Giuseppe Feola phantasia, imagination, noûs: on the relation between phantàsmata and noēmata in Aristotle's psychology

Analytica posterior II 19 treats the problem of how we can reach the àmesai archài of science, which is the main task of the intellect: that chapter describes the main *èrgon* of the human intellect and the genesis of the *intellectus in habitu*. In De anima III 4-6, Aristotle faces the problem of what is intellect, and of which its conditions of existence could be: its matter and its efficient cause. 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 an explanation, from Aristotle's part, of the normal, everyday activities of the human reason and mind, which is characterized by an overall cooperation between the intellect already in habitu, sense-perception, memory, imagination etc. But the many fragmentary statements we can get from various texts seem to suggest that Aristotle actually had such a theory. What we can do, is just to collect these few hints he gives us, and try to draw a sketch of how his theory could look like. I will try to perform this task by addressing the problem of the relation between the nòēma, the cognitive state in which the activity of intellect is realized, and the cognitive states in which are realized the activities of sense-perception and *phantasia*, that is *àisthēma* and *phàntasma*. I think that in this way we will be able to reach some hints also about the psychological 'mechanism' which Aristotle seems to presuppose as an explanation of the intellect's power to generate a $l \partial gos$.¹

The dependence of the exercise of thought on the presence of a *phàntasma* as its material condition is clearly stated by Aristotle in a famous sentence in the *De memoria et reminiscentia* (1, 449b31):

νοεῖν οὐκ ἔστιν ἄνευ φαντάσματος

it is impossible to think without a *phàntasma*².

This fact implies that the $n\partial \bar{e}ma$, the cognitive state in which the act of thinking is realized³, is embodied through its link to one or more *phantàsmata*. The *phàntasma* is a sensory or perceptual stimulus which either (1) is the relic of a past exercise of sense-perception or (2) is the result of the mix of various

¹ I treated the problem of the genesis of the intellect *in habitu* in my paper *In confinio sensus et intellectus. APo. B 19* in "Documenti e studi sulla tradizione filosofica medievale", 20, 2009, pp. 73-93; after that, I treated the problem of what intellect is in *Ordine, intelligenza e intelligibilità del cosmo nel* De anima *di Aristotele (III 4-5)*, « Methodos », 16, 2016, *La notion d'Intelligence (nous-noein) dans la Grèce antique. De Homère au Platonisme*, <u>https://methodos.revues.org/4410</u>. I come here to approach the third part of the triptych: the problem of how intellect works.

² Apart from where explicitly stated, all translations are of my own.

³ The term " $n \delta \bar{e} m a$ " 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 synthesis between two or more *no mata*. For a discussion of its meaning, see Feola, *Ordine, intelligenza*, cit.

relics of past exercises of sense-perception⁴. We know that Aristotle thought that many *phantàsmata* can mix and form a new, more complex, *phàntasma*: this is the way in which, according to Aristotle, dreams are produced⁵; this is also the condition that allows people who 'manipulate' their mental landscapes to produce their sets of mnemonic 'places'⁶. In all these cases, the mixing of many *phantàsmata* produces a new *phàntasma*, and, according to the doctrine of the four causes, it would be obvious to describe the relation between the original *phantàsmata* and the new one as a matter-*sýnolon*-form relationship. Also the relationship between the *phàntasma(ta)* and the *nòēma* should be, in principle, described as a matter-*sýnolon*-form relationship: we can see, in fact, that Aristotle describes it with the usual wording "*ouk àneu*" which describes the hypothetical necessity relationship in general, and, more specifically, the matter-*sýnolon*-form relation. So, a question arises: in which way does the relation between the *nòēma* and the *simpler* original ones differ from the relation between the *nòēma* and the *phàntasmata*?

Why the union of many *phantàsmata* produces a more complex *phàntasma* in some cases, while in some other cases it gives birth to a $n\partial \bar{e}ma$? In which way do these two instances of union differ?

φαντασία γὰρ ἕτερον καὶ αἰσθήσεως καὶ διανοίας· αὐτή τε οὐ γίγνεται ἄνευ αἰσθήσεως, καὶ ἄνευ ταύτης οὐκ ἔστιν ὑπόληψις. (*De anima*, III 3, 427b14-16) *Phantasìa*, in fact, is something different both from sense-perception and from

intelligence: it doesn't come to be on its own without sense-perception, and without it there can be no belief.

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. The result of this discussion is that, in the map of the various powers, there is a blank place, which must be filled by the so called "phantasia". The second half of the chapter (427b27-429a9) is a short treatise on the definition of 'phantasia', while the first half (427a17-b26) 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 phantasia (which is defined only at the end of the chapter, in 429a1-2) should solve the many problems raised in the

⁴ For more details about how the concept of 'perceptual stimulus / sensory motion' should be construed in Aristotles' psychology, see G. Feola, *Il moto fantastico-percettivo secondo Aristotele (Aristotle on the nature of sensorial stimuli)*, in « Lexicon Philosophicum. An international Journal for the History of Texts and Ideas », 3, 2015, http://lexicon.cnr.it/index.php/LP/article/view/452/361.

⁵ De insomniis, 3, 460b28-461a11 and 461b17-22.

⁶ This is what emerges from treatises on mnemotechnics as f.i. *Rhetorica ad Herennium* III, Cicero's *De oratore* II, 350-360, and Quintilianus' *Institutio oratoria* XI: in reading the second chapter of De *memoria et reminiscentia*, we have to be aware that the cultural landscape of Aristotle's text are practices as these.

previous parts of the chapter. After that Aristotle has told us that the map of the cognitive powers is defective, he adds *phantasia* to the picture; but he does not tells us how exactly the presence of *phantasia* makes the picture less defective.

I think that the entrance of *phantasia* in the theoretical framework does actually solve the problem Aristotle has here set, because those problems were generated by a lack of concern with the genetical relationships between the various levels of the cognitive soul, and the entrance of *phantasia* in this landscape adds exactly what Aristotle needed: a genetical point of view on the connections among the powers⁷. Here, again, we find the key-words "*ouk àneu*": sense-perception is the material condition of *phantasia*, and *phantasia* is the material condition of belief (i.e. propositional thought). Anyway, what concerns us here, is the fact that this passage clearly treats *phantasia* 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 about how exactly Aristotle construed the relation between *phantàsmata* and *noềmata*. At least, we do not know anything *yet*. Let us have a look to another passage:

ών [...] ταῦτα [*int*. γράμματα, φωναί, l. 5] σημεῖα πρώτων, ταὐτὰ πᾶσι παθήματα τῆς ψυχῆς, καὶ ὥν ταῦτα ὁμοιώματα πράγματα ἤδη ταὐτά.

The 'first' things, of which these other things [*int*. the letters and vocal sounds] 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 in themselves, of course identical (*Int.* 1, 16a6-8)

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"? 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 have the same content and they are about the same intentional objects.

So, the question arises: how can two people think to just one (and the same) intentional object? If we bear in mind the hypothesis that the relation between *phantàsma(ta)* and *nòēma* is a matter-form relation, and if we bear in mind, moreover, the famous principle according to which the same form can be realized in different matters if these different matters share the properties that are relevant for the realization of that form, we can set the hypothesis that (1) a *nòēma* is defined by its intentional object, (2) two people that think to one and the same intentional object have the same *nòēma*, (3) this one form, the *nòēma*

⁷ I argued in favour of this thesis in my book *Phàntasma e Phantasìa*. Illusione e apparenza sensibile nel De anima di Aristotele, Loffredo, Napoli, 2012.

which is the same for the two people, can be enmattered in sets of *phantàsmata* which are peculiar to each of the two people.

So, this passage, joint with this other one

τὰ μὲν οὖν εἶδη τὸ νοητικόν ἐν τοῖς φαντάσμασι νοεῖ

the power of thinking thinks the forms in the *phantàsmata* (*De anima*, III 7, 431b2), seems to confirm that the relation between the $n\partial \bar{e}ma$ and the *phantàsma(ta)* pertains to the matter-form kind of relation.

And, following this line of enquiry, we also have reached a relevant point: what Aristotle calls " $n\partial \bar{e}ma$ " is not the *sýnolon*, it is the form; the *sýnolon* is that particular instance of thinking, performed by that particular person, whose matter are that particular *phantàsmata*.

I think that Aristotle could have thought to something like the following: perhaps, when we think to the universal *horse*, you imagine a white horse, while I imagine a black one; but, as far as these two *phantàsmata* share, in your and my acts of cognition, the same role of exemplifying the concept *horse*, they are perfectly equivalent. Their difference turns out to be important, if we cease to treat them as matter of our $n \partial \bar{e}ma$, and we go back to their roles in our exercises of *phantasìa*: from this second point of view, they present to us two different intentional objects (phantastic objects, not conceptual ones), a white and a black horse, and they are therefore different.

Let us, now, see a very famous passage about how *phantasia* works for the sake of the activities of the intellect (or, if we prefer, how intellect works on the materials that *phantasia* provides), *Mem.* 1, 450a1-5:

τὸ αὐτὸ πάθος ἐν τῷ νοεῖν καὶ ἐν τῷ διαγράφειν· ἐκεῖ τε γὰρ οὐθὲν προσχρώμενοι τῷ τὸ ποσὸν ὡρισμένον εἶναι τοῦ τριγόνου, ὅμως γράφομεν ὡρισμένον κατὰ τὸ ποσὸν, καὶ ὁ νοῶν ὡσαύτως, κἂν μὴ ποσὸν νοῆ, τίθηται πρὸ ὁμμάτων ποσόν, νοεῖ δ' οὐκ ῇ 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 thinks is doing something similar: even if he does not think to 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.

The main feature of intellectual activity (there is no need, here, to distinguish between intellect and reason, even if the distinction is very important in other contexts) is 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 *phantàsmata* will be recalled in imagined landscapes in which they will (again) occupy different portions; but what's important is that my intellect can select the features of the *phàntasma* 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 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: I will use only the features of the *phàntasma* that correspond to features of its intentional object that are relevant to the theorem, f.i. the features of the *phàntasma* that correspond to that

particular feature of the intentional object which is the sum of its angles. And this ability implies that I can use different *phantàsmata* of different triangles, given that these triangles all have the same sum of the angles; that I can change the *ratio* among the lengths of the sides; that I can 'manipulate' the *phàntasma* 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 *phantàsmata* can be so dense and full that it can be an effective substitute of external reality, and so flexible and open to re-combination that it can provide fulfilment to almost every need of the intellect. To be sincere, Aristotle never and nowhere tells something similar. But his mention of the existence of a *"phantasia* which is ruled by *lògos"* ($\varphi \alpha v \tau \alpha \sigma (\alpha \lambda o \gamma \sigma \tau w \eta)$, *De anima* III 10, 433b29) 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 word and, with the words, the *phantàsmata* which always accompany them, seems to be exactly what Aristotle here needs.

To resume: the association of *phantàsmata* to words, and the indefinite possibilities of combinations of words, and therefore of *phantàsmata*, can provide our imagination with an indefinite number of specimens of each species and genre; and this, in turn, provides the possibility of changing at will the features of the specimen(s) that I am imagining while I think to 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. It is not necessary to 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* depends 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), I am *ipso facto* noticing what is essential and what is not.

The hypothesis of reconstruction I have set forth about Aristotle's theory on the relation between intellect, reason, language and *phantasia*, 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, just could be real (but could also be not)? After all, Aristotle, in his dialectic discussions, uses thoroughly the procedure of *reductio ad absurdum*, which was very common in his days' mathematics; and the *reductio ad absurdum* is a procedure which asks for the philosopher or scientist to imagine and examine in a rigorous way something which, at the end of the reasoning, will be proved as false and not existent.

Let us see another passage:

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

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 opining is not in our power, for the belief that we hold must be either false or true. (*De anima*, III 3, 427b17-21⁸)

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: there is a suspension of belief, which seems to be the same kind of suspension of belief that we perform when we construe a mathematical hypothesis we want to examine but which we have not yet accepted or discarded. Another way to describe this opposition would be by distinguishing the *thought* as a *process* which moves from hypothesis to hypothesis, from conditions to consequences, from the *belief* as the *result* of this process, 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, in which we are more free. This is the way of using thought which is not bound to the aim of being true: 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 all its consequences.

It is important to notice that this usage of thought is not restricted to the performance of acts of theoretical thinking. In 427b21-24 Aristotle provides an example for his distinction between thought-as-process and belief, taking his example from the field of practical behaviour:

όταν μὲν δοξάσωμεν δεινόν τι ἢ φοβερόν, εὐθὺς συμπάσχομεν, ὁμοίως δὲ κἂν θαρραλέον· κατὰ δὲ τὴν φαντασίαν ὡσαύτως ἔχομεν ὥσπερ ἂν εἰ θεώμενοι ἐν γραφῆ 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 *phantasia* we are no more affected than if we saw in a picture the objects which inspire terror or confidence. (*De anima* III 3, 427b21-24⁹)

We can picture to ourselves 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,

⁸ Translation by R.D. Hicks (*Aristotle. De Anima*, with translation, introduction and notes, Cambridge University Press, Cambridge, 1907; reprinted by Ayer Company, Publishers, inc., Salem, New Hampshire, 1988), save for the substitution of "belief" to "opinion".

⁹ I preferred here to change Hick's translation.

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 necessarily existent or not existent, real or not real: if only *phantasia* 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 *phantasia* in the construction of such landscapes, and which can, therefore, testify to itself that such landscapes are not real: so, while the *phantasia* that presents the landscape is actually false, its falseness turns out to be pointless, because the more complex cognitive act, which encompasses both this *phantasia* and the consciousness that I produced it, is neither false nor true.

This complex game between reason and *phantasia* is something far more elaborate than the simple *phantasia* as decaying sense which will be defined at the end of the chapter (429a1-2): it is clear enough that this kind of *phantasia* can be treated as an instance of thought because it is something which cannot be reduced to a sheer result of sensory activities, being the product of manipulation of *phantàsmata* by reason. This same passage shows as well 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 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".

τῶν καθ' ἕκαστον ἡ κατ' ἐνέργειαν αἴσθησις, ἡ δ' ἐπιστήμη τῶν καθόλου· ταῦτα δ' ἐν αὐτῷ πώς ἐστι τῷ ψυχῷ. διὸ νοῆσαι μὲν ἐπ' αὐτῷ, ὁπόταν βούληται, αἰσθάνεσθαι δ' οὐκ ἐπ' αὐτῷ· ἀναγχαῖον γὰρ ὑπάρχειν τὸ αἰσθητόν.

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, 417b22-26, translation by R.D. Hicks)

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 *phantasia*, 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 *phantasia* obeys to our usage of language, and a set of *phàntasmata* which embodies the appropriate $n\partial \bar{e}ma$ is promptly recalled when I tell the name of the thing. What is common both to the concept of 'thinking' ($no\hat{e}sai$) of II 5 and to the concept of 'thought' ($n\partial \bar{e}sis$) 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 senseperception 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 that the cognitive activities that are performed in it stem from the land of sense-perception and grow towards the land of intelligence. Aristotle construes the matter-form link which holds between *phantàsmata* and *noềmata* in order that the power of reference with which the *noeîn* is endowed could be freed as much as it is possible from that of the *phantasìa*. Indeed, between *phantasìa* and *noûs* there is the space of imagination: what allows the *noûs* the power to perform cognitive operations which are not strictly bound to the sense-data is the power of the soul of building intentional objects which lack any reference to reality, and this power is allowed by the possibility to combinate words according to rules which are the rules of language, rules that are different from the rules of external reality.

Such a power pertains, to be sincere, according to Aristotle, also to that kind of *phantasia* which is not ruled by language: otherwise, Aristotle could not think that some non-human, non-linguistic animals, do have the power of picturing and imagining behaviours which can lead to the resolutions of problems and puzzles (see *Historia animalium*, VIII, throughout): so, it is clear that Aristotle credits at least some non-linguistic animals with the ability of picturing, visualizing, imagining possible courses of action. Aristotle can formulate such an hypothesis, because he thinks that these animals are able to perform, by using just their complex *phantasiai*, cognitive acts which are analogous to the acts which human mind can perform (*HA*. VIII 1, 588a18-31). But it is clear that a linguistic mind has (for the reasons we have specified) such a power in a far greater measure.

Such a power is the power of combining the *phantàsmata* in combinations which are different from how they 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.

καὶ γὰρ ὁ τραγέλαφος σημαίνει μέν τι, οὔπω δὲ τὸ ἀληθὲς ἢ ψεῦδος κτλ.

And in fact 'deergoat' too means something; but it does not mean the true or false yet (*Int.* 1, 16a16-18)

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". 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 nothing no meaningful discourse can be done.

PS – the deergoat (*Tragelaphus scriptus*) has been discovered, real and alive, in Sub-Saharan Africa in 1766.