐν τῷ νοεῖν ὅπερ καὶ ἐν τῷ διαγράφειν ἐκεῖ τε γὰρ οὐθὲν προσχρώμενοι τῷ τὸ ποσὸν ὀρισμένον εἶναι τοῦ τριγώνου, ὅμως γράφομεν ὀρισμένον κατὰ τὸ ποσὸν, καὶ ὁ νοῶν ὡσαύτως, κἂν μὴ ποσὸν νοῆ, τίθεται πρὸς ὀμμάτων ποσόν, νοεῖ δ' οὐκ ἢ ποσόν [it happens the same thing in thinking and in drawing geometric sketches: also in this second case, even if we do not do any use of the fact that the triangle is of a definite size, we anyway draw it of a definite size; the person who

¹⁷ Among the scholars that have stressed the characterization of the φαντάσματα as matter of the νόημα, there are Kahn 1992, 367 and Kal 1988, 76 and 155 note 39: both Kahn and Kal stress the fact that, in such an account, what thinks (the subject of the act of thinking) is the whole human being, which can perform the act of thinking due to the presence of appropriate levels of matter, the most proximate of which are the φαντάσματα. That the subject of the act of thinking is the concrete human being (and not the intellect *in se*) is anyway openly stated by Aristotle in *De anima* I 4, 408b 25-27.

¹⁸ I think that only in this hypothesis we are able to improve the vague characterization of Aristotle's theory, we sometimes find in the bibliography (cf. e.g. Modrak 1989, 159), according to which the φάντασμα would present an arbitrary sample of the νοητόν: if we have to recognize the sample as an arbitrary sample, we have to realize that it is substitutable.

thinks is doing something similar: even if he does not think about something which has a size, sets in front of his mind's eye something which has a size, but he thinks to it as something without a size] » (*De memoria* 1, 450a 1-5).

One main feature of intellectual activity is the fact that the power of abstraction frees it from the bounds of the sense data. Two different triangles, being different in magnitude, can cover two different portions of my visual horizon; therefore, their two φαντάσματα will be recalled in imagined landscapes in which they will (again) occupy different portions; but what is important is that my intellect can treat the features that are represented by the φαντάσματα as specimens of (or approximations to) properties that are relevant for that specific instance of thought: if I have to think about a geometric theorem which is about every triangle, the dimension of that particular triangle will be pointless, and I can discard it. What does it mean that I can discard it? It means that I will not use it in my line of reasoning: in my act of reasoning, which follows the line of reasoning I have actually chosen, I will use only the features of the φάντασμα that refer to the features of its intentional object that are relevant for the theorem, i.e. the features of the φάντασμα that are relevant for that specific intentional object which is the sum of the angles. The ability to perform this kind of act entails that I should be able to use different φαντάσματα of different triangles, given that these triangles all have the same sum of angles; that I can change the *ratio* among the lengths of the sides; that I can « manipulate » the φάντασμα in various ways.

How can this be possible? I think that the only way in which Aristotle could provide a viable answer to this problem, would be by allowing that our storage of φαντάσματα can be so dense and full that it can stand as an effective substitute of external reality, and so flexible and open to recombination that it can provide fulfilment to almost every need of the intellect.¹⁹ True enough, Aristotle never and nowhere tells something similar. But his mention of the existence of a « φαντασία which is ruled

¹⁹ One of the referees that read and commented upon my paper objected that we have no need to suppose that in Aristotle's theory the representation of reality in our minds should be so rich that it can stand as an effective substitute of external reality. But I think we have such a need: it seems that the principles of science, according to Aristotle, should be effective conceptual representations of the principles of reality: if they were not, the deductive science that would result from them would be flawed and its grasp on reality could not be granted. In other words, Aristotle's epistemology requires that our apprehension of the principles of reality could be (at least in ideal conditions) effective and complete; and psychology should provide an account of how this is possible. See e.g. how

by λόγος » (*De anima* III 10, 433b 29: « φαντασία ... λογιστική ») seems to point in this direction: the possibility of combining signs in the infinite number of ways which is allowed by the possibility of combining words and, with the words, the φαντάσματα which always accompany them, seems to be exactly what Aristotle here needs.

To summarize: the association of φαντάσματα to words, and the indefinite possibilities of combinations of words, and therefore of φαντάσματα, can provide our imagination²⁰ with an indefinite number of specimens of each species and genre; and the availability of such an indefinite number of specimens provides, in turn, the possibility of changing at will the features of the specimen(s) I am imagining when I think about a species or genre, therefore noticing that there are some properties of the specimens that do not depend on the particular features of this or that specimen: universal properties.²¹ For this sake, it is not necessary to

emphatically he tries to demonstrate that our five sense can grant a complete access to physical reality in *De anima* III 1, 425a 11-13.

²⁰ By « imagination » I mean the so-called « creative imagination », which has to be distinguished from sheer φαντασία, to which many scholars, due to a tradition which traces back to the Middle Ages, continue to refer by the word « imagination ». From this moment I will use the word « imagination » only for creative imagination, given that this is the meaning that the word « imagination » has in nowadays everyday language.

²¹ One of the referees pointed out that it is not so sure that, when Aristotle mentions φαντασία λογιστική, he is actually referring to a linguistically driven imagination, since the meaning of λόγος here at stake could be that of « reason » and not that of « language »; in this case, the φαντασία λογιστική should be thought as the imagination which is subservient to rational faculty (e.g. in action deliberation) and not an imagination which is symbiotic with language. My answer is that the fact that λόγος in IV century BC Greek means both « discourse / speech » (cf. the job of the so-called λογογράφοι, people who were paid for writing forensic and/or political speeches: a professional category whose impact in everyday life in Athens in that age was enormous; the job is mentioned by Aristotle in *Rhetorica* II 11, 1388b 22 and by Plato in *Phaedrus* 257e, 258b) and « reason » is not a case of sheer homonymy: I think that in IV century BC Greek culture the concepts of « discourse / speech » and that of « reason » were so intertwined that the main properties of « discourse » were also thought to be main properties of « reason », and vice versa. Things being so, it is implausible that Aristotle could have construed an account of reason which was not rooted in his account of discourse (and vice versa). If this holds true, imagination which is subservient to rational power and imagination which is symbiotic with language are (for him) the same thing. I do not mean that Aristotelian φαντασία λογιστική should be reduced to the ability to recall the words' meaning at will and to combine them in any way we like; but I think it can be considered as the ability to combine φαντάσματα in order to create specimens that match the scenarios that λόγος (reason / language) construes, i.e. to build sequences or arrays of φαντάσματα that constitute the proximate matter for the complex νοήματα that we build when we exercise the faculty of reason.

examine all the possible specimens: this would be impossible; by noticing *what* depends on the features that my imagination puts in the object (sheer accidents: in the example of triangles, their dimensions) and *what* does *not* depend on them (essential properties: in the case of triangle, the fact that its angles sum to 180° , which is a good example because it is something which can be verified by a very simple geometric drawing or even by a mental visualization), I am *ipso facto* noticing what is essential to the triangle and what is not.²²

6. Imaginary objects: a problem and a proposal of solution. Productive imagination.

The hypothesis of construal I have set forth about Aristotle's theory on the relation between intellect, reason, language and φαντασία, seems to credit Aristotle with a strictly empiricist theory of knowledge. So, what about imagined objects? What about objects which are not real, or which are impossible? And what about objects which, as the intentional objects of scientific theories or of our everyday guesses about reality, may just as well turn out not to be real? After all, Aristotle, in his dialectic discussions, uses thoroughly the procedure of *reductio ad absurdum*, which is a procedure asking for a philosopher or scientist to imagine and examine in a rigorous way something which, at the end of the reasoning, will be proved false and not existent.

Let us check another passage, which I quote according to Hicks' edition rather than Ross' who makes some unnecessary alterations; I also adopt the former's translation (save for the substitution of « believing » to « opining »):

« ὅτι δ' οὐκ ἔστιν ἡ αὐτὴ νόησις καὶ ὑπόληψις φανερόν. τοῦτο μὲν γὰρ τὸ πάθος ἐφ' ἡμῖν ἐστίν, ὅταν βουλόμεθα (πρὸ δμμάτων γὰρ ἔστι τι ποιήσασθαι, ὥσπερ οἱ ἐν τοῖς μνημονικοῖς τιθέμενοι καὶ εἰδωλοποιούντες), δοξάζειν δ' οὐκ ἐφ' ἡμῖν· ἀνάγκη γὰρ ἢ ψεύδεσθαι ἢ ἀληθεύειν

²² Otherwise said: in order that we can notice what is essential to the triangle, there is no need that our fantastic abilities *actually* construe a huge array of variation thus noticing what is essential and what is not to the triangle; in my construal of Aristotle's theory, what is required is just that the thinker notices that he/she can choose and change some features, while he/she cannot choose to add or eliminate some other features without changing the nature of the thing his/her imagination is representing (if I change the drawing – either material drawing or an image « in my mind's eye » – and increase the sum of the internal angles, I have no triangle any more).

[clearly, thinking is not the same thing as believing. For the former is in our own power, whenever we please: for we can represent an object before our eyes, as do those who range objects under mnemonic headings and picture them to themselves. But believing is not in our power, for the belief that we hold must be either false or true] » (*De anima* III 3, 427b 16-21).

Here Aristotle seems to distinguish between two ways of using the power of thought: in the second one, thought is bound to state something about reality, and has to be necessarily either true or false; in the first one, the use of thought is not bound to the necessity of stating something about reality, and therefore it is not necessarily true or false: a suspension of belief occurs, which seems to be the same kind of suspension of belief that we perform when we construe a mathematical hypothesis we want to examine and which we have not yet accepted or rejected. Another way to describe this opposition would be by distinguishing the *thought* as a *process* which moves from some condition to its consequences, from the *belief* as the *result* of this process, the belief as the ultimate consequence of our line of reasoning. What Aristotle here says, is that we are not free to choose our own beliefs: if we are truly investigating some subject, the belief which is the ultimate result of our reasoning will result as such to us on account of the real or presumed strength of its reasons, and it will impose itself to us as true (or, at least, as more probable than the opposite belief). Aristotle tells also another thing, here: that there is another usage of thought, which allows us more freedom. When we explore a new scientific hypothesis, we do not know yet if this hypothesis will turn out to be true or not; we are just curious about it, and we draw in a rigorous way its consequences.

It is important to notice that this usage of thought is not restricted to the performance of acts of theoretical thinking. In the immediate aftermath of the passage we just quoted, Aristotle provides an example for his distinction between thought-as-process and belief, taking his example from the field of practical behaviour :

« ὅταν μὲν δοξάζωμεν δεινόν τι ἢ φοβερόν, εὐθὺς συμπάσχομεν, ὁμοίως δὲ καὶ θαρραλέον· κατὰ δὲ τὴν φαντασίαν ὡσαύτως ἔχομεν ὡσπερ ἂν εἰ θεώμενοι ἐν γραφῇ τὰ δεινὰ ἢ θαρραλέα [when we are of opinion that something is terrible or alarming, we at once feel the corresponding emotion, and so, too, with what is reassuring. But in the act of φαντασία we are no more affected than if we saw in a picture the objects which inspire terror or confidence] » (*De anima* III 3, 427b 21-24).

We can picture situations in which we are faced with horrible sufferings or with sublime happiness, without being so stupid to believe in the truth

of our imaginations. This fact, which is open to the experience of all of us, is used by Aristotle as an evidence for the existence of a « realm », the realm of imagination, whose main feature is that of not being bound to the necessity of presenting things or facts as *tout court* existent or not existent, real or not real: if only φαντασία were at work, the construction of these imaginary landscapes would be simply an instance of falseness; but at work, here, is also reason, which rules over φαντασία in the construction of such landscapes, and which can, therefore, testify to itself that such landscapes are not real: so, while the φαντασία that presents the landscape is actually false, its falseness turns out to be neutralized, because the overall cognitive act, which encompasses both my φαντασία and my awareness of the fact that the φαντασία was produced by me, results in a state of suspension of belief.

This complex interplay between reason and φαντασία is something far more elaborate than the simple φαντασία as decaying sense which will be defined at the end of the chapter (429a 1-2); nor it is the random generation of new φαντάσματα out of pre-existing ones (by mixing them) that occurs in dreams (cf. *De insomniis* 2-3, *passim*) and which, according to Aristotle, is independent from the power of λόγος;²³ it is clear enough that we are here speaking of another kind of φαντασία, which can be treated as an instance of thought since it is something that cannot be reduced to a sheer result of sensory activities, because it is the product of manipulation of φαντάσματα by reason. Our passage shows also that Aristotle is prepared to enlarge the region of thought very far from the land of pure intellect, and to encompass in it a lot of cognitive activities which are more complex than simple sense-perception but could hardly enter in a notion of thought as « faculty which deals with universals ». Which are these activities, exactly? Given that the opposition « particular / universal objects » cannot work here, we should ask if there is another criterion which Aristotle uses, in deciding which acts should be treated as instances of such an enlarged concept of « thought ».

It seems that this criterion is the fact of being or not being up to us, « in our power » (427b 17-21). But what does it mean to be « in our power »?

« τῶν καθ' ἑκαστον ἢ κατ' ἐνέργειαν αἴσθησις, ἢ δ' ἐπιστήμη τῶν καθόλου· ταῦτα δ' ἐν αὐτῇ πῶς ἐστι τῆ ψυχῆ. διὸ νοῆσαι μὲν ἐπ' αὐτῶ, ὁπόταν βούληται, αἰσθάνεσθαι δ' οὐκ ἐπ' αὐτῶ· ἀναγκαῖον γὰρ ὑπάρχειν

²³ According to Aristotle, dreams are a by-product of sense-perception, and pertain to the perceptual part of the soul: cf. *De insomniis* 1, 459a 21-22.

τὸ αἰσθητόν [Hicks 1907: actual sensation is always of particulars, while knowledge is of universals: and these universals are, in a manner, in the soul itself. Hence it is in our power to think whenever we please, but sensation is not in our power: for the presence of the sensible object is necessary] ». (*De anima* II 5, 417b 22-26).

Here Aristotle clearly states that what makes the thought of universals « up to us » is the fact that they, *in a manner*, are in the soul: I think that the straightest construal of Aristotle's thought, here, is that the particulars, as such, have to be out there in order to be perceived (if they are not out there, what we have is φαντασία, not sense-perception), while the universals we have already grasped can be recalled whenever we want just by telling their names (« dog », « man », « triangle », etc.), because our φαντασία obeys to our usage of language, and a set of φαντάσματα which embodies the appropriate νόημα is promptly recalled when I tell the name of the thing. What is common both to the concept of « thinking » (νοῆσαι) of II 5 and to the concept of « thought » (νόησις) of III 3, notwithstanding the difference in scope between them (in II 5 the scope of the thought seems to be limited to theoretical thought, while in III 3 the scope has been much enlarged), is their common reference to objects which are « in the soul ».

The « objects-in-the-soul » are purely intentional objects, or (if we have to be more precise) objects which are considered just as intentional objects, bracketing their existence or inexistence in the world.

If we want to resume, we could say that the need to distinguish between sense-perception and intelligence brings Aristotle to discover, in *De anima* III 3, a border land between the two spheres; the main feature of this border land is the fact of laying midway between the territories of sense-perception and intellect. Aristotle construes the matter-form relation, which holds between φαντάσματα and νοήματα, in a way that allows the power of reference with which the νοεῖν is endowed to be freed as much as possible from that of the φαντασία. Indeed, between φαντασία and νοῦς there is the space of imagination: what allows the νοῦς the power to perform cognitive operations which are not strictly bound to the sense-data is the power of the soul of imagining intentional objects that lack any correspondence to reality, and such a power is implemented by the power of combining words in sentences that need not to mirror factual external realities as are presented to us by sense-perception, and that by far surpasses the range of imaginary objects we

can conjure up in an exercise of non-linguistic imagination. Without this power it would be hard to conjure up abstract complex concepts as that of a « difference between a polygon with 15672 sides and a polygon with 15673 sides » (a difference between two geometric shapes that are perfectly conceivable, and that I could need to conceive while performing an exercise of geometrical thinking in which it is important to distinguish between a 15673 sided shape and a 15672 sided shape, but whose thought would hardly be accompanied by any image of two shapes with exactly that numbers of sides) or the belief that « the sun is far larger than the earth » – a belief whose content finds no match in sense-perception nor in sensory φαντασία: cf. *De anima* III 3, 428b 22 ff. As a matter of fact, in the same chapter – at 428a 14 – Aristotle says explicitly that predicative thought (διάνοια) hangs on λόγος; and since it would be a truism to say that predicative thought hangs on predicative thought, the only affordable meaning for λόγος, here, is « language » (or, as I would prefer, the aspect of language which is responsible for the production of predication).

Other, more detailed, arguments for this case can be added.

Let us start with the (Aristotelean) assumption that every νόημα requires a φάντασμα or a group thereof (cf. *De memoria* 1, 449b 31, as quoted above). The relation between the occurrence of a νόημα and the occurrence of the relevant φαντάσματα can be conceived, in principle, either as accidental or as essential; the principles of hylomorphism applied to living beings require such a matter-form relation to be essential. I do not mean that each νόημα essentially (necessarily) requires a specific group of φαντάσματα; but I do mean that each occurrence of a νόημα essentially (necessarily) requires that relevant φαντάσματα (whichever they are) are occurring.

Now, let us ask ourselves which could be the relevant φάντασμα for the νόημα of a regular polygon with a number of sides which escapes our power of visualization, say 15672. I do not think that we are forced to attribute to Aristotle the very strange belief that, in order to demonstrate the properties of this polygon (which, for Euclidean geometry, is not a more difficult case than that of a polygon with 5 sides), we need to visualize it, by conjuring up in our minds a φάντασμα of a polygon with 15672 equal sides: this would be possible only for rare people with extraordinarily gifted powers of visualization; if the case of the number of sides does not suffice, let us think of the property of a regular polygon

of having all sides of *exactly* the same length (a property which pertains also to the very simple case of a square): something which seems very difficult to simulate in a mental picture; if neither examples suffice, let us think then of a geometrical problem which deals with the discovery of the different properties of the 15672 sided regular polygon and a 15673 sided regular polygon; as a matter of fact, there is no need of visualizing (or even concretely drawing) two polygons such as these. E.g. in order to calculate the sums of their internal angle, and to discover the difference between these sums, if we know the general rule according to which the sum of the internal angles of a convex polygon with n angles is equal to the sum of n flat angles minus 360° , it suffices to do the appropriate multiplications and subtractions. In other words, the relevant *φαντάσματα*, here, would not be the mental pictures of two polygons with the relevant numbers of sides: rather, they would be the *φαντάσματα* in which the verbal and numerical reasoning we are producing is instantiated; they would be the *φαντάσματα* that accompany the meaning of the ciphers and words we are using.²⁴

The power of voluntarily imagining possible or fictitious objects and scenarios should pertain, to be sincere, according to Aristotle, also to *some instances* of the kind of *φαντασία* which is not ruled by language: otherwise, Aristotle could not think that some non-human, non-linguistic animals, actually have the power of picturing and imagining behaviours which can lead to the resolutions of problems and puzzles (many examples of this can be found in book VIII of *Historia animalium*, throughout): so, it is clear that Aristotle credits at least some non-linguistic animals with the ability of picturing, visualizing, imagining

²⁴ Another objection we could think about, is that, for many compounds of words, it is not easy to imagine which would be a pertinent combination of images: e.g. which combination of images should be connected to the word « non-human »? My answer is that, since it is surely an Aristotelian doctrine that each νόημα must be instantiated in a pertinent φάντασμα or set of φαντάσματα (*De memoria* 1, 449b 31, already quoted), this rule must hold (according to Aristotle) also for νοήματα that refer to the most abstract concepts as e.g. « not ». Such an assumption does not commit neither us nor Aristotle to be bound to know which the pertinent φάντασμα should be (presumably the pertinent φάντασμα will be different for each person). Now, if the occurrence in our minds of the concept « not », which is the meaning of the word « not », is conceived as essentially bound to the occurrence of a φάντασμα, it is clear that also the occurrence of the concept « not human » will be, whichever could be our difficulty in figuring up which such a φάντασμα could be for our fellows (since each one of us will have her / his own φάντασμα for this need).

possible courses of action. Aristotle can formulate such a hypothesis, because he thinks that these animals are able to perform, by using just their complex φαντασίαι, cognitive acts which are analogous to the acts that human reason can perform (1, 588a 18-31). But it is clear that a linguistic mind has (for the reasons we have specified) such a power in a far greater measure.

This power is the power of *voluntarily* combining the cognitive states in combinations which are different from how they appeared in our previous experiences, and therefore of imagining things and situations which do not exist, or which do not exist yet but which could exist; or even things and situations which cannot exist at all, but whose existence is anyway conceivable, as e.g. that of the deergoat:

« καὶ γὰρ ὁ τραγέλαφος σημαίνει μὲν τι, οὕτω δὲ τὸ ἀληθές ἢ ψεῦδος [and in fact “deergoat” too means something; but it does not mean the true or false yet] » (*De interpretatione* 1, 16a 16-18).

The deergoat is something that does not exist but whose existence can be imagined, due to the fact that Greek language can connect the word for « goat » to the word for « deer ». ²⁵ If I can imagine it, I can construe meaningful hypotheses about its properties, and the subject of these hypotheses must be different from sheer nothing: about sheer nothing no meaningful discourse can be done.

It seems, therefore, that a second criterion for distinguishing the φάντασμα from the νόημα, a criterion which is strictly bound to the first one, is the fact that the νόημα, being the cognitive state that represents a universal, can receive the label of a common term, and can thus enter as a constitutive element in the net of the general linguistic competences of the human being.

²⁵ In principle, it could be objected that there are other cases in which imaginary entities can be construed without that we need any combination of noun. E.g. the word « centaur » does not include in itself any allusion to such items as man or horse (I thank Leone Gazziero for this observation). But it is worth asking if it is possible that a person who has never heard of the meaning of « centaur » can imagine a centaur without asking what a centaur is, without his/her fellow telling her/him that a centaur is a creature half man and half horse, without the words « man » and « horse » raising in the mind the images of human beings and of horses, and without the combination of these images. If the answer to these questions is « not », I think that we must admit that the act of building up the image of a centaur hangs on the power of combining in a meaningful way the meanings of the words « man » and « horse » and the images that accompany them.

7. Recollection as an example of usage of productive imagination

Now that we have a working hypotheses of construal about Aristotle's theory on the relation between intellectual cognitive states (νοήματα) and cognitive states that are relics of past exercises of sense-perception or that are simple combinations of such relics (φαντάσματα), I will now test our hypothesis, by checking if it is adequate to the interpretation of one single bit of doctrine: Aristotle's theories about anamnesis and productive imagination, two activities which are very close to each other.

First of all, let us see what is ἀνάμνησις (otherwise called « reminiscence » or « recollection »), a cognitive performance to which Aristotle devotes the whole chapter 2 of his treatise *De memoria et reminiscencia*:

« ὅταν ἀναλαμβάνη ἦν πρότερον εἶχεν ἐπιστήμην ἢ αἴσθησιν ἢ οὐ ποτε τὴν ἕξιν ἐλέγομεν μνήμην, τοῦτ' ἐστὶ καὶ τότε τὸ ἀναμνησθεσθαι τῶν εἰρημένων τι κτλ. [when he/she recollects science or sense-perception or whatever else <nb. the φάντασμα is here meant>, whose possession we have called <int. in the first chapter of the treatise> “memory”, this is (and in such cases happens) the recollection of these things, etc.] » (*De memoria* 2, 451b 2-5).

The possession of memory, according to Aristotle, is the possession of a φάντασμα we have identified as an image (cf. « ὡς εἰκόνοσ », 451a 15) of the thing of which it is a φάντασμα: i.e. as a cognitive state that refers to the experience in which we acquired it, and in which it was produced (451a 14-17). The exercise of memory is the reactivation of that φάντασμα, a reactivation which must be accompanied by the act of noticing that some lapse of time has passed from the moment in which we acquired the φάντασμα (cf. 449b 22-30) till now. The recollection is the very common and very usual action of *voluntarily* reactivating one bit of memory: e.g. when to the vague impression which refers to a past experience (an impression which *per se* would be just a φαντασία, i.e. the relic in the sentient body of a past exercise of sense-perception, cf. *De anima* III 3, 429a 1-2) we add the awareness that some time has passed, thus transforming into a memory what was just a φαντασία; or when, in the opposite way, we have already some cognition of the time which has passed (e.g. one year) and we ask themselves what was happening to us *then*, and we try to recollect the φαντάσματα that pertains to that time, in order to remember that experiences.

Aristotle credits with memory many animal species (all the animal species that perceive time), but he thinks that reminiscence is an exclusively human feature:

« αἴτιον δ' ὅτι τὸ ἀναμνήσκεσθαι ἐστὶν οἶον συλλογισμὸς τις· ὅτι γὰρ πρότερον εἶδεν ἢ ἤκουσεν ἢ τι τοιοῦτον ἔπαθε, συλλογίζεται ὁ ἀναμνησκόμενος, καὶ ἐστὶν οἶον ζήτησίς τις [and the cause is that recollecting is similar to reasoning: indeed, the subject which recollects draws the conclusion that in the past he saw or heard or lived such an experience; and <this> is something like a search] » (*De memoria* 2, 453a 9-12).

Anamnesis needs rational powers, because the performance of voluntary memory needs a subject who is able to identify, through some steps which are similar to the steps of a line of logical reasoning (even if they are not identical to the steps of a line of logical reasoning, as we can see from 453a 10, « οἶον »), either the time in which the experience of which we already have the φάντασμα (and which we would like to situate in the past) happened, or the experiences that happened in some specific period in the past. If this is the reason why we need the rational faculty in order to be able to perform anamnesis, then we could say that anamnesis entails the rational faculty because it entails the power to construe, compare and check virtual scenarios and counterfactual hypotheses: hypotheses either about which could have been the course of the events that happened in some particular period of time we want to remember; or about which could have been the time in which some events (of which we have already a φαντασία at hand) happened ; or else because, in order to stimulate the retrieval of the relevant φάντασμα, we need to make the φαντάσματα flow according to some criterion (e.g. according to a chronological order, starting from some event we already remember, or according to their placement in the *loci mnemonici*), and such an ordering criterion activates a sequence of φαντάσματα which, even in those cases in which it lacks a real « narrative plot », still obeys to a sequence which the cognitive agent has devised.

It seems, therefore, that anamnesis devises and checks hypotheses of narratives or fictitious scenarios: from this point of view, it is a strict relative of creative imagination, which (by definition) construes unreal or hypothetical scenarios. If reminiscence is what I have said, it is clear that it is a particular way of using imagination: reminiscence presupposes imagination, but it adds to imagination the effort of checking the correspondence of the scenario we are construing to a real past scenario.

In order to understand what Aristotle says about ἀνάμνησις, we will therefore start from what he says about imagination.

8. Φαντασία λογιστική vs sensory-phantastic habit: two levels in the order of cognitive powers

Let us go back to what we already saw: Aristotle's mention, in *De anima* III 10, 433b 29, of the existence of a « φαντασία which is ruled by λόγος » (« φαντασία λογιστική ») drew our attention to the importance he gave to the possibility of combining signs in an infinite number of ways: a possibility which is allowed by the power of combining words and, with the words, the φαντάσματα and νοήματα that always accompany them.

Hence comes the power of combining φαντάσματα in combinations which are different from those that appeared in the animal's previous experiences, and therefore of imagining things and situations which do not exist, or which do not exist yet but could exist; or even things and situations which cannot exist at all, but whose existence is anyway conceivable. This is the power of the soul of building intentional objects which lack any reference to reality (e.g. the deer-goat). This power is allowed by the possibility of combining words (« deer », « goat ») according to rules which are the rules of language, rules that are different from the rules of external reality.

But, at a deeper level, φαντάσματα, even before being ordered by language, do already have an order of their own, which results (1) from the previous experiences of the perceiver and (2) from its biological, species-specific and individual, characteristics, which obviously condition the possibilities of experience of the perceiver.

Now, we will have a look at what Aristotle has to say about this pre-linguistic order of the φαντάσματα. Then we will return to how this pre-linguistic order is embedded in the linguistically driven imagination. Finally, we will move to reminiscence.

The weight of (1) previous experiences in shaping the perceiver's φαντασίαι is clear from the definition itself of φαντασία in *De anima* III 3, 429a 1-2, as a movement which is generated by the act of sense-perception, and by the whole of *De insomniis*, which works out a complete theory about sensory mistake on the ground of this definition. The idea that φαντάσματα are re-activated according to an order which mirrors

(with some distortions) the order of the original experiences underlies the whole theory of Aristotle about dreams and is explicitly repeated in the *De memoria et reminiscentia*:

« συμβαίνουσι δ' ἀναμνήσεις ἐπειδὴ πέφυκεν ἡ κίνησις ἥδε γενέσθαι μετὰ τήνδε [exercises of recollection can happen because this movement is such as to come after that other (movement)] » (*De memoria* 2, 451b 10-11).

Aristotle is also ready to tell us (451b 13-14) that, when this does not happen by necessity, due to the necessary mutual entanglement of two features of the environment (and therefore of the sensory experiences we have of these features), it happens on account of habitude (« ἔθει », 451b 14).

As far as (2) biological individual characteristics are concerned, we can read these two text :

« οἱ δὲ μελαγχολικοὶ [...] διὰ τὸ μεταβλητικὸν ταχὺ τὸ ἐχόμενον φαντάζεται αὐτοῖς [melancholic people (...): on account of their disposition to change, what follows (in the series of φαντασίαι) rapidly appears to them] » (*De insomniis* 2, 464a 32 - 464b 1).

« ἔτι δὲ διὰ τὴν σφοδρότητα οὐκ ἐκκρούεται αὐτῶν ἡ κίνησις ὕφ' ἐτέρας κινήσεως [and, on account of its strength, the <phantastic> movement is not repelled by any other movement] » (*De insomniis* 2, 464b 4-5).

I have chosen those texts, not only because they point to the importance of physiological features of the individual in shaping its cognitive attitudes, but also because here is clearly stated the nature of the order that Aristotle has in mind: this order is an order of consecution.

Now, how come that the φαντάσματα stored during the various acts of sense-perceptions do not simply produce a chaos of incoherent hallucinations, but produce, instead, an organized *habitus* (« ἔθος ») which obeys to such a sequence or consecution?²⁶ Because what happens in some given succession in the environment outside produces, in the sense-organs, a series of φαντάσματα whose consecution corresponds to the succession between the experiences in which the φαντάσματα were originally produced.

If we can extrapolate a conclusion from his remarks about melancholic people, it seems that Aristotle held that sentient beings have individual attitudes to composition of φαντάσματα, and that these attitudes differ on account of the individual physical complexion, of past experiences,

²⁶ I here give only a sketch of my conclusions about this topic: a complete discussion is to be found in Feola 2016.

and of course of the kind of sense-organs of that given kind of animal. I call this attitude to create chains of φαντάσματα²⁷ « phantastic *habitus* » of the species or of the individual, and we can define it as the fact that, in any given situation *X*, αἴσθημα *Y* will be followed by the φάντασμα *W* more probably than by any other φάντασμα.

By increasingly storing elementary φαντάσματα that are produced by repeated episodes of sense-perception of elementary *qualia*, the phantastic *habitus* comes to exhibit varieties and regularities that mirror the environmental ones, on account of statistical necessity.²⁸ These phantastic habits create, in turn, perceptual habits: habits to perceive the environment in such or such a way, ways that are typical of the species or of the individual, and that are conditioned by the φαντάσματα that have been stored in previous experiences and that are at hand for usage as material for new episodes of cognition.

This stage of cognitive development, according to Aristotle, pertains, in various measures, also to many species of not-human animals.²⁹ But rational animals can do more; and here we return to the linguistic order which superimposes itself on this perceptual order we have now described: « and in fact “deergoat” too means something; but it does not mean the true or false yet » (*De interpretatione* 1, 16a 16-18). The deer-goat, although never experienced by any human being, can anyway be imagined, due to the fact that Greek language can connect the word for « goat » to the word for « deer ».

9. Getting orientated in our phantastic habitus

Can we go beyond this kind of performances? Yes, of course, as everyone of us knows well, and as Aristotle knew too:

« τῶ γὰρ ἔθει ἀκολουθοῦσιν αἱ κινήσεις ἀλλήλαις, ἥδε μετὰ τήνδε, καὶ ὅταν τοίνυν ἀναμνησκέσθαι βούληθαι, τοῦτο ποιήσει· ζητήσει λαβεῖν ἀρχὴν κινήσεως, μεθ’ ἣν ἐκείνη ἔσται [it is by habitude that (sensory) motions follow to each other, this one after this other one; therefore, when

²⁷ Labarrière 1990, 420 describes this attitude as a « proto-réminiscence ».

²⁸ This was a great interpretative intuition by Beare 1906, 315: according to him, Aristotle held that the successions of the phantastic movements imitate, as a statistical regularity, the regularities of the features of the environment in which the animal live, because those regularities dictate the regularities in the animal’s experience.

²⁹ Cf. *Historia animalium* VIII 1, 588a 25 - 588b 10; for a discussion of this bit of doctrine, cf. Coles 1997 (see, in particular, 316 and 318-319).

we want to recollect, we do just this: we will try to catch a principle of motion, after which there will be that one <int. the one we are searching for>] » (*De memoria* 2, 451b 28-31).

Even if the details of the *ars mnemonica* which Aristotle here takes as a model for his theory are unknown to us, what seems clear is that, if we have a vague idea of what we want to remember, we can search, in the sets of the φαντάσματα that pertain to that domain of our past experience, for a φάντασμα which has the key-feature of being a φάντασμα which, with a high degree of probability, will be associated with the φάντασμα of the thing we want to recollect, because the two pertain to the same set of things (either the same category of things, or the same place, or the same time, or the same course of events, etc). Once we have activated the φάντασμα which is ready at hand, other φαντάσματα will be activated, among which, if we have chosen well the first item of the chain, there will also be the φάντασμα we were searching for. This means that Aristotle is taking for granted a power we should have by nature, and that the art of recollection tries to educate: the power of following the nodes of the network of our phantastic association; otherwise said: the power of getting orientated in our own phantastic habitus.

10. Manipulating our own fantastic *habitus*

This is not the whole story. Not only we can get orientated in our own *habitus* of phantastic associations. We can also manipulate it: we can populate it with deer-goats; or we can create a whole imaginary landscape, e.g. the plain of Troy or the map of Odysseus' voyages, which will be useful if we want to compose the *Iliad* or the *Odissey*. We can also act in a more pervasive fashion on our *habitus*, by giving it a permanent order and arranging it according to the system of the mnemonics places: in this case, we will have to create a whole imaginary landscape (a building, a street, a city) in which we will « put » the items we think we could, sooner or later, need to recollect. It is highly probable that the mind of ancient orators was completely shaped by this kind of training, and therefore that their mental associations were completely modelled by the imaginary landscapes of the *loci mnemonici*.³⁰

³⁰ On the importance, for Aristotle's treatise *On Memory*, of this kind of practices, see Sorabji 1972.

This creative power is due to the combinatory features of language: in the case of universal items, the items we want to recollect can be recalled whenever we want just by telling their names (« dog », « man », « triangle », etc.). In the case of imaginary items or of concrete particular items, more pervasive methods will be needed, which combine the power of language with other ways of modelling our own imagination, in a way which is similar to the methods that were taught by the mnemotechnic, or to the methods that were used by Homer in composing his poems³¹.

11. Conclusions

Now we are finally able to understand Aristotle's theory about ἀνάμνησις:

« ὅταν οὖν ἀναμνησκόμεθα, κινούμεθα τῶν προτέρων τινὰ κινήσεων, ἕως ἂν κινηθῶμεν μεθ' ἣν ἐκείνη εἴωθεν [hence, when we recollect, we move ourselves with some of the movements that <in the usual order of the movement> come before <the one we want to catch>, till we are moved <by that movement> after which that one <we are searching for> usually comes » (*De memoria* 2, 451b 16-18).

When we exercise anamnesis, we do something very complex: we go beyond the act of getting orientated in our phantastic *habitus* just following the nodes between different chains of φαντάσματα and creating new chains; we exercise what we could call a « 2nd order orientation ». We trace the origin of each node, retracing the time-location (the position in the « film » of our life) and the situation in which we acquired that φάντασμα, recalling, in a more or less detailed way, the other φαντάσματα with which that single bundle of φαντάσματα is associated, thus contextualizing it.

To conclude: the power of reminiscence is the power (1) to trace the associative links to which our phantastic *habitus* obeys and (2) to use these links (after having appropriately educated them) in order to speed up the recovering of various informations about our past experiences in the framework of a more or less articulated autobiography.

³¹ An analysis of the traces left in the structure and features of *Iliad* and *Odyssey* by the massive usage of various kinds of mnemonic technics can be found in Minchin 2001.

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