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# ARISTOTLE'S 'COMMON SENSE' IN THE DOXOGRAPHIC TRADITION

PAVEL GREGORIC

## 1. Introduction

THE notion of a common sense, a perceptual capacity which monitors and co-ordinates the five senses, was one of Aristotle's remarkable theoretical inventions. It allowed him to explain a number of cognitive operations directed at the particular senses, and to do so in a convincing way without introducing reason, which was rather helpful for someone who fully appreciated the intelligence of non-human animals and yet who was unwilling to attribute reason to them. The explanatory power of this notion seems to have been recognized by late antiquity and it was sufficiently independent of the Aristotelian framework to be utilized by thinkers as diverse as Plotinus, Augustine, Avicenna, Aquinas, and Descartes.

The problem with Aristotle's notion of the common sense, however, is that it does not receive a clear statement or a sustained treatment in any of his surviving works. Worse still, any interpretation of the notion has to be based on a relatively small number of passages which yield a picture of uncertain coherence. Roughly speaking, one group of passages informs us that the perceptual capacity of the soul can operate not only as this or that special sense but also as a unity, whereby it discharges some higher perceptual operations. For example, Aristotle speaks of a 'common power accompanying

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This paper is based on a chapter of my doctoral dissertation, supervised by Michael Frede and defended in 2003, which was omitted from my monograph *Aristotle on the Common Sense [Common Sense]* (Oxford, 2007). I am pleased to contribute to this volume a piece that evolved from material which Michael oversaw with his characteristic diligence and acumen. I am also grateful to my examiners, David Sedley and David Charles, for their comments on that chapter of the dissertation, as well as to István Bodnár and Peter Lautner, who read earlier drafts of this paper and made valuable suggestions.

all the senses' (*κοινή δύναμις ἀκολουθοῦσα πάσαις*, *De somno* 2, 455<sup>a</sup>16) by which we perceive that we are seeing and hearing, and discriminate between colours and sounds. So, apart from the special senses, each being a power to perceive one kind of special sensible, Aristotle posits a perceptual power of a different type and order.

The other group includes a notable passage which states that 'an image is an affection of the common sense' (*τὸ φάντασμα τῆς κοινῆς αἰσθήσεως πάθος ἐστίν*, *Mem.* 1, 450<sup>a</sup>10), and a few other passages which can be interpreted as implying that the common sense includes imagination. As is well known, imagination marks a further expansion of non-rational cognitive abilities, as it puts an animal in contact with things beyond those that are available through the senses at any given time. Under certain conditions, imagination makes memory possible, since Aristotle defines memory as the ability to experience images as representations of things encountered in the past. Memory in turn enables an animal to draw on its past experiences in dealing with present situations, thus improving its responses significantly. Repeated exercise of memory with respect to the same thing may in turn give rise to a further cognitive disposition that Aristotle calls 'experience' (*ἐμπειρία*), a bit of which he is prepared to attribute to non-human animals.<sup>1</sup> So an animal endowed with a soul that comprises imagination and memory has sufficiently powerful cognitive resources to behave intelligently.

Given that the relevant passages are few, scattered, and divergent, it is hardly surprising that there is little agreement among interpreters about the scope of Aristotle's notion of the common sense. Nevertheless, we can discern two general lines of interpretation. One is to assume that both groups of passages speak about the same thing and hence that the common sense is in charge of the higher perceptual operations as well as operations that involve images. The problem with this inflationary line of interpretation is that it has to explain how such a diversity of operations can consistently be assigned to a single capacity. The other strategy is to focus on the first group of passages and propose that the common sense is a capacity in charge of the higher perceptual operations only, having little or nothing to do with imagination. The problem with this deflationary line of interpretation, on the other hand, is that it has to give a plausible account of the second group of passages, including those that explicitly mention the common sense. Despite their

<sup>1</sup> Cf. *Metaph. A* 1, 980<sup>a</sup>27–981<sup>a</sup>1, and n. 17 below.

problems, both lines of interpretation have their merits and they have both found supporters in ancient and modern times.<sup>2</sup>

Some of the earliest testimonies to the reception of Aristotle's notion of the common sense, and certainly the earliest evidence for the inflationary line of interpretation that prevails in modern times, are found in the doxographic tradition. In this paper I would like to analyse and elucidate the relevant doxographic entries, investigate their likely textual and doctrinal sources, and draw some conclusions.

The doxographic accounts to be examined are preserved as five distinct entries in Stobaeus' *Anthology*, compiled during the fifth century AD. Two of these (Stob. 1. 51. 2–3 Wachsmuth) are found almost verbatim in the *Placita* of pseudo-Plutarch (900 A 1–8 Lachenaud), dating from the late second century AD. This is just one in a long series of correspondences between the two works, which suggests that they had a common source. In his *Doxographi Graeci* Hermann Diels offered plausible arguments for identifying this common source as the *Placita* of Aëtius. The only source of our knowledge of Aëtius and his text is Theodoret, bishop of Cyrrhus in northern Syria from 423 to c.450 AD, who mentions Aëtius three times in his *Graecarum affectionum curatio*. If the entries from pseudo-Plutarch and Stobaeus indeed come from Aëtius' *Placita*, as Diels supposed, the work can be dated around AD 150. Because the two aforementioned entries relevant for the present study are found both in Stobaeus and in pseudo-Plutarch, Diels naturally included them in his reconstruction of Aëtius' *Placita*. There are two other relevant entries that Diels ascribed to the *Placita* of Aëtius, although they are found only in Stobaeus (1. 50. 5–6). The basis of Diels's ascription is that the style and content of these two entries is typical of the majority of entries found in both pseudo-Plutarch and Stobaeus.

The remaining entry to be examined here is also found only in Stobaeus (1. 51. 5). However, it is significantly different in style, which suggests that it comes from a different source. Diels argued that this source was a work by Arius Didymus called *Epitome*, or *Compendium of Philosophical Doctrines*, which contained an account of the Peripatetic, Platonic, Stoic, and Epicurean schools, each ar-

<sup>2</sup> Both groups of passages are carefully examined in my monograph, where I pursue a deflationary line of interpretation.

ranged under the three main headings of logic, physics, and ethics. It is a summary of philosophical doctrines and views compiled from a variety of sources, including other compendiums and handbooks which were available at the time. Diels dated the *Epitome* to the first century BC, based on his identification of its author with Arius, the Stoic philosopher born in Alexandria in the first century BC and associated with the Roman emperor Augustus.<sup>3</sup> Some scholars have disputed this identification, opening the possibility of a considerably later date for the *Epitome*.<sup>4</sup> In any case, recent examination of Diels's work by Mansfeld and Runia has shown that his assumptions about the two main sources of Stobaeus are correct, and that the criteria he introduced to distinguish them are for the most part well founded.

## 2. Arius Didymus

The only relevant doxographic account ascribed to the *Epitome* of Arius Didymus is preserved in Stobaeus' *Anthology* under the heading 'How many senses are there, and what is the essence and activity of each?'. I give the Greek text and a translation:

Ἀριστοτέλους. τὸ δὲ αἰσθητικόν, ὃ δὴ κοινῶς ἀπάντων τῶν ζώων ἴδιον, αἰσθήσει γὰρ διαφέρει τὸ ζῶον τοῦ φυτοῦ, πενταπλοῦν ἕοικέναι. τοῦτο γὰρ τὸ μὲν ὄρασις, τὸ δ' ἀκοήν, τὸ δ' ὄσφρησις, τὸ δὲ γεύσις, τὸ δ' ἀφήν. ὑπάρχει δέ τινα καὶ σύνθετον αἰσθησίν, ἐν ἧ τὸ τε φανταστικὸν πᾶν γίγνεσθαι καὶ (τὸ) μνημονευτικὸν καὶ τὸ δοξαστικόν, ὅπερ οὐδ' ἄμοιρον τοῦ νοῦ τυγχάνειν. αἰσθάνεσθαι δ' ἡμᾶς παθούσης τι τῆς αἰσθήσεως. (Arius Didymus, *Epitome* fr. 15, 455. 31–456. 4 Diels=Stob. 1. 51. 5 Wachsmuth)

Aristotle's [views]. The perceptual capacity, which is distinctive of all animals alike (for animal differs from plant by perception), seems to be five-fold. Namely, it is partly vision, partly hearing, partly smell, partly taste, and partly touch. There is also some composite sense in which the whole

<sup>3</sup> H. Diels (ed.), *Doxographi Graeci* (Berlin, 1879), 69–88; cf. C. H. Kahn, 'Arius as a Doxographer' ['Arius'], in W. W. Fortenbaugh (ed.), *On Stoic and Peripatetic Ethics: The Work of Arius Didymus* (Boston, 1983), 3–13; J. Mansfeld and D. T. Runia, *Aëtiana: The Method and Intellectual Context of a Doxographer* (Leiden, 1996), 238–65.

<sup>4</sup> e.g. T. Göransson, *Albinus, Alcinous, Arius Didymus* (Göteborg, 1995), 202–26, and M. Baltes, 'Muß die "Landkarte des Mittelplatonismus" neu gezeichnet werden?', *Göttingische gelehrte Anzeiger*, 248 (1996), 91–111 at 107–8, repr. in id., *Dianoemata: Kleine Schriften zu Platon und zum Platonismus* (Stuttgart and Leipzig, 1999), 327–51.

imaginative capacity comes to be, the capacity to remember, and the capacity to form beliefs, which is therefore not dissociated from the intellect, either. And we perceive when the sense undergoes something.

The first sentence of Arius' entry deals with the perceptual capacity of the soul, and what is said about it follows from Aristotle's definition of animal with reference to perception.<sup>5</sup> If to be an animal is to be capable of perceiving—and in Aristotle's theory something is capable of perceiving by virtue of having a soul with a perceptual capacity—then it necessarily follows, first, that *only* animals have the perceptual capacity, and second, that *all* animals have the perceptual capacity. The corollary that animals are differentiated from plants by perception is also familiar from Aristotle,<sup>6</sup> and the motivation for bringing it up here might be to note Aristotle's disagreement from Plato on this point.<sup>7</sup>

The statement that the perceptual capacity of the soul is fivefold, namely that it is differentiated into the five special senses, is also true to Aristotle's theory: in so far as the perceptual capacity takes on colours it is sight, in so far as it takes on sounds it is hearing, etc. However, in Aristotle's theory the perceptual capacity is also a unity, on account of which it accomplishes higher perceptual functions, such as perceiving that we are seeing and hearing or discriminating between colours and sounds.<sup>8</sup> Arius does not mention the unity of the perceptual capacity of the soul or any of the higher strictly perceptual functions, but instead introduces a 'composite sense' (*σύνθετος αἴσθησις*).

Although it is hard to say with certainty what this composite sense is, we may reasonably suppose that it is a composite of the special senses enumerated in the preceding sentence, something that emerges from the complexity of the perceptual capacity of the soul. If that is what the composite sense is, it is a fair expression of the Aristotelian common sense, on any interpretation. What is then said about it in the third sentence, however, takes the inflationary line of interpretation to an extreme. But before I say more about the cognitive capacities which are said to arise in the composite sense, I should like to make a digression.

The notion of a composite sense has an interesting parallel in the other two doxographic entries to be examined below (Aët. *Plac.* 4.

<sup>5</sup> *PA* 2. 8, 653<sup>b</sup>22–3; 3. 4, 666<sup>a</sup>34; *GA* 2. 3, 736<sup>a</sup>30–1; *NE* 9. 9, 1170<sup>a</sup>16.

<sup>6</sup> *DA* 2. 2, 413<sup>b</sup>1–4; *De sensu* 1, 436<sup>b</sup>10–12; *De somno* 1, 454<sup>b</sup>23–5; *GA* 2. 5, 741<sup>a</sup>9.

<sup>7</sup> See *Tim.* 77 A 3–C 5.

<sup>8</sup> *De sensu* 7, 449<sup>a</sup>2–20; *DA* 3. 2, 427<sup>a</sup>9–14.

8. 6 and 4. 10. 2 Diels=Stob. 1. 50. 5 and 1. 51. 3 Wachsmuth). In these two entries the common sense is said to discriminate ‘composite forms’ (σύνθετα εἶδη). It is difficult to ascertain what the composite forms are and what their discrimination amounts to, but two possibilities suggest themselves. On the one hand, we can take composite forms to be combinations of several special sensibles coinciding in the same physical object, be they of the same kind (e.g. shades of red and green on the surface of an apple) or of different kinds (e.g. an apple’s green colour and sweet flavour). If that is what composite forms are, the claim that a composite sense discriminates composite forms corresponds to Aristotle’s view that two or more special sensibles are discriminated from each other by the perceptual capacity of the soul operating as a unity.<sup>9</sup> To put it very briefly, Aristotle’s theory of perception commits him to the view that the perceptual capacity of the soul has to operate as a unity, in addition to operating as this or that special sense, in order to enable us to perceive two or more special sensibles at the same time and to discriminate among them. Thus ‘discrimination of composite forms’ can be interpreted as perception and differentiation of two or more special sensibles by the common sense.

On the other hand, we can take a composite form to be a combination of sensible qualities characteristic of a physical object whereby we perceive or recognize that object. For example, we perceive Socrates when we perceive a complex of patches of colours distinctive of Socrates’ countenance.<sup>10</sup> If that is what a composite form is, the claim that a composite sense discriminates composite forms seems to be something that roughly corresponds to the perception of accidental sensibles in Aristotle’s theory, or at any rate to the perception of the paradigmatic accidental sensibles, namely physical objects.

It is interesting to observe, moreover, that the two entries from Aëtius mentioning composite forms also speak of the special senses as ‘simple’ (ἀπλάτ), and the ‘simple senses’ are naturally contrasted with a ‘composite sense’. So the talk of a composite sense and of composite forms in different entries in Stobaeus may not be a coincidence. Perhaps some philosophers in antiquity developed the view that the simple senses deal with simple forms (that is, the spe-

<sup>9</sup> See *De sensu* 7, 449<sup>a</sup>5–20; *DA* 3. 2, 426<sup>b</sup>8–427<sup>a</sup>14 and 3. 7, 431<sup>a</sup>20–<sup>b</sup>1.

<sup>10</sup> Here one might recall the part of Plato’s defence of the Protagorean theory in the *Theaetetus* (156 c–157 c) in which he argues that physical objects are ‘aggregates’ of sensible qualities; cf. Alcinous, *Didask.* 4. 7.



cial senses perceive their respective special sensibles), and the composite sense deals with composite forms (that is, the common sense perceives accidental sensibles or physical objects). Some such view can be found, for instance, in Alcinous, who argues that the primary sort of sense-perception is of primary sensibles, such as colours, whereas the secondary sort of sense-perception is of secondary sensibles, such as coloured objects (*Didask.* 4. 7). It is possible that the entries ascribed to Arius and Aëtius contain a fragmented record of such a view.

To return to the third sentence from the entry ascribed to Arius. It tells us that three other cognitive capacities come to be in the composite sense, namely the capacity of imagination (*to phantastikon*), the capacity which enables one to remember (*to mnēmoneutikon*), i.e. memory, and the capacity which enables one to form beliefs (*to doxastikon*). The idea that perceptions leave traces or images, thus giving rise to the capacity of imagination, and that these images can be stored and retrieved, thus giving rise to memory, is familiar from Aristotle. More to the point, the claim that imagination comes to be in the composite sense seems to echo Aristotle's remark in *Mem.* 1, 450<sup>a</sup>10, that 'an image is an affection of the common sense'. In the same chapter Aristotle defines memory as the ability to have images as representations of things experienced in the past, whereby he closely associates imagination and memory. Indeed, he explicitly states that they belong to the same capacity of the soul.<sup>11</sup> So if imagination is assigned to the composite sense, memory must be assigned to it too.

The restriction of the *whole* capacity of imagination (*to phantastikon pan*) to the composite sense may also be found in the same chunk of *Mem.* 1, where Aristotle is concerned to show that imagination, although necessary for thinking, properly belongs to what he calls 'the primary perceptual capacity' (identified with the common sense), and only accidentally to the thinking capacity of the soul; otherwise, Aristotle would not be able to ascribe memory to non-rational animals. Arius again insists on dissociating imagination from the thinking capacity in another entry attributed to him, in which he reports Aristotle's views on imagination (fr. 16 Diels = Stob. 1. 58. 1 Wachsmuth); there it is stated that imagination extends to all the senses and rational motions (i.e. thoughts), although the latter are called imaginations only homonymously.

<sup>11</sup> *Mem.* 1, 450<sup>a</sup>22–3, 451<sup>a</sup>14–17.

With the introduction of the capacity to form beliefs (*doxastikon*), however, Arius breaks away definitively from Aristotle's notion of the common sense, on any interpretation of that notion. According to Aristotle, belief belongs to the thinking capacity of the soul, since belief implies conviction, and conviction is closely connected with reason and language (*logos*).<sup>12</sup> The most plausible way of explaining Arius' move is to assume that he, or his source, was under the influence of Plato and his followers. It is well known that Plato closely associated *doxa* with perception. He argued that sensible things, subject to destruction and change, cannot be objects of knowledge, but only of perception and *doxa*. Moreover, in the *Philebus* (39 A) Plato claims that *doxa* comes about when we match current perceptions with our memories, and some Middle Platonists seem to have pursued that view. For instance, Alcinous elaborates on this idea and actually defines *doxa* as 'the combination of memory and perception'.<sup>13</sup> So, if one understands *doxa* as a capacity crucially involved in perceptual recognition of physical objects,<sup>14</sup> one might be inclined to ascribe *doxa* to the common sense—provided that one takes the Aristotelian common sense to be in charge of the perception of accidental sensibles. There are passages in Aristotle which can and have been interpreted to that effect,<sup>15</sup> so that a compiler of philosophical doctrines with Platonic sympathies, be it Arius himself or his source, could easily be led to add the *doxastikon* to the list of cognitive capacities that arise in the common sense. Although in the hands of a Platonist this addition would count as downgrading of *doxa* by pulling it away from the intellect, in the hands of a compiler it can serve to support the Aristotelian upgrading of perception as the ultimate basis for the development of the intellect.<sup>16</sup>

The last clause of the third sentence of Arius' entry is concerned to affirm a connection between perception and intellect. This con-

<sup>12</sup> *DA* 3. 3, 428<sup>a</sup>19–24. Some editors, including Biehl and Ross, follow Torstrik in bracketing the sentence at 428<sup>a</sup>22–4 which connects conviction with *logos*; cf. Hicks's comment ad loc.

<sup>13</sup> *Didask.* 4. 7; cf. Plut. *An. proc.* 1024 F–1025 A and *Epit.* 1032 D–E.

<sup>14</sup> Proclus seems to espouse such a view of *doxa* in his commentary on Plato's *Timaeus*; cf. P. Lautner, 'The Distinction between *φαντασία* and *δόξα* in Proclus' *In Timaeum*', *Classical Quarterly*, NS 52 (2002), 257–69.

<sup>15</sup> *DA* 3. 2, 425<sup>a</sup>14–<sup>b</sup>1; *De sensu* 7, 449<sup>a</sup>5–20; cf. W. D. Ross (ed.), *Aristotle: De anima* (Oxford, 1961), 34–5; S. Cashdollar, 'Aristotle's Account of Incidental Perception', *Phronesis*, 18 (1973), 156–75 at 170.

<sup>16</sup> I owe this formulation to James Allen.

cern seems to have good grounds in Aristotle's theory. Contrary to Plato, who thinks that we are born with an intellect and knowledge of Forms, Aristotle is committed to the view that we need to develop it and that its development rests on perception. Roughly speaking, sufficiently powerful perception combined with memory yields experience, and sufficiently powerful experience yields knowledge of forms or explanatory universals which is the province of intellect.<sup>17</sup> So Arius' remark in the last clause of the third sentence does not seem to be at all superfluous or misplaced. Because the composite sense comprises imagination, memory, and *doxa*, it is connected with intellect at least in this sense, namely that it provides a cognitive machinery sufficient for the development and exercise of higher rational capacities.<sup>18</sup> This is a point well worth making in a summary of Aristotle's views on the perceptual capacity of the soul.

The fourth and last sentence states that perception is passive. This is indeed Aristotle's view, although Arius makes no reference to the significant ways in which Aristotle qualifies that view in *De anima* 2. 5. What is more striking about this sentence is that it seems rather disconnected from the previous ones. The point of tucking it in at the end of the entry, I would suggest, is to align Aristotle with Plato, who insists that perception is a passive process.<sup>19</sup>

To sum up, the examined entry contains a fairly accurate, albeit incomplete account of the perceptual capacity of the soul. What it fails to bring out is the unity of the perceptual capacity and the higher perceptual operations it achieves on account of its unity. True, Arius mentions a 'composite sense', which seems to be the common sense interpreted along inflationary lines. What he says about the composite sense thus understood can find some support in Aristotle, with the glaring exception of assigning the capacity to

<sup>17</sup> This is intellect in a broader sense operative in arts and sciences. In a narrow sense, intellect is restricted to grasping only the highest explanatory universals, or the first principles, in a domain. For a fuller story of the development of intellect from perception, see M. Frede, 'Aristotle's Rationalism', in id. and G. Striker (eds.), *Rationality in Greek Thought* (Oxford, 1996), 157–73, and P. Gregoric and F. Grgic, 'Aristotle's Notion of Experience', *Archiv für Geschichte der Philosophie*, 88 (2006), 1–30.

<sup>18</sup> A slight problem with the remark in the last clause is that the relative pronoun ὅπερ does not agree in gender with σύνθετον αἰσθησῶν in the main clause. Construing ὅπερ with reference to the immediately preceding δοξαστικόν, however, renders the inferential particle ὅν rather pointless.

<sup>19</sup> e.g. *Tim.* 43 B–C, 61 C ff.; *Theaet.* 184 B–186 E; cf. M. Frede, 'Observations on Perception in Plato's Later Dialogues', in id., *Essays on Ancient Philosophy* (New York, 1987), 3–8.

form beliefs to it, which is best explained with reference to Platonic influence. This influence is also discernible in several other parts of Arius' entry, most of which seem to be motivated by tacit comparison of Aristotle's views with Plato's.<sup>20</sup>

### 3. Aëtius

Doxographic entries attributed to Arius Didymus are more developed, descriptive, and flowing, which is what we would expect from excerpts that come from a handbook such as the *Epitome*. Entries attributed to Aëtius, by contrast, are more condensed, assertive, and juxtapositional, which indicates that the *Placita* of Aëtius represents an altogether different enterprise. The *Placita* was structured by topics, not by philosophical schools. It listed opinions of diverse philosophers on specific, well-defined subjects, and probably made extensive use of earlier compendia and handbooks.

I start with an analysis of two shorter, grammatically connected entries which are found both in pseudo-Plutarch and in Stobaeus. In pseudo-Plutarch's *Placita* these are the first two entries under the heading 'How many senses are there?'. In Stobaeus' *Anthology* they are placed as the second and third entries under the heading 'How many senses are there, and what is the essence and activity of each?'.<sup>21</sup>

οἱ Στωικοὶ πέντε τὰς εἰδικὰς αἰσθήσεις, ὄρασιν ἀκοὴν ὄσφρησιν γεύσιν ἀφήν.

Ἀριστοτέλης ἔκτην μὲν οὐ λέγει, κοινὴν δ' αἴσθησιν (τὴν) τῶν συνθέτων εἰδῶν κριτικὴν, εἰς ἣν πᾶσαι συμβάλλουσιν αἱ ἀπλαῖ τὰς ἰδίας ἐκάστη φαντασίας· ἐν ἧ τὸ μεταβατικὸν ἀφ' ἑτέρου πρὸς ἕτερον, οἰονεὶ σχήματος καὶ κινήσεως. (Aët. *Plac.* 4. 10. 1–2, 399. 3–12 Diels=ps.-Plut. *Plac.* 900 A 1–8 Lachenaud=Stob. 1. 51. 2–3 Wachsmuth)

The Stoics [say] that there are five specific senses: sight, hearing, smell, taste, touch.

Aristotle does not posit a sixth one, but a common sense which discriminates composite forms; to which all simple [senses] contribute each its own

<sup>20</sup> Arius' Platonic sympathies are discernible also in the fragments of his survey of ethical doctrines, gathered under the title *De philosophorum sectis*. 'The dominant coloring [of this work] is Platonic or Academic throughout' (Kahn, 'Arius', 9).

<sup>21</sup> Observe that in Wachsmuth's edition of Stobaeus' *Anthology* these two entries are separated from the previously analysed one from Arius by one intervening entry, which cites the view of Democritus that there are more than five senses in non-rational animals, wise men, and gods (Stob. 1. 51. 4=Democritus A 116 DK).

special impressions; in which [viz. the common sense] the capacity to pass from one thing to another [is found], as with shape and change.

These two entries obviously go together. The second seems to imply that Aristotle agrees with the Stoics that there are five special senses,<sup>22</sup> adding one further thing. This further thing is not a sixth special sense, as pointed out in agreement with Aristotle's discussion in *DA* 3. 1, 424<sup>b</sup>22–425<sup>a</sup>13, but a common sense. The common sense is said to discriminate composite forms, which is a summary, as I have argued, either of Aristotle's discussions of discrimination of two or more special sensibles, or of a theory of perception of physical objects, which largely correspond to Aristotle's accidental sensibles.

Next, we learn that the simple senses contribute their specific impressions to the common sense. Presumably this means that the five special senses pass their reports concerning their corresponding special sensibles to a single terminus, the common sense. There are several passages in which Aristotle says something to that effect.<sup>23</sup> What is striking here, however, is that Aëtius seems to employ the Stoic terminology of 'impressions' (*phantasiai*) to express this idea.

The next thing we learn about the common sense is that it has something to do with apprehension of features such as shape and change. Shape and change are two types of Aristotelian common sensibles, and they do not seem to be randomly chosen examples, for shape and change are among the most salient types of common sensibles. Aristotle lists common sensibles seven times in his extant works.<sup>24</sup> Apart from magnitude, which is the only type that appears in all the lists, shape and change appear in six of them, whereas the remaining types are mentioned less frequently.<sup>25</sup> More to the point, in *DA* 3. 1, 425<sup>a</sup>27, Aristotle says that for the common sensibles we have an *aisthēsis koinē*, which has often been interpreted as saying that the common sensibles are perceived by the common sense. Although there are textual as well as philosophical grounds for doubting this interpretation, one can see why many commen-

<sup>22</sup> Although Aristotle would not use the word *ὄρασις* for the sense of vision, but *ὄψις*; cf. *DA* 2. 1, 413<sup>a</sup>1; 3. 2, 426<sup>a</sup>13; 3. 3, 428<sup>a</sup>6.

<sup>23</sup> e.g. *De somno* 2, 455<sup>a</sup>33–<sup>b</sup>2; *De insomn.* 3, 461<sup>a</sup>25–<sup>b</sup>7; *De iuv.* 3, 469<sup>a</sup>10–16.

<sup>24</sup> *DA* 2. 6, 418<sup>a</sup>17–18; 3. 1, 425<sup>a</sup>16, <sup>b</sup>6; 3. 3, 428<sup>b</sup>22; *De sensu* 1, 437<sup>a</sup>9; 4, 442<sup>b</sup>5–7; *De insomn.* 1, 458<sup>b</sup>5.

<sup>25</sup> 'Shape' is omitted in *De insomn.* 1, 458<sup>b</sup>5, 'change' in *De sensu* 4, 442<sup>b</sup>5–7. 'Number' appears in three lists (*DA* 2. 6, 418<sup>a</sup>17–18; 3. 1, 425<sup>a</sup>16 and <sup>b</sup>6), whereas 'rest' and 'one' appear only in the most extensive list (*DA* 3. 1, 425<sup>a</sup>16).

tators, including Alexander of Aphrodisias, should be drawn to it. One reason is that Aristotle seems to claim at 425<sup>a</sup>15 that the special senses perceive the common sensibles accidentally (*κατὰ συμβεβηκός*).<sup>26</sup> This can be taken to mean that the special senses really perceive only their corresponding special sensibles, so that a higher-order perceptual power is needed to isolate the common sensibles from the reports of the special senses.<sup>27</sup> This view is captured in the last sentence of the second entry in Aëtius, for it clearly attributes the capacity to apprehend features such as shape and change to the common sense. While the main point of that sentence is clear, the way it is formulated merits special attention. The phrase *τὸ μεταβατικὸν ἀφ' ἑτέρου πρὸς ἕτερον*, which I have translated as 'the capacity to pass from one thing to another', is distinctly non-Aristotelian and obscure. I suppose that the capacity to pass from one thing to another involves some sort of transition, possibly inferential, from one thing to another. However, when we pass from shape, for instance, what do we pass to? I shall argue that we pass from a visually apprehended shape to a tactually apprehended shape. Or, to use a clue from the corresponding part of the entry to be discussed next,<sup>28</sup> we make an inference from the shape we see to the shape of the physical object itself. Of course, this implies that the shape we apprehend visually is not identical with the shape of the physical object itself, which is another non-Aristotelian element in this story. This is because Aëtius' entry is contaminated with Epicurean ideas, or so I shall argue.<sup>29</sup>

We know that the Epicureans took more than a passing interest in the Aristotelian notion of the common sensible, and it is not difficult to see why. They maintained that all sensations are true. A sensation, they argued, can be refuted neither by reason nor by a

<sup>26</sup> This is not really Aristotle's claim, as many ancient and modern commentators have observed, but a part of the hypothesis which he rejects; cf. J. Owens, 'Aristotle on Common Sensibles and Incidental Perception', *Phoenix*, 36 (1982), 215–36 at 219–26, 235–6.

<sup>27</sup> See Alex. Aphr. *DA* 65. 10–21 Bruns. I argue against this interpretation in *Common Sense*, 69–82.

<sup>28</sup> There the words *σχήματος καὶ κινήσεως* are followed by *σώματος*. This addition, I take it, specifies that the shape and change at issue are shape and change of *the body*. The relevance of this specification will become clear shortly.

<sup>29</sup> In the following paragraphs I am indebted to D. Sedley, 'Epicurus on the Common Sensibles' ['Common Sensibles'], in P. Huby and G. Neal (eds.), *The Criterion of Truth* (Liverpool, 1989), 123–36, and A. Monet, 'Philodème et Aristote sur les sensibles communs' ['Sensibles communs'], in G. Giannantoni and M. Gigante (eds.), *Epicureismo greco e romano*, ii (Milan, 1996), 735–48.

sensation delivered by the same sense, nor again by a sensation delivered by another sense. A sensation delivered by one sense cannot be refuted by a sensation delivered by another sense because 'they are not discriminative of the same things'.<sup>30</sup> In other words, each sense has a separate sphere of discrimination. Now the Aristotelian notion of the common sensible is an obvious counter-example, since each type of the common sensible seems to constitute a sphere of discrimination common to two or more senses; one and the same shape, for instance, is perceived by sight and by touch. To defuse this counter-example, the Epicurean has to do two things. First, he has to show that the shape perceived by sight and the shape perceived by touch are *not* one and the same thing. Second, he has to explain the origin of the widespread belief that they are the same. This is exactly what we find in the Herculaneum papyrus 19/698, attributed to the Epicurean philosopher Philodemus of Gadara (first century BC).

Philodemus argues that sight does not perceive 'magnitude and shape of the body' (col. 20 Monet=17 Scott), for the visible shape 'is nothing other than the external positioning of colours', and visible magnitude nothing other than 'the continuous positioning of a plurality of colours' (col. 21 Monet=18 Scott). In other words, the shape that we see is the arrangement of colours which marks them off from the background, whereas the magnitude that we see is the arrangement of colours which forms a continuum. The tactile magnitude and shape, on the other hand, are perceived by touch upon perceiving its special object, namely the body. So, strictly speaking, the visible shape and magnitude on the one hand, and the tangible shape and magnitude on the other, are not identical. This means that in reality there are no common sensibles.

However, Philodemus says that visible shape and magnitude are related to colour in the same way as tangible shape and magnitude are related to body, and in virtue of that analogy we can speak of the 'common spheres of discrimination' (*κοινὰ κρίματα*). So shape, for instance, is not a common sensible in the strict sense that one and the same token shape can be perceived by sight and touch, but in the looser sense that we can figure out the token shape of the body from the token shape of the colour on the basis of analogy. This transition from one domain to another, based on some analogy or similarity,

<sup>30</sup> D.L. 10. 32; cf. Lucr. 4. 480–99; Philod. *De sensu* col. 20 Monet=17 Scott.

the Epicureans call *metabasis*.<sup>31</sup> At least in those cases in which the transition is made from one object of perception to another object of perception (ἀπὸ αἰσθητῶν ἐπ' αἰσθητὰ μετάβασις), it is distinguished from rational thought and inference strictly speaking.<sup>32</sup> So the point I wish to make is that this non-rational capacity for figuring out, for instance, the tangible shape of the body from the visible shape that accompanies colours is called τὸ μεταβατικὸν ἀφ' ἑτέρου πρὸς ἕτερον in the last sentence of the second entry from Aëtius.

If that is correct, we find two distinct interpretative layers in that sentence. First, there is an interpretation of Aristotle's argument in *De anima* 3. 1 to the effect that the common sensibles are perceived by the common sense. Second, there is an Epicurean reinterpretation of the Aristotelian notion of the common sensibles and the consequent reinterpretation of the way they are apprehended. That is how we end up with the view, ascribed to Aristotle in Aëtius' report, that the common sense comprises 'the capacity to pass from one thing to another', i.e. a non-rational capacity for figuring out features that accompany the special sensibles of one sense from analogous features that accompany the special sensibles of another sense.

Let us summarize the examination of the two entries ascribed to Aëtius before we move on. Following the first entry in which the five senses are listed, the first part of the second entry correctly claims that Aristotle does not posit a sixth special sense, but a common sense. The remainder of the second entry reports that the special senses deliver their reports to the common sense, which has two functions: discrimination of composite forms and the apprehension of features such as shape and change (the *common* sensibles—strictly speaking for Aristotle, and loosely speaking for the Epicureans). All of this finds some support in Aristotle, largely in *De anima* 3. 1–2.

Let us now turn to the last two doxographic entries relevant for our study, recorded by Stobaeus under the heading 'On the senses, objects of perception, and whether perceptions are true':

Ἀριστοτέλης τὴν αἴσθησιν ἑτεροίωσιν αἰσθητοῦ καὶ μεσότητα. κοινὴν δὲ αἴσθησιν τὴν τῶν συνθέτων εἰδῶν κριτικὴν, εἰς ἣν πᾶσαι συμβάλλουσιν αἱ ἀπλαῖ τὰς ἰδίας ἐκάστη φαντασίας, ἐν ἣ τὸ μεταβατικὸν ἀφ' ἑτέρου εἰς ἕτερον οἶον σχήμα-

<sup>31</sup> See Epicurus' *Ad Hdt.* 56, 58–9, and passim in Philodemus' *De signis*.

<sup>32</sup> See Philod. *De signis* col. 37 De Lacy; cf. Monet, 'Sensibles communs', 741–2 n. 20.



τος καὶ κινήσεως σώματος, ἐν μεθορίῳ τοῦ λογικοῦ καὶ τοῦ ἀλόγου, μνήμης καὶ νοῦ μετέχουσα, διατείνουσα καὶ ἐπὶ τὰ ἄλογα τῶν ζώων, καθὸ ποσὴν διανοίας ἀναλογίαν ἔχει· κοινὰ δ' ἐστὶν ὄψεως μὲν καὶ ἀφῆς σχῆμα, ὄψεως δὲ καὶ ἀκοῆς διάστημα, πασῶν δὲ κινήσεις καὶ μέγεθος καὶ ἀριθμὸς.

οἱ Στωικοὶ τήνδε τὴν κοινὴν αἴσθησιν ἐντὸς ἀφῆν προσαγορεύουσι, καθ' ἣν καὶ ἡμῶν αὐτῶν ἀντιλαμβανόμεθα. (Aët. *Plac.* 4. 8. 6–7, 395. 1–19 Diels=Stob. 1. 50. 5–6 Wachsmuth)

Aristotle [says] that *aisthēsis* is alteration of the sensible object and a mean. The common sense is the sense which discriminates composite forms; to which all simple [senses] contribute each its own special impressions; in which the capacity to pass from one thing to another [is found], as with shape and change of the body; which is on the borderline between the rational and the non-rational, given that it partakes of memory and intellect [and] extends also to non-rational animals, whereby it has some degree of analogy with thought. And common to vision and touch is shape, to vision and hearing is distance, and to all [the senses] are change, magnitude, and number.

The Stoics call this common sense 'internal touch', by which we are also aware of ourselves.

In the first sentence of the longer entry we find an exceedingly dense general characterization of *aisthēsis*. The only way to make sense of it is to assume that the author provides two definitions of the term: one of *aisthēsis* in actuality (the activity of perceiving), the other of *aisthēsis* in potentiality (the capacity to perceive or sense). If we accept this suggestion and take the first part to refer to the activity of perceiving, we must extend the principle of charity further and read it as saying that perceiving is an alteration *by* a sensible object, rather than an alteration *of* a sensible object, as the formulation suggests. Taken this way, the first part reminds us of Aristotle's characterization of perception as alteration of a certain sort.<sup>33</sup> The characterization of the sense as a mean, on the other hand, is familiar enough.<sup>34</sup> So the first sentence seems to summarize, if in an unduly compressed manner, Aristotle's characterizations of *aisthēsis*.

The second and longest sentence is about the common sense and its functions. The sentence can be divided into four parts, which I have separated in the translation by semicolons. The first three parts are almost identical to the previously analysed shorter entry (Aët. *Plac.* 4. 10. 2=Stob. 1. 51. 3). This suggests that the

<sup>33</sup> *DA* 2. 4, 415<sup>b</sup>24; 2. 5, 416<sup>b</sup>33–5, 417<sup>b</sup>29–418<sup>a</sup>6.

<sup>34</sup> *DA* 2. 11, 424<sup>a</sup>4–6; 2. 12, 424<sup>b</sup>1; 3. 7, 431<sup>a</sup>19; 3. 13, 435<sup>a</sup>21.

shorter entry may be Stobaeus' own excerpt from the longer entry presently under consideration, which he deemed worth citing also in the context of the question concerning the number of the senses admitted by various philosophers. If so, a reconstruction of Aëtius' *Placita* should *not* contain both entries, as we in fact find them in Diels. In any case, drawing on the previous analyses, in the first three parts of the second sentence we learn that the common sense receives reports from the special senses, and that it has two functions: discrimination of composite forms and apprehension of features such as shape and change.

The last, fourth part of the second sentence is particularly interesting. The common sense is said to be on the borderline between the rational and the non-rational on account of partaking of memory and intellect. The common sense is said only to partake (*μετέχει*) of memory, which indicates a weaker relationship between the common sense and memory than the one found in the entry ascribed to Arius. Whatever the exact relationship between the common sense and memory might be here, the relationship between the common sense and intellect is described in the same way, which is very puzzling. Now to say that the common sense is 'on the borderline' (*ἐν μεθωρίῳ*) between the rational and the non-rational presumably does not mean that it separates the two without being either rational or non-rational, but rather that it connects them and is in a way both. If that is correct, the idea seems to be that the common sense is non-rational on account of its association with memory and rational on account of its association with intellect, although that is only a guess. Nevertheless, the common sense is said to be something that connects non-rational and rational cognitive capacities, and I have already pointed out that such a connection was vital to Aristotle.

The common sense is said to be on the borderline between the rational and the non-rational also on account of extending not only to rational but also to non-rational animals (*καὶ ἐπὶ τὰ ἄλογα τῶν ζώων*), which makes it to some extent analogous to thought in humans. This parallels a passage from the *Historia animalium* in which Aristotle claims that many non-human animals have 'semblances of intelligence characteristic of thought', and some natural capacity analogous to art, wisdom, and intelligence in humans (*HA* 7. 1, 588<sup>a</sup>23, 28–30). It seems that the present entry of Aëtius identifies this natural capacity with the common sense. The identification is very plausible, since the common sense—on an inflationary

interpretation—provides all the cognitive machinery a non-rational animal needs to behave in ways that we would call intelligent.

The third and last sentence supplies a list of the common sensibles with a specification as to which type of the common sensible is accessible to which sense. This sentence seems misplaced, since it has no connection whatsoever with the preceding one. If anywhere, one would expect it to come after the words 'as with shape and change of the body' several lines above. However that may be, the supplied list of the common sensibles diverges from Aristotle's most complete list of the common sensibles in *DA* 3. 1, 425<sup>a</sup>16, by the addition of 'distance' (*διάστημα*) and by the omission of 'rest' and 'one'. 'Rest' is probably omitted because it is a privation of change, and 'one' because it can be subsumed under number.<sup>35</sup> As for the inclusion of 'distance' in the list of common sensibles, this is what Theophrastus and Alexander have done, which suggests that there was a well-established Peripatetic view to that effect on which Aëtius' report relies.<sup>36</sup>

The last entry to be examined is no doubt meant to be read immediately after the preceding one, because it equates the outlined notion of the common sense with the Stoic notion of internal touch (*ἐν-τὸς ἀφή*) by which we are aware of ourselves. I assume that this refers to the Stoic view that animals are aware of whatever is happening to them, both from the inside and from the outside.<sup>37</sup> This awareness of one's own condition precedes sense-perception in Stoic theory. The idea, as David Sedley explains, is that 'in sensing the heat of a nearby stove we first become aware that our flesh is growing hot,

<sup>35</sup> For Aristotle, number is something made up of two or more ones (or units), so one cannot itself be a number; see *Metaph.* I 1, 1053<sup>a</sup>30; *N* 1, 1088<sup>a</sup>6–8; *Phys.* 3. 7, 207<sup>b</sup>7. We find this view before and after Aristotle. However, there is no reason to suppose that ancient authors without strong theoretical commitments should consider one as anything other than a number: see J. Høyrup, 'Conceptual Divergence—Canons and Taboos—and Critique: Reflections on Explanatory Categories', *Historia mathematica*, 31 (2004), 129–47 at 143–5. I am grateful to Reviel Netz for an exchange on this issue.

<sup>36</sup> See Thphr. *De sens.* 36 and 54, and Alex. Aphr. *In De sensu* 84. 10–13 and 85. 14–16 Wendland. We can only speculate why Aristotle did not count distance a common sensible, but my guess is that he would subsume it under magnitude.

<sup>37</sup> Chrysippus speaks of the awareness of one's own constitution (*SVF* iii. 178), whereas Cicero and Seneca speak of *sensus sui*. The awareness of one's own condition looms large in the fragment of Hierocles: see A. A. Long, 'Hierocles on *Oikeiōsis* and Self-Perception', in K. J. Boudouris (ed.), *Hellenistic Philosophy*, i (Athens, 1993), 93–104, repr. in Long, *Stoic Studies* (Cambridge, 1996), 250–63. There is also some evidence that the Cyrenaics and Epicureans developed a similar notion: see Sedley, 'Common Sensibles', 130–1.

and in feeling the hardness of a rock we first become aware that our flesh is being compressed. Such awareness of our internal condition is not the special prerogative of any one sense. It is a *common* sensory function.<sup>38</sup>

The Stoic notion of internal touch was linked, I take it, to the doctrine of *pneuma*, the soul-substance that interpenetrates the body. Because *pneuma* is itself a body in Stoic theory, it is affected when any part of the body is affected from the outside or from the inside. And when *pneuma*, being the soul-substance of an animal, is affected, the animal becomes aware of its own condition. The name 'internal touch' was probably meant to pick up the interior material interaction between *pneuma* and the body, by means of which one becomes aware of one's own condition.

The Stoic notion of internal touch has no parallel in Aristotle. However, in *De somno* 2, 455<sup>a</sup>16, Aristotle mentions a 'common capacity accompanying all the senses', to which 'perceiving that we are seeing and hearing' is ascribed.<sup>39</sup> Admittedly, Aristotle is describing a function of the common sense which consists in registering the activity (and occasional inactivity) of the special senses. This function is characteristic of the waking state, since to be awake is to be aware of the activity or inactivity of one's senses. In sleep, by contrast, one is not aware of the inactivity of one's senses, which is part of Aristotle's explanation of why we are deceived by dreams.<sup>40</sup>

Interpreted in some such way, Aristotelian 'perceiving that we are seeing and hearing' can be associated with the awareness of one's own condition in Stoic philosophy. And once that association is made, the common sense can readily be equated with internal touch. Both internal touch and the common sense are monitoring capacities with access to the special senses, and they both provide some sort of awareness of what is happening with the special senses and ourselves. Of course, we know that all this is construed very differently in Aristotle and in the Stoics, but we can see why a person interested in collecting opinions of various philosophers on particu-

<sup>38</sup> Sedley, 'Common Sensibles', 130.

<sup>39</sup> In a famous passage in *De anima* 3. 1 (425<sup>b</sup>12–25) Aristotle seems to argue that we perceive that we are seeing by sight. I maintain in *Common Sense*, 174–83, that the *De anima* passage presents a dialectical argument in which Aristotle solves a problem posed by Plato without introducing any conceptual apparatus other than that admitted by Plato. Hence, I do not think we should take the *De anima* passage to express Aristotle's considered view.

<sup>40</sup> For a more detailed discussion see my *Common Sense*, 163–92.

lar topics, rather than in studying their works, would like to make the equation.

#### 4. Conclusions

Our examination of the doxographic entries allows us to draw several conclusions. First, most of what they say can be related to Aristotle's doctrines, sometimes even to particular passages in Aristotle's works. This does not necessarily imply, however, that these entries were written with first-hand knowledge of Aristotle's texts, although that might well be the case with the entry attributed to Arius. The entries attributed to Aëtius, given their compressed character and various non-Aristotelian elements, were almost certainly based on compendia and digests of philosophical doctrines available at the time.

Second, the doxographic entries show that there was an active interest in Aristotle's notion of the common sense in the period between the end of the fourth century BC and the mid-second century AD. It is possible that this interest was concentrated in the period after the mid-first century BC, following the renaissance of Aristotelian studies sparked by Andronicus' edition of Aristotle's works. In any case, this interest was not restricted to Peripatetic philosophers. Aristotle's concept of the common sensible received attention from the Epicureans, and this most probably entailed an interest in the common sense, since it can be, and often has been, interpreted as the capacity by means of which the common sensibles are grasped. Moreover, the epistemological import of Aristotle's notion of the common sense was appreciated. Interpreted along inflationary lines, it provided the link between the lower and higher cognitive capacities and supplied an explanation of intelligent behaviour of non-rational animals.

Third, we have seen that in their reports of Aristotle's views the doxographers mixed terminological or doctrinal elements that belong to other philosophical schools, without worrying much about possible distortions or inaccuracies arising therefrom. For instance, Arius happily expanded the common sense with the capacity to form beliefs, arguably under Platonic influence. Aëtius interpreted Aristotle's views about the perception of common sensibles with reference to the Epicurean conception of the common sensibles and

the way they are apprehended. Similarly, Aëtius or his source identified the Aristotelian common sense with the Stoic inner touch on the basis of no more than some superficial analogies between them. It is precisely such practice that makes doxographic reports of the views of earlier philosophers frustratingly unreliable.

Nevertheless, the surveyed reports are some of our earliest evidence of the reception of Aristotle's notion of the common sense, a notion which plays a prominent role in psychological theories until the eighteenth century. Moreover, the doxographic reports contain the earliest precursors to the inflationary line of interpretation pursued by a majority of modern scholars. To prove that, however, it would be necessary to examine the testimonies of the Peripatetic philosophers from Theophrastus to Alexander and to show that they developed a deflationary interpretation, which is a topic for another study.

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#### BIBLIOGRAPHY

- Baltes, M., 'Muß die "Landkarte des Mittelplatonismus" neu gezeichnet werden?', *Göttingische gelehrte Anzeiger*, 248 (1996), 91–111; repr. in id., *Dianoemata: Kleine Schriften zu Platon und zum Platonismus* (Stuttgart and Leipzig, 1999), 327–51.
- Cashdollar, S., 'Aristotle's Account of Incidental Perception', *Phronesis*, 18 (1973), 156–75.
- Diels, H. (ed.), *Doxographi Graeci* (Berlin, 1879).
- Frede, M., 'Aristotle's Rationalism', in id. and G. Striker (eds.), *Rationality in Greek Thought* (Oxford, 1996), 157–73.
- 'Observations on Perception in Plato's Later Dialogues', in id., *Essays on Ancient Philosophy* (New York, 1987), 3–8.
- Göransson, T., *Albinus, Alcinous, Arius Didymus* (Göteborg, 1995).
- Gregoric, P., *Aristotle on the Common Sense [Common Sense]* (Oxford, 2007).
- and Grgic, F., 'Aristotle's Notion of Experience', *Archiv für Geschichte der Philosophie*, 88 (2006), 1–30.
- Høyrup, J., 'Conceptual Divergence—Canons and Taboos—and Critique: Reflections on Explanatory Categories', *Historia mathematica*, 31 (2004), 129–47.
- Kahn, C. H., 'Arius as a Doxographer' ['Arius'], in W. W. Fortenbaugh

- (ed.), *On Stoic and Peripatetic Ethics: The Work of Arius Didymus* (Boston, 1983), 3–13.
- Lautner, P. 'The Distinction between *φαντασία* and *δόξα* in Proclus' *In Timaeum*', *Classical Quarterly*, NS 52 (2002), 257–69.
- Long, A. A., 'Hierocles on *Oikeiōsis* and Self-Perception', in K. J. Boudouris (ed.), *Hellenistic Philosophy*, i (Athens, 1993), 93–104; repr. in Long, *Stoic Studies* (Cambridge, 1996), 250–63.
- Mansfeld, J., and Runia, D. T., *Aëtiana: The Method and Intellectual Context of a Doxographer* (Leiden, 1996).
- Monet, A., 'Philodème et Aristote sur les sensibles communs' ['Sensibles communs'], in G. Giannantoni and M. Gigante (eds.), *Epicureismo greco e romano*, ii (Milan, 1996), 735–48.
- Owens, J., 'Aristotle on Common Sensibles and Incidental Perception', *Phoenix*, 36 (1982), 215–36.
- Ross, W. D. (ed.), *Aristotle: De anima* (Oxford, 1961).
- Sedley, D., 'Epicurus on the Common Sensibles' ['Common Sensibles'], in P. Huby and G. Neal (eds.), *The Criterion of Truth* (Liverpool, 1989), 123–36.