

## THE COGNITIVE ROLE OF *PHANTASIA* IN ARISTOTLE

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### I. Problems with a Unified Concept of *Phantasia*

THE difficulties with the concept of *phantasia* start with the translation. One problem is that *phantasia* does triple duty. It designates the capacity, the activity or process, and the product or result. It is, of course, not alone in having so many chores. 'Sight', for example, in English has as many functions: it signifies the capacity to see, the seeing, and what is seen. This multiplicity need not by itself create any confusions. We usually know quite well whether we mean the capacity of sight or the seeing or the thing seen. Even grammatically it is usually clear what we mean: 'you are a terrible sight' is quite unequivocal, as is 'my sight is getting worse and worse'.

What makes *phantasia* more troublesome than 'vision' is partly that we have no single word in English that would do all three jobs. But, unfortunately, that is not the major problem in Aristotle. We are also unsure what capacity, what process, and what product the word denotes in each case. In order to provide a preliminary clarification I want, as other commentators have done before me, to refer to the etymological derivation of *phantasia* from *phainesthai* or *phantazesthai*<sup>1</sup> and claim that 'appearance' in a wider sense should be regarded as the central meaning to which all functions of the term are related. It would then be (i) the capacity to experience an appearance, (ii) the on-going appearance itself, and (iii) what appears.

Sometimes, however, this does not seem appropriate; rather something like our 'imagination' would be more adequate. The latter sense is not unrelated to 'appearance', since it means something like the *creation* of an appearance, so that it is related to the former like active to passive (or medium).<sup>2</sup> Unfortunately this is still not all, there is yet another distinction to be observed. Just as we do in

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<sup>1</sup> Cf. Schofield (1979), 105 n. 11. Aristotle often treats *phantasia* as the noun corresponding to *phainesthai* (cf. *DA*, 428<sup>a</sup>7, 14; 428<sup>b</sup>1, 3; 433<sup>a</sup>28). Where there is no question of simple appearance but intentional imagining is meant he uses *phantasthēnai* (433<sup>b</sup>12).

<sup>2</sup> In its active sense it also has those three functions, and 'imagination' covers all three meanings: the capacity to create appearances, the creating itself ('imagining') and the created appearance itself, what is imagined. Aristotle does not use *phantasia* for poetic creativity but calls the poet an *eikōnopoios* (*Po.* 1460<sup>b</sup>9). For an interesting overview of the history of the 'creative' sense of *phantasia* cf. Rosenmeyer (1986).

English, so one distinguishes in Greek between a 'mere appearance', a phantom, and a 'real appearance', a phenomenon.

Aristotle uses *phantasia* in all those meanings, although he most frequently seems to presuppose the passive or medial meaning of 'having an appearance'; but the active use in the sense of *eidōlopoiein* (*DA* 427<sup>b</sup>18–20) also occurs.<sup>3</sup> Aristotle's often displayed insouciance about the different meanings does not imply any confusion, however. Throughout his psychological writings he not only distinguishes very carefully between capacity, activity, and product, but in the case of *phantasia* he also often switches to *phantasma* to designate the product, and occasionally uses *phantastikon* for the capacity (432<sup>a</sup>31).<sup>4</sup>

But even granted that Aristotle himself does not suffer from confusion about the many meanings, the crucial question remains: what kinds of 'appearances' does Aristotle have in mind and why should there be a special capacity for them? The treatment of *phantasia* in 3. 3, the only place where it is discussed extensively, is confusing, at least at first sight. On the one hand, *phantasia* is regarded as a necessary condition of thought ('there is no supposition without it', 427<sup>b</sup>15); on the other hand its definition suggests that *phantasiai* are mere after-images of sense-perception, often false ones (428<sup>a</sup>11–16), which guide animals since they do not have reason, and human beings when they are disturbed by passion or disease, or are asleep (429<sup>a</sup>4–8).

Because of such seeming inconsistencies there has been quite some discussion of this subject in the last years, especially about the cognitive value that Aristotle attributes to *phantasia*.<sup>5</sup> It is not possible to do justice to all these attempts here, let alone to go into the philosophical intricacies of the different interpretations that have been suggested. I will confine myself here to a 'minimal account' of the role that Aristotle ascribes to *phantasia* in 3. 3 and then try to show how this is borne out in the rest of the book and in other relevant texts. I call my account minimal since I do not pretend to deal adequately with all the problems the compressed text contains.

Let us first take a brief look at the problems with 3. 3 itself. Although the overall intention of the chapter is clear, namely to distinguish *phantasia* from the other capacities of the soul,<sup>6</sup> Aristotle seems here to display the untidy-genius

<sup>3</sup> Without wanting to be over-confident on this much debated question, my suspicion is that this active use of imagination, the *eidōlopoiein* in 427<sup>b</sup>20 (that is up to us and is *neither true nor false*) is the sense of *phantasia* that is ruled out in 428<sup>a</sup>2 as *kata metaphoran*, since it never recurs in *De Anima* and does not suit the *cognitive use* which Aristotle wants to ascribe to *phantasia*: i.e. as a capacity according to which we judge and are right or wrong (*kath' has krinomen kai alētheuomen ē pseudometha*, 428<sup>a</sup>3), and which does affect us emotionally (cf. 432<sup>b</sup>8 as against 427<sup>b</sup>24). Most importantly, free phantasizing does not fit the definition of *phantasia* that is soon to follow: a motion in the soul caused by sense-perception.

<sup>4</sup> At that point Aristotle expresses doubt whether it is a separate faculty of the soul or whether only its being is different (*tōi men einai—pantōn heteron*). When discussing the soul's capacities themselves Aristotle never includes a *phantastikon* (413<sup>a</sup>23–5; <sup>b</sup>12–13, 414<sup>b</sup>31–2). In *Somn. Vig.* 459<sup>a</sup>16, 458<sup>b</sup>30, 462<sup>a</sup>8 it is clear that it is the same faculty as *aisthēsis*, only the activity is different.

<sup>5</sup> Cf. Nussbaum (1978), 221–69; Schofield (1979); Watson (1982); Modrak (1986, 1987a).

<sup>6</sup> Leaving aside the criticism of the pre-Socratics' identification of thinking and perceiving (427<sup>a</sup>19–<sup>b</sup>6)

syndrome to an unusual degree. Repetitions and inconsistencies abound. The definition of *phantasia* itself is postponed till the last section of the chapter (428<sup>b</sup>10 ff.); criteria that are at first introduced to distinguish between sense-perception, thought, and *phantasia* are circumstantial, and most of them are soon modified, if not contradicted. Sense-perception, for instance, is at first differentiated from *phantasia* because it is always true while the latter is usually false (428<sup>a</sup>11). Later on it turns out that only 'specific' perceptions are almost (!) always true while the perceptions of common and accidental objects may be false (428<sup>b</sup>18 ff.). *Phantasia* is initially separated from both sense-perception and thought (427<sup>b</sup>14), but then it is subsumed under *noein* and regarded as the counterpart of *hupolēpsis* or supposition (427<sup>b</sup>27). Furthermore, at first *phantasia* is said to be 'up to us', since we can imagine what we please while suppositions depend on the external circumstances since they are true or false (427<sup>b</sup>18). Soon afterwards it is clear that not all *phantasiai* are up to us (dreams clearly are not) and that *phantasiai* can also be true or false, otherwise they would not mislead us. Finally, not all animals are said to have *phantasiai* but all have perception (428<sup>a</sup>9–11): this claim is also modified later.<sup>7</sup>

What surprises one more than these inconsistencies (which can partly be resolved and partly brushed aside as mere negligence)<sup>8</sup> is the fact that Aristotle uses so many arguments from indirect evidence: that is to say, that he spends so much time to point out what sense-perception, *phantasia*, and thought do *not* have in common rather than distinguishing them by their specific objects. That is what one would have expected after his careful description of the senses and his insistence that the *object* defines the faculty in book 2.<sup>9</sup>

A closer look at the final definition of *phantasia* itself explains, however, why Aristotle is so roundabout in his procedure. He seems to want to prepare the ground beforehand and to lead us into agreeing that *phantasia* and sense-perception must be *different*, precisely because according to his final definition there is no separate capacity in the soul and there are no separate objects for *phantasia*: '*Phantasia* is a motion that does not happen without sense-perception but comes to be as the result of the activity of sense-perception and is *like* the perception' (428<sup>b</sup>11–15; 429<sup>a</sup>1; *Somn. Vig.* 459<sup>a</sup>17 f.). *Phantasia*, thus, does not have a faculty of its own but is 'parasitic' on sense-perception.

The truth or falsity of *phantasia* depends likewise on the character of the corresponding sense-perception: the *phantasia* that follows the perception of the special object (*idion*) of the sense (like colour of vision) is true while the perception lasts, but it can become false once the perception is over. The *phantasiai* following the perception of common objects (as that something is in motion) and

<sup>7</sup> On the 'indefinite' possession of *phantasia* in 3. 11 by animals that have only tactile perception cf. further below.

<sup>8</sup> It will, for instance, become clear that *phantasia* is here subsumed under *noein* because it fulfils some cognitive function for animals that do not have reason (10, 433<sup>a</sup>10). Watson defends the coherence of the chapter by pointing out its anti-Platonic stance but does not straighten out all wrinkles.

<sup>9</sup> Cf. 415<sup>a</sup>20; 418<sup>a</sup>7 ff.; cf. *EN* 1139<sup>a</sup>8–11. For a discussion of the 'physiology' of *phantasia* cf. Watson (1982), 103–4. Cf. also Sorabji (1974), 76–92.

of accidentals (that the white thing is a book), can be false both with and without the perception (428<sup>b</sup>25–30).<sup>10</sup> What precisely the status of the different kinds of *phantasiai* is supposed to be is difficult to say at this point, since Aristotle does not give any further depiction of the *causal* connection between sense-perception and *phantasiai*; nor, even more deplorably, does he give anything like a phenomenological description of the different kinds of *phantasiai* that would illustrate what distinguishes them from the corresponding sense-perceptions. It looks as if *phantasiai* here have been degraded to mere epiphenomena, the lingering after-images of sensations.<sup>11</sup>

This impression squares well with Aristotle's assertion earlier in the chapter that we speak of appearance when we do not have clear perception (428<sup>a</sup>12–15) and, still earlier, that *phantasiai* are somehow non-committing, in that we look at them 'as in a picture' (427<sup>b</sup>23–4). The impression does not square well, however, with the assertion that without *phantasiai* there can be no thought (427<sup>b</sup>16) and with the attempt to assign a cognitive function and value to *phantasia* that prompts Aristotle to subsume it under the title of *noein* (427<sup>b</sup>27 ff.). What kind of *noēsis* and *krisis* can we expect *phantasia* to perform if it is utterly dependent on perception, a mere after-image or an unclear appearance?

To answer the question of a positive cognitive function of *phantasia* we have to look beyond 3. 3 and determine what kinds of mental activities, though not performed by perception and reason, are nevertheless necessary for cognition. For it will turn out that there is a wide *gap* between the two, and that at least one of the functions of imagination is to fill that gap. This is not to deny that some *phantasiai* are 'mere appearance'; it is just to show that not all are. I will confine myself to a depiction of two main functions of *phantasia* in Aristotle's psychology: its role in the *synthesis* and retention of sense-perceptions, and its role in applying *thought* to objects of sense-perception.

## II. *Phantasia* as Synthesizer

Aristotle's 'anatomy' of sense-perception gives us a relatively clear picture: perception is conceived of as the interaction between the object of perception and

<sup>10</sup> Modrak (1986) tries to establish a unified concept of *phantasia* as 'awareness of a sensory content under conditions that are not conducive to veridical perceptions' (p. 48). The latter seems to be untenable, for she maintains that *aisthēsis* is then 'limited to cases of veridical perceptions' (p. 52) and suggests at least tentatively that '... all cases of false perceptions are, strictly speaking, cases of *phantasia*' (p. 65 n. 44 also p. 52 n. 16). She does not, however, discuss 428<sup>b</sup>18–25, which contradicts such assumptions and admits false perceptions on all levels. She puts too much emphasis on Aristotle's statement in 428<sup>a</sup>13–15 that we 'never say something appears to us when we perceive it clearly but only when unclearly', and plays down the importance of the distinction made on the physiological level: that *phantasiai* are caused by sense-perceptions.

<sup>11</sup> Aristotle describes in *Somm. Vig.* 459<sup>b</sup>12 ff. with great precision how the after-images of the sun change character and decay: at first it looks yellow, then crimson, then purple, then black until it disappears. He there gives an explanation for the reoccurrence of images: there is a continued motion, both in the inner sense and in the sense-organs of which we are sometimes not aware because we are concentrating on something else (459<sup>b</sup>9). This suggests that we are always full of such unperceived motions.

the actualized capacity. The sense-organ is affected by the *perceptible form* of the object without the matter (*tōn aisthētōn eidōn aneu tēs hulēs*, 2. 424<sup>a</sup>17). Aristotle compares it to the wax that receives the imprint of a seal without its matter (gold or iron). In other words, the soul receives the colour without the paint (coloured surface).

Yet perception is not the mere passive reception of such immaterial imprints. It is also treated as a critical faculty, for it is supposed to 'judge' (*krinei*) what it receives. This translation might be too strong, however, for Aristotle seems to have in mind merely the discernment of the specific objects of the sense.<sup>12</sup> Although he does say that the soul enunciates what it sees (*legei*, 426<sup>b</sup>20 cf. 427<sup>a</sup>1, 9), this cannot mean explicit predication, since animals have sense-perception but not opinions or convictions. This must mean that a dog surely recognizes its master, but that he does so without saying to himself 'this is the master'.<sup>13</sup>

It is difficult to be dogmatic about the extent of the 'diagnostic power' of sense-perception. But, to cut a long story short, to judge from the great pains Aristotle takes to explain how vision, for example, discerns its own immediate objects like black and white, or how the soul can conceive simultaneously that something is white and sweet, the cognitive power of sense-perception is narrowly limited to what is immediately perceived, the *energeia* itself (417<sup>b</sup>24–8; 425<sup>b</sup>6 ff.; *APo.* 87<sup>b</sup>28–39).<sup>14</sup> Because of the emphasis on the singleness of each act of perception and on the need for the presence of its object, it is doubtful that for Aristotle we can have something like a 'panoramic' view of a whole situation, for he does not seem to include anything like a 'field of vision' in his explanations. This would suggest that when I let my eyes glide over the different books on my bookshelves there is always just the piecemeal vision of this or that coloured object; the *overall impression* of all the different books (including those behind my back) would then be already a *phantasia*, a synthesis of what I perceive right now and what I have perceived a second ago and so on.<sup>15</sup> Kant describes very nicely how such a synthesis of a manifold takes place when he describes how we look up and down a house.<sup>16</sup>

Scholars have in recent years drawn attention to the integrative role of the 'common sense', which is also called by Aristotle the 'inner sense' or the 'first sense'. It seems that it fulfils most functions that we ascribe to consciousness,

<sup>12</sup> Like the cognitive power of *phantasia*, the cognitive power of *aisthēsis* has been rather controversial. On the relative self-sufficiency of the senses cf. Schofield, above, ch. 14, p. 249.

<sup>13</sup> Sensory interpretation need not be 'propositional' but can be mere 'noticing'. The same holds for *phantasiai*. Cf. *Somm. Vig.* 458<sup>b</sup>1, where *doxa* says that something is a man or a horse but *aisthēsis* notices colour or beauty. A 'perceptive predication' is defended by Cashdollar (1973), 161, 167.

<sup>14</sup> *DA* 426<sup>b</sup>8–14 (*hoti diapherei*) (cf. 431<sup>a</sup>20–<sup>b</sup>1). Aristotle is rather circumspective here: from the comparison of perception with a geometrical point that is numerically identical but used twice (as beginning and end-point of a line) one gets the impression that the soul discerns black and white 'back-to-back', as it were, in contiguous acts. In *Sens.* 7 Aristotle allows the inner sense simultaneous perception of different senses but still insists that one sense cannot perform opposite motions at the same time (447<sup>b</sup>20).

<sup>15</sup> Cf. *APo.* 1. 87<sup>b</sup>28–39. Sorabji in Aristotle (1972b) introduces the possibility of a 'specious present' (p. 66), but that would not be what Aristotle means by 'hama', which suggests strict simultaneity (cf. *Sens.* 448<sup>b</sup>22 'tōi atomōi').

<sup>16</sup> *Critique of Pure Reason*, A 190 ff.

since it receives all the sensory information and has a kind of 'authority' over the different senses.<sup>17</sup> The dominant role of the common sense is only indicated in the *De Anima* (426<sup>b</sup>17–29) but further elaborated in the *Parva Naturalia*. As a result, one might ask why not assign the 'synthesizing' role to the inner sense rather than to *phantasia*?

Aristotle does indeed ascribe to the inner sense the ability to receive and discern different sensations and perceptions at the same time (*Sens.* 7), so that in principle we can see, hear, taste, or smell an object all at once. Thus the inner sense is responsible for the *koina aisthēta*, the motion we both see and feel, or for the objects of accidental perception, as when we perceive the white thing as the son of Diates.<sup>18</sup>

We should remember here, however, that the inner sense is not a faculty above the different senses but only their centre, where all the different perceptions converge. It may be permitted to speak of 'consciousness' here, but with the proviso that the inner sense *qua* sense contains not more than the imprints of the different sense-perceptions at any moment. Since even in the inner sense the imprints of the perceptible forms last only as long as the perception itself, what lingers on in it when I avert my eye is then already a *phantasia*, an after-image. This would explain why Aristotle at one point calls these imprints 'perceptions and imaginations' (425<sup>b</sup>23) and why he claims that we already have *phantasiai* while sense-perception is still in operation and the object is present (428<sup>b</sup>27).<sup>19</sup>

A much simpler explanation for the simultaneity of perceptions and their after-images would be that unclear perceptions can thus be classified as appearances. But there must be more to it than that. There would be an unbridgeable causal gap if the *phantasma* or image were not produced while the sense-perception was still in operation.<sup>20</sup> Once the perception itself is gone, what should give rise to the ensuing *phantasma*, the kind of after-image that we can see 'with closed eyes'? Once in existence the residual motion has a life of its own, it can change in character and truth-value in the way that Aristotle suggests. He is, unfortunately, not very explicit about when and where those changes take place, and when a perception turns into a *phantasia*; indeed, his account of dreams and the motions that occur in sleep between the inner sense and the external sense-

<sup>17</sup> Cf. Kahn (1966). Kahn points out the continuity between *De Anima* and the other psychological writings (esp. *Sens.* 7), where the 'common sense' is depicted as a co-ordinator (pp. 52, 57 ff.). In *Somm. Vig.* the inner sense is depicted as *to epikrīnon kai kurion* (461<sup>b</sup>25) that says 'what something is like' (461<sup>b</sup>6).

<sup>18</sup> Cashdollar has defended accidental perception as a real perception against Kahn's claim that it falls partly outside perception. Cashdollar has to introduce 'habit' as part of the mechanism that allows us to identify the seen object. One might feel tempted rather to use *phantasia* to explain the association with past experiences.

<sup>19</sup> The remark in 425<sup>b</sup>17 that we perceive the common objects *kinēsei* can be taken to support this interpretation, for it seems to suggest that some compound activity is already necessary to grasp the size or shape of an object, or the number of different objects. Hamlyn in Aristotle (1968), comments somewhat cryptically: 'A plurality of the senses or a plurality of occasions on which the sense is exercised gives perception of a plurality of number' (118).

<sup>20</sup> Cf. *Ph.* 202<sup>b</sup>6–9, 242<sup>a</sup>57–62, *APo.* 95<sup>a</sup>24–36.

organs suggests that the history of the residual motions may vary in complexity and duration. His claim that we are often unaware of those residual motions because of stronger immediate impressions shows that he assumes their continued existence.<sup>21</sup>

One might wonder at this point why Aristotle does not ascribe all after-images to memory, except perhaps the immediately 'decaying' ones that simply seem to linger in the retina for moments after we have seen (like the sun's changing after-images, *Mem.* 449<sup>b</sup>22–30) or that ring in the ears after we have heard. Instead, he explains memory in terms of images. The answer to this question is relatively simple: memory, according to Aristotle in the *De Memoria*, is always the act of remembering a past experience *qua* past. Thus I would have a memory of a sunset only if it were a particular sunset that I had experienced. Free-floating items that come to my mind when I contemplate, say, sunsets in general, are mere images, while memories are images that are likenesses of something retained from the past with the association of the time-lapse.<sup>22</sup>

Image-theories as explanations of representations have been criticized by various philosophers for various reasons.<sup>23</sup> These criticisms need not particularly concern us as long as it is understood that for Aristotle there is no need to assume any precise *correspondence* between a *phantasma* and that which it is a *phantasma* of.<sup>24</sup> Nor need the *phantasmata* be confined to *visual* images: any kind of retained sensory impression would be a *phantasma*, according to Aristotle; vision is just the sense that gets most attention (429<sup>a</sup>2–4). Unfortunately we do not even have a verb that would express how we 'hear' a melody that haunts us, or experience a smell, touch, or taste. 'Recall' might be the best if we keep in mind that it need not be done intentionally.

*Phantasiai* can thus be separated from their origin, while perceptions cannot, and this means that they can give us a coherent picture of a situation that transcends the immediate perception. Imagination can give us the impression of a change over a certain time, as when my eyes glide over different objects in this room or my ears follow a melody. Strictly speaking, the eyes or ears perceive only one object at a time; thus animals without *phantasia* would only get a sequence of incoherent imprints. That *phantasiai*, once they are separated from their origin, may change in quality and the object may change as well explains why Aristotle declares at times that most of them are false and misleading. Since there is no control, no special faculty in the soul, that 'keeps them in order', *phantasiai* can become mere appearances that drift in and out of our consciousness, reappear in

<sup>21</sup> Cf. above, n. 11. As *Somm. Vig.* 459<sup>b</sup>5 ff. shows, Aristotle is clearly aware that it is difficult to draw a line between perception and *phantasiai* and that there is a great variety of after-images (*en bathei kai epipolēs* 67).

<sup>22</sup> *Mem.* 450<sup>a</sup>21 ff.: '... *prosaisthanesthai hoti proteron.*

<sup>23</sup> Nussbaum discusses the problems of an 'image-theory' extensively and with reference to present philosophical criticism of such theories (1978, 224 ff.). Cf. also Schofield above, ch. 14 n. 8. For a brief review of the present-day discussion cf. von Eckardt (1988).

<sup>24</sup> According to *Insomm.* 460<sup>b</sup>6 a small resemblance of the *pathē* is sufficient. Problems like that of 'density' or exactness of correspondence therefore need not arise in Aristotle.



dreams, or delude us in a state of fever. For that very reason Aristotle does not treat the *phantastike* as a separate faculty of the soul, but regards it as a phenomenon that supervenes on sense-perception. Since there is no faculty that is in charge of the images as such, one can do no more when the quality of the images decays or their truth-status is doubtful than to go back to sense-experience itself. Where the senses themselves are not decisive, as in the case of 'incorrigible' appearances like that of the size of the sun, reason itself has to find other means of deciding (428<sup>b</sup>3).<sup>25</sup>

There is very little direct evidence for my claim that Aristotle designed *phantasia*, amongst other things, to constitute something like a 'field of vision' or to furnish us with coherent trains of events. I have, so far, given only reasons why Aristotle should hold this view. What speaks for it, besides the narrow limitation of actual sense-perception itself? There is, first, the perseverance assigned to *phantasiai* (to *emmenein* 429<sup>a</sup>4; *Insomn.* 460<sup>b</sup>1-3) which makes them fit to supply us with after-images, memory of past events, and more or less coherent dreams (*Insomn.* 460<sup>b</sup>27). Secondly, we can, on this hypothesis, explain the remark that *phantasia* provides us with the cognition of the attributes of things (*DA* 402<sup>b</sup>23 *sumbebēkota*), without which science would be empty dialectic. I suggest that he is speaking of the collection of overall impression of sensory objects arrived at by experience. There is, thirdly, the vexatious duplication of sense-perceptions and *phantasiai* in the presence of the object, a puzzle that has prompted the criticism that Aristotle had simply been overwhelmed by his own baroque scholasticism.<sup>26</sup> If imagination is responsible for the 'wider picture of things' then the simultaneity is not only the result of the need for causal continuity, as mentioned above, but necessary for the coherence and continuity of our perceptions as such.

Thanks to imagination, then, we get a fuller picture of a situation or a sequence of situations. If Aristotle regards this as one of the functions of *phantasia*, we can make sense of his claim in *De Sensu* (448<sup>b</sup>13) that 'one sees the sun or a four-cubit rod, but it is not apparent how large they are' (*all' ou phainetai hosa estin*). For there is no question here of an unclear perception as it was in *DA* 3. 3; the explanation seems rather that estimating the size of something is what one might expect from *phantasia* as a kind of comparative seeing, perhaps by comparing the size of the sun with that of tree-tops or chimney-pots. If *phantasia* renders a fuller picture than the different senses themselves, then it is clear why it is often depicted as the counterpart of *doxa* (*Insomn.* 462<sup>a</sup>1: *ou monon phanetai alla kai dokei*; cf. 461<sup>b</sup>1). It gives us the sensory representation of a state of affairs that goes beyond the mere simultaneous reports by the different senses.

<sup>25</sup> On the incorrigibility of this appearance cf. *Insomn.* 458<sup>b</sup>28. Aristotle there also discusses the control of *phantasiai*, 461<sup>a</sup>30 ff.

<sup>26</sup> The uncontrolled status of *phantasiai* as after-images justifies Schofield's contention that *phantasia* should be understood as corresponding to a sceptical, cautious, and non-committing *phainetai* (ch. 14, pp. 251-2, 253-4, 267-8). This is a rather one-sided depiction that does not do justice to the role of *phantasia* in memory, thinking, or decision-making; nor is the causal account of *phantasia* that explains differences in trustworthiness taken into consideration (cf. p. 269).

One might wonder why, except in connection with practical reason, few traces of such a wider use of *phantasia* can be found in Aristotle. The most plausible explanation is perhaps that Aristotle is not usually interested in describing observations of trains of events but rather in things and their properties (cf. *DA* 402<sup>b</sup>27).

### III. Thought and the Objects of Sense-Perception

The role of *phantasia* is, however, not limited to the rendering of after-images and (if I am right) general impressions of present situations and sequences of events. All *thinking*, so Aristotle says repeatedly, depends on them as well. This is the second point we have to turn to. That there can be no thought without *phantasia* is at first claimed without further elaboration (*DA* 427<sup>b</sup>16; cf. 403<sup>a</sup>8-9). But in the following chapters Aristotle explains what his reasons are at greater length.

Something has already been said about the possible 'interpretative' or diagnostic function of both sense-perception and *phantasia*. Since the senses are not confined to the special sense-objects but include also the common objects (size, number, motion, rest, shape) and the accidental objects (e.g. what the underlying object is), it might seem as if both the senses and *phantasiai* already presented the mind with 'finished products', that is, with 'matters of fact' or 'states of affairs': I see the pale thing as the son of Cleon...<sup>27</sup> But one has to be careful not to jump to such conclusions too soon. Seeing something may indeed be always seeing 'something as something'.<sup>28</sup> But this seeing-as need not be explicit and it should not be, since sense-perception and imagination are common both to man and animals and therefore the seeing-as cannot be explicitly predicative or propositional, as mentioned before. This is, presumably, also the reason why Aristotle claims that animals have *phantasiai* but not opinions or convictions, no *pisteis* (428<sup>a</sup>21).

But if *phantasiai* are not *per se* diagnostic what is their relationship to the intellect? In 3. 3 Aristotle only mentions that without *phantasia* there could be no suppositions, but shortly afterwards he specifies the different kinds of suppositions as *epistēmē kai doxa kai phronēsis kai tanantia toutōn* (427<sup>b</sup>25), in other words any kind of thinking that assumes a state of affairs. Given this broad range of intellectual activities, it is surprising to see that the intellect (*nous*) itself is defined in 3. 4 quite narrowly and confined to the intelligible forms: the intellect is related to the intelligible as perception is to the sensibles; it receives their forms, the intelligible forms, without matter. The intellect as such has nothing to do with the body: it thinks by itself (429<sup>b</sup>9) once it has grasped those immaterial forms. Is the intellect

<sup>27</sup> The *nous* in so far as it thinks the intelligible is '*chōristos*' (4, 429<sup>b</sup>5), cf. 430<sup>a</sup>4-5 '*hē epistēmē hē theōrētikē?*'. Aristotle sees no difficulty, however, in applying the *nous* to sensible objects (430<sup>a</sup>7).

<sup>28</sup> Sometimes *aisthēsis* seems to perform 'predicative' functions as well, cf. 431<sup>a</sup>8, but this may be just the implicit recognition that animals have as well.

then strictly confined to the intelligible forms? And how is it related to the material objects given in sense-perceptions?

At first sight it looks as if we have a rigid dichotomy here, for Aristotle seems to limit the intellect exclusively to the thinking of essences, even in material entities like water or flesh, while sense-perception is confined to the material aspect of the same entity (429<sup>b</sup>10 ff.). He concludes: 'Quite generally, then, just as things are separable from matter, so are the objects of the intellect' (421). Such dualism allows Aristotle to claim that with respect to immaterial objects the *nous* is nothing but those objects, since it has no nature of its own but is like a clean slate (429<sup>a</sup>21–3; 430<sup>a</sup>1).<sup>29</sup> So when I think 'man is a rational animal', that is all my mind is at that moment. Similarly with perception: when I see something red that is my perception. The strict separation of the sensual and the intellectual capacities of the soul is asserted time and again: the *nous* is the form of the (intelligible) forms, while sense-perception is the form of the perceptibles (432<sup>a</sup>2).<sup>30</sup>

But in spite of such assertions the autonomy of the intellect, its separation from the body and the senses, is not complete. Aristotle later concedes (432<sup>a</sup>3 ff.) that we only get to know the intelligible forms of all material entities (which means virtually everything except the mind)<sup>31</sup> through knowledge of the sensibles. Sense-perception is thus indispensable at least for learning, and that seems to hold even for abstract sciences such as geometry. Furthermore, as a closer look at the text shows, the function of the intellect in the *De Anima* is not limited to the contemplation of essences, whatever that may mean. It thinks about quite different subject-matters as well (cf. 429<sup>a</sup>23 'what it thinks and assumes'). As we can conclude from Aristotle's own example, the intellect's activity includes discursive thinking about concrete sensible items (430<sup>a</sup>31 ff. 'e.g. Cleon is pale or was or will be', cf. 426<sup>b</sup>22, 31; 427<sup>a</sup>9). And this is the point where imagination comes in. It establishes the connection between the intellect and its sensible objects.<sup>32</sup>

That there is the need for such a connection is explained by Aristotle somewhat cryptically so far as the details are concerned, but is clear in the overall intention. The need for images comes from two sides; they are necessary both for practical and for theoretical reasoning. That we need images for practical reasoning is more easily intelligible and also stands more in the foreground in Aristotle's discussion in *DA* 3 (especially chs. 7–9). All activities, whether based on non-rational or on rational desire, presuppose that I envisage something as good or

<sup>29</sup> *nous* is supposedly free from all influence by the state of the body (429<sup>a</sup>24); it is *apathēs* (429<sup>a</sup>15) and affected by its objects in a way that differs from the senses (429<sup>a</sup>29, 429).

<sup>30</sup> Cf. 430<sup>a</sup>3; this leads on to the topic of the notorious ch. 5 and the active intellect.

<sup>31</sup> In *Insomn.* 458<sup>b</sup>10 Aristotle argues that dreams cannot be a matter of *doxa* since we 'not only assert that some object approaching is a man or a horse, but that the object is white or beautiful, points on which opinion without sense-perception would say nothing ...' This suggests that asserting a universal predicate is a matter of *doxa* alone, even if the subject-matter is a sensible object (*to prosion*).

<sup>32</sup> The necessity of *phantasia* to supply information about the sensible objects, their *pathē enhulā* as *logoi enhuloi*, is anticipated in *DA* 402<sup>b</sup>16 ff. where Aristotle calls mere formal definitions a matter of empty dialectic.

bad for me, to be pursued or avoided. The necessary condition of my thinking that something is good or bad, according to Aristotle, is that the soul shall have certain *phantasmata* (431<sup>a</sup>14–17): I have to have the image of a future good or bad (433<sup>b</sup>12; 28).

But why should not the intellect suffice for figuring out what is good or bad, and, furthermore, why is not sense-perception sufficient to establish the connection with sensible objects where they are needed? We have to remember here, once again, the narrow confinement of intellect and sense-perception to their respective objects.<sup>33</sup> The intellect by itself can only think what is non-sensible, the intelligible forms; but the intellect needs sensible images to decide whether something is desirable or not; it has to envisage concrete situations containing material objects to decide that something is worthwhile or should be avoided.<sup>34</sup> Sense-perception, on the other hand, is strictly limited to what is before the senses at the time when it is. Sense-perceptions in the wider sense (as we would say) are always already *phantasmata* for Aristotle, at least where he uses precise speech.<sup>35</sup> There can, of course, be no sense-perceptions of future goods and evils. All sensible projections are due to imagination. Such images are based on sense-perceptions and function like them, but they are not themselves sense-perceptions: 'to the rational soul images serve as perceptions' (431<sup>a</sup>14). In order to make a decision I have to create for myself the appearance of a future good, a worthwhile aim (cf. 433<sup>a</sup>14).

Unfortunately, Aristotle is not over-concerned with providing us with clear examples to clarify the meaning of the already very compressed text. He mentions one case, however, that illustrates his model: when one sees that a beacon is fire and that it moves, one realizes that it is the enemy (so far sense-perception and calculation do the job). But the soul also calculates through images and thoughts 'as if seeing' (*hōsper horōn* 431<sup>b</sup>7) and deliberates about what should happen in the future with relation to the present. The soul would not be moved towards anything if it could not envisage it under a concrete aspect. As Aristotle

<sup>33</sup> Aristotle's language is sometimes imprecise, e.g. when he speaks of 'seeing the future' (433<sup>b</sup>10); his comment that he means that the things in question are either thought or imagined shows that he was aware of the wider use of *aisthēsis*.

<sup>34</sup> *Phantasia* has to envisage that *tode toionde* (434<sup>a</sup>19) where the matter in question is not present. Cf. Aristotle's insistence on the particularity of the minor premiss in the practical syllogism (*EN* 1147<sup>a</sup>3, 1147<sup>a</sup>24). The recognition of the minor premiss is a matter of *aisthēsis* (as the faculty). Nussbaum's interpretation of *phantasia* tries as far as possible to sever the ties to 'envisaging' and to broaden *phantasia* so that it comprises all kinds of phenomena that would include 'views' in a wider sense (cf. 1978, 263, 'envisaging the good'). Her interpretation does not provide an adequate answer to the question why Aristotle assigns *phantasia* to *aisthēsis* alone and why he seems to insist that there are always sense-impressions involved. Though Nussbaum asserts that *phantasia* is just another aspect of sense-perception (pp. 234 ff., 255 ff.), she does not explain how the function of interpreting in the wider sense that she ascribes to *phantasia* (so that it 'endows the object of perception with a formal content', p. 265) can be fulfilled by a psychological process that is nothing but a secondary motion ensuing upon sense-perception.

<sup>35</sup> Sense-perception is also used in the wider sense elsewhere in Aristotle (cf. *APo.* 2. 99<sup>b</sup>35), when he is concerned with the genus of the faculties that make up experience. It is only when he is concerned with the exact analysis of the act itself that he confines himself to the narrow sense (cf. also *Sens.* 7).

at one point puts it: thinking of something terrible alone does not move us (432<sup>b</sup>29). We have to envisage the phenomenon itself to be stirred to action. My geometric mind, for example, will tell me that I can pass along any path wide enough for my two feet; yet the depiction of walking over a plank from one of the towers of the World Trade Center to the other will tell me that this is an absolute *pheukton*, a thing to avoid.

Most of the attention in the relevant chapters of *De Anima* that deal with *phantasia* is devoted to its importance for practical reason or desire. That it has an important function to fulfil here is confirmed by the fact that Aristotle even provides a subdivision to distinguish between the calculative or deliberative imagination as it functions in human decision-making, and the non-rational imagination that is shared by the animals.<sup>36</sup> Without *phantasia* the desire would be without direction, hence even primitive animals have to have imagination at least 'indefinitely'; they have to aim at something (433<sup>b</sup>31 ff.). Even a worm has to have a kind of notion of its aim in its search for food.<sup>37</sup>

Besides this important function of imagination in practical reasoning, Aristotle also concedes that *theoretical reasoning* cannot do without 'images' (431<sup>b</sup>2; 432<sup>a</sup>3 ff.). It has been mentioned earlier that, given his understanding of how learning takes place, we could never attain the essences of things without starting from their appearances. But not just learning; all thinking depends on the sensible images. For in spite of his initial insistence on a rigid dichotomy of the soul's faculties into *aisthēsis* and *nous* in accordance with its different objects (431<sup>b</sup>20–432<sup>a</sup>2), he later concedes that the intelligible objects of all thought, even in the abstract sciences, are contained in sensible objects.<sup>38</sup> He thus arrives at the general conclusion that one could not get to know them nor understand them without sense-perception (*oute mē aisthanomenos mēthen outhen an mathoi oude xunheīē*). More importantly still, one cannot even think (contemplate) without images: *hotan te theōrēi, anankē hama phantasma ti theōrein* (432<sup>a</sup>8–9). Images, which are 'like sense-perceptions except without matter' (i.e. sensible matter), provide the substrate of all thought, so that reason 'thinks the forms in the images' (431<sup>b</sup>2). It seems that Aristotle, like Kant, wants to say that we cannot think of a line without drawing one in our mind.<sup>39</sup> Even when he denies the identity of the objects of thought and the objects of imagination (432<sup>a</sup>12–14), he still insists that whenever we think of the form of something we have something like a *Gestalt* of it in mind.

<sup>36</sup> This does not imply that we all of a sudden have two separate capacities, the one based on perception, the other on reason. The *bouleutikē* or *logistikē phantasia* (433<sup>b</sup>29, 434<sup>a</sup>5–7) must supply the necessary vision that illustrates concretely what is desirable as a good for practical reason.

<sup>37</sup> *Phantasia*, thus plays a crucial role in *M.A.* Cf. 701<sup>b</sup>18: '*phantasia* and thinking have the power of the actual thing.'

<sup>38</sup> Cf. 8, 432<sup>a</sup>3–9: *ta te en apharesēi legomena kai hosa tōn aisthētōn hexeis kai pathē*. This seems to suggest that the essences of sensible things are not intelligible without observation of their dispositions (functions?). This fits well with the claim in 402<sup>b</sup>21–403<sup>a</sup>2 that *phantasia* gives us the information of the *sumbebēkota* that it is necessary to obtain for the knowledge of the essence of things.

<sup>39</sup> Cf. *Critique of Pure Reason*, B 154.

I do not want to turn Aristotle into a *Gestalt* psychologist, but his basic idea must be that the comprehension of the formal definition of material entities (and that includes those things that have only extension, as in geometry, cf. 431<sup>b</sup>12–17; 432<sup>a</sup>2–6) is not enough. The explanation must be that when, for example, one thinks of a house, it is not enough to think 'a shelter against destruction', or in the case of a circle that it is 'the common *locus* of all points having the same distance from a central point'. If we had only the formal definition we would have no way of recognizing an exemplar when we met one, since we should have no *Gestalt* that told us what they looked like. Nor could we do constructions in geometry, of course, since it depends on seeing the relevant relationships.

This would mean that the objects of imagination in Aristotle's epistemology have the function of rendering an object for knowledge when there is no direct perception. But there is more to it than that, I suspect. For sense-perception is not only confined to the moment of actual perception, it is also always narrowly limited to the *particular* object directly under inspection (417<sup>b</sup>22–8). The scientist, however, has to have not just a view of this or that leopard in front of him, spotted in this or that way; he has to form a picture of 'leopards' and, among other things, their specific spottedness before he can go into the more abstract business of his science. It seems that *phantasia* is supposed to render us that service as well, for *phantasmata* are flexible and can be enriched by repeated observations, while immediate sense-perceptions cannot.

*Phantasmata* are often depicted as inaccurate impressions. And sometimes that is all there is to them. But it is that less detailed but more general picture that we need for our generalizations; the disadvantage of inaccuracy turns then into an advantage.<sup>40</sup> The example of the sun's appearing a foot in diameter can, once again, illustrate this claim. When I reflect on the real size of the sun I do not reflect on this particular vision of the sun, I reflect on the 'overall vision' of the sun and why it must be a delusion. Thus, although the images are less vivid, and mostly less accurate and direct than sense-perceptions themselves, they not only are longer-lasting and supply us with an image when the perception is gone, but they are also more fruitful because they give us something like a standardized picture of a state of affairs in general.<sup>41</sup>

Such pictures are necessary in decision-making, where Aristotle actually mentions a kind of 'merger' of different *phantasiai* into one image that allows us to compare the relative goodness (or badness) of several possible ends (434<sup>a</sup>9). They are also necessary in science: the scientist who wonders why a stick looks bent in water does not ask himself why this stick does but why straight objects in general do. Because of the brevity of Aristotle's remarks in the discussion of *phantasia* it must remain somewhat speculative that they are supposed to perform this service for the intellect. But it seems clear that *epagōgē*, induction, could not

<sup>40</sup> Ross in Aristotle (1961a), 39 even claims that Aristotle 'In the main...does not regard it as a valuable faculty but as a disability.'

<sup>41</sup> Similarly Freudenthal (1863) ascribes to *phantasia* 'kein sinnliches Einzelbild sondern Verallgemeinerung durch Denkhätigkeit' (p. 31).



work without such *phantasiai*; there must be a 'collection' of sensory impressions that presents the mind with the phenomena that are to be explained and preserved.<sup>42</sup>

The *locus classicus* discussing the connection between the sensual and the intellectual in the formation of science, *APo.* 2. 19, does not make any mention of *phantasia*, but it is clear that the kind of *aisthēsis* that leads to memory, experience and, finally, to *nous* of the first principles really consists in *phantasiai*. Only retained perceptions (for those animals which have a *monē* of their perceptions) lead to memory and experience (99<sup>b</sup>36–100<sup>b</sup>9). That Aristotle uses *aisthēsis* here in its wider sense is clear, for he emphasizes that it is not the particular perception that leads to *empeiria* but the perception of the universal. Taken in the strict sense, sense-perceptions cannot do this (cf. *DA* 417<sup>b</sup>15); only the collected *phantasiai* of many sense-perceptions can lead to the sight of the universal feature in the particular. In *APo.* 2. 19 Aristotle may have found it too cumbersome to introduce *phantasia*, and in a way also unnecessary, since he is not interested in a detailed account of how the *aisthēmata* are gained and processed. It is sufficient to know that the basic information comes through the senses.<sup>43</sup>

The upshot of this interpretation of *phantasia* is that it plays a crucial cognitive role both in practical and in theoretical thinking in Aristotle by supplying the necessary link between the sensible and the intelligible. Such a link is necessary not only in view of the fact that most objects of science are 'enmattered' but also because of Aristotle's insight that our thinking cannot be entirely abstract but always needs a kind of *Gestalt*. This result is, of course, not new, but the reasons given here may add to the plausibility of Aristotle's conception.

A final question should here at least be addressed briefly: does the integrative function of *phantasia* permit us to ascribe to Aristotle's psychology something like a conception of the unity of consciousness that comprises both the senses and the intellect, as some commentators have assumed?<sup>44</sup> I would want to be rather cautious at this point. It is undeniable that Aristotle displays scientific optimism when he describes how the mind progresses from sense-perception to knowledge. He seems to presuppose that sufficient empirical study of particulars will result in the recognition of the relevant general features. In *APo.* 2. 19 Aristotle even

<sup>42</sup> For a review of the discussion of *epagōgē* in *APo.* 2. 19 cf. Modrak (1987a), 161 ff. Modrak, however, for reasons that are unclear, denies the need for a plurality of experiences (1987a, 175, 224 n. 44).

<sup>43</sup> Cf. *APo.* 2. 19. *Phantasia* is not mentioned there; but cf. Barnes in Aristotle (1975), 252; sense-perception and memory together bring about the '*monē*' (99<sup>b</sup>36) of impressions that is necessary for experience. The individual act of perception gives us the particular cognition (100<sup>a</sup>17); *aisthēsis* (in the wider sense) is then charged with the deliverance of the universal (*kai gar hē aisthēsis houtō to katholou empoiei* 100<sup>b</sup>4–5).

<sup>44</sup> The establishment of a full integration of rational and perceptual faculties in something approaching the modern sense of consciousness is the main contention in Modrak (1987a); see pp. 113 ff. Even if one agrees with her that Aristotle tried to avoid Platonic dualism, her attempts to downplay Aristotelian dualism too often make her gloss over difficulties; the interpretation relies on unifying metaphors as, e.g., *phantasmata* being 'vehicles for associations' (p. 139) or the '*noēton* is a representation of an occurrent *phantasma*' (p. 125). If there is a unity of consciousness in Aristotle, then one should confine it, with Kahn (cf. n. 17 above), to the inner sense.

suggests that this is only to be expected: 'And when many such things (i.e. perceptions) come about, then a difference (*diaphora*) comes about, so that some come to have an account from the retention of such things, and others do not' (100<sup>a</sup>1; cf. 87<sup>b</sup>28 ff.). Thus, it looks as if Aristotle sees a continuous progress from sense-perception to knowledge. And, indeed, what else should one expect? Since most sciences study natural material objects their form and characteristic properties can only be found in these objects themselves.

To characterize the gaining of knowledge from sense-perception Aristotle introduced the famous simile of a routed army gradually reduced to calm order; the simile suggests that from scattered impressions a sufficiently broad orderly picture of the relevant distinctions will gradually emerge that warrants the formation of general concepts necessary for *dianoia* (100<sup>a</sup>12 ff.). Does it guarantee the secure capturing of the first principles? While this is at least insinuated in *APo.* 2. 19, the relevant chs. 1 and 2 of *Metaph. A* are not so optimistic: while everybody has perceptions (*rhadion kai ouden sophon*, 982<sup>a</sup>12) so Aristotle there states—the highest knowledge, the knowledge of the reasons, is the privilege of the *sophoi*, and a most difficult thing to achieve. It does not look as if any amount of empirical knowledge through *phantasia* by itself will lead securely from the knowledge of the 'fact that' to that of the 'reason why'.<sup>45</sup>

But even apart from the question of a continuous path from what is better known to us to what is better known as such, there are indications that Aristotle himself quite consciously wanted to preserve the separation of the sensible and the intelligible, of *aisthēta* and *noēta*, in spite of the mediation by *phantasia*.<sup>46</sup> This separation would forbid us to assume anything like a unified concept of consciousness based on perception for Aristotle's psychology. The reasons cannot be fully discussed or documented here; a few reminders have to suffice. The definition of memory as well as of dreams assigns these mental events exclusively to the 'sensible' side, a fact that has often been regarded as rather curious. Though Aristotle grants that we have opinions in dreams (458<sup>b</sup>10), he attributes dreams exclusively to the *aisthētikon*, 'in so far as it is *phantastikon*' (459<sup>b</sup>8). This decision on Aristotle's part leaves the opinions that occur in dreams curiously unexplained, but it suggests that he saw a need to assign psychic phenomena either to the sensible or to the intelligible domain: no real fusion seemed conceivable to him.

The same is true for memory: memories are only revivals of *phantasiai* of past experiences. Knowledge is 'remembered' only accidentally (*Mem.* 450<sup>a</sup>12–14), i.e. we only remember when and how we first learned Pythagoras' theorem, but not the theorem itself. This is not as strange as it may sound at first, given Aristotle's presuppositions: I do not recall a past *phantasia* in the case of theoretical knowledge; the question is rather whether I still know it, that is understand it. Once again, it seems as if for Aristotle the decision to locate memory with the

<sup>45</sup> On the 'intellectual habituation' of handling first principles cf. Burnyeat (1981), 114.

<sup>46</sup> The problematic status of *nous* is discussed by Barnes (1979b), 39–41; a more integrative reading is suggested by Sorabji (1971/1979).



sensible faculties forbids him to admit also a kind of intellectual memory. This means that just as in the case of dreams, the status of beliefs embedded in sensory memories remains unaccounted for.<sup>47</sup>

If Aristotle wants to keep the two faculties separate and regards *phantasia* only as a necessary link between sensory and non-sensory mental activities, a link, however, that remains firmly confined to the sensory side, then he must have seen good reasons for doing this, for the difficulties entailed by his dualism can have hardly escaped his notice. One of his reasons must certainly have been that he did not want to accept any physical impact on the functioning of the intellect *per se*, which would be implied if there were more than an accidental connection. Furthermore, he may not have wanted to give up the link between the best part in us and the only divinity that he recognizes: the pure active mind (cf. 408<sup>b</sup>18–29; *Metaph.* 983<sup>a</sup>6–7).

The dualism that I maintain for Aristotle does not make his philosophy of mind incoherent. It imports some awkwardnesses that seem to be unavoidable for any metaphysics that distinguishes between the corporeal and the incorporeal in a strong sense, since the question of their connection and interaction necessarily arises. Aristotle must have hoped that his conception of *phantasia* would help to overcome that awkwardness.

The relationship between *phantasia* (or *aisthēsis* in the wider sense) and *nous* has recently been likened to that between matter and form.<sup>48</sup> As a metaphor this is perhaps not unacceptable since the senses do deliver the material that reason works on. The metaphor has its dangers, however, since it suggests a necessary relationship between them. In opposition, however, to matter in its usual sense, *phantasiai* can and do exist by themselves; they need not be 'informed' by thought. And, more importantly, *phantasiai* are sometimes quite recalcitrant and resist 'information'. As Aristotle asserts in *Insomn.* 458<sup>b</sup>28, 'so even when persons are in excellent health, and know the facts of the case perfectly well, the sun, nevertheless, appears to them to be a foot wide'. Thus, *phantasiai*, even though they often function as incentives for thought, as substrates of thought, and the anchor of thought in the physical world, remain phenomena in their own right.

I have largely treated *phantasia* as a unified concept in Aristotle; but is that justified, or is there not rather only a 'more or less coherent family of psychic phenomena, a loose-knit family concept?'<sup>49</sup> If one excludes the metaphoric meaning of 'phantasizing', then at least the *causal* account for all imagination is the same: all *phantasiai* are motions in the soul caused by sense-perceptions. They are sensory images or imprints that can exist independently from their original source. Their history may be quite different, depending on whether they are due to immediate awareness or have undergone a long-term storage, as may be their

function and the occasion of their occurrence in dreams, hallucinations, memory, thoughts, or decisions. Most of all, their character and value may vary: they may be clear or confused, simple or complex, true or false. In spite of this range and flexibility it seems that Aristotle's insistence on their sensory nature indicates that he regarded them, with good reasons, as a unitary phenomenon in the soul, as sensory appearances.<sup>50</sup>

<sup>50</sup> For an interpretation that reaches similar results but is much more extensive and technically refined cf. Wedin (1988). A discussion of his very rich investigations would exceed the limits of this article.

<sup>47</sup> Esp. in *Insomn.* the difficulty is obvious since Aristotle distinguishes between opinions that are part of dreams and opinions we have in sleep besides the dreams (458<sup>b</sup>15). Nevertheless he defines dreams as *phantasmata* in sleep (459<sup>a</sup>19).

<sup>48</sup> Cf. Modrak (1987a), 123–4, 215 n. 29.

<sup>49</sup> Cf. Schofield (1979), 108; 110. ch. 14, pp. 253, 256.