

31

ARISTOTLE

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A philosophical theory of memory needs to satisfy a rather long and demanding list of desiderata. Memory is not perception, and memory is not knowledge; but perception can give rise to knowledge and to memory, memory can give rise to knowledge, and knowledge can give rise to memory. So the three seem closely related; our theory needs to capture and explain their relations, and the similarities and differences between them. Also, memory seems to involve a distinction between potentiality and actuality: if you ask me to remember something, I often can remember, but typically I don't *actually* remember until you prompt me to. (And notice the ambiguities in these bits of ordinary language: "I didn't remember when you first asked me 'Do you remember?'," but now I do remember, so yes, I did remember.") Our theory should explain these puzzles; not to mention the connected puzzle about what it is for me to "store" a memory, and how I recall memories from that "store." Then there is a puzzle about how the process of recall can go wrong, as it clearly can in at least two ways: I can *fail to* remember and I can *misremember*. What do our accounts of these phenomena say about what it takes for the process of remembering to go right? And what exactly, to raise a presumably connected question, is memory's physical basis? Again: if knowledge comes in varieties—maybe (as I have argued elsewhere¹) the four varieties propositional, practical, phenomenal, objectual—does memory come in the same varieties?

Aristotle's philosophy of memory is mainly found in the short treatise in his *Parva Naturalia* ("short scientific works") called *Peri mnēmês kai anamnêseôs*, "On Memory and Recollection," which I'll here refer to by its customary name, *de Memoria* (abbreviated *dM*). In this remarkable, subtle, and surprisingly neglected² treatise, Aristotle shows in the most obvious way that he is aware of at least most of these desiderata, namely by seeking to address them.

He does so against two important backdrops. One is his Platonic heritage. The other is his broader commitments in metaphysics, psychology, epistemology, and the philosophy of mind and perception. To summarize what I'm going to do here: first we will try and gain some command of these two backdrops; then we turn to *dM* itself, taking its discussion of *mnēmê* and *anamnêsis* in turn.

1. The Platonic background

For Plato in his earlier works, most obviously the *Meno* and *Phaedo*, memory—as "recollection," *anamnêsis*—is a pointer to our immortality, and a sign of how the soul transcends the body.

Our minds can access *a priori* truths because these (all of them!) are written into our minds from eternity; in accessing these truths by recollection, we come to the securest knowledge we can possibly have. For Plato in his later works too, memory is still recollection in something like this sense; it is a way of accessing the Forms, and truths about the Forms.

Even if this account of memory as recollection is correct, it can hardly be a complete account, for a very simple reason: this isn't what ordinary people typically *mean* when they talk about memory (or *mnêmê*, in Plato's Greek). What they mean is, obviously enough, things like recognizing a face that you've seen before (*Theaetetus* 144c), or recalling a road that you've walked before (*Meno* 97a). Quite possibly, there is no one thing that memory is; compare the varieties of knowledge noticed above, and ask yourself how similar e.g., remembering *facts* and remembering *how to do things* and remembering *smells* and remembering *people* are. But at any rate it is surely clear that memory is not just the one thing that Plato calls "recollection."

Apparently under the pressure of this criticism—it may well have been his pupil and junior colleague Aristotle who first pressed it—the later Plato moves to a wider conception, on which memory is a name for a variety of things, some of which are clearly very different from what Plato calls recollection. In the words of *Philebus* 34a10, memory is also "the preservation of perception," *sôtêria aisthêseôs*, the retaining in the mind of an awareness of a past perception. The *Republic's* discussions of the psychological results of an education in poetry, and the *Theaetetus's* discussions of the possible relations between perception and knowledge in the "Wax Block" and "Aviary" sections (*Tht.* 192a–200c), not to mention the *Theaetetus's* case of the jurymen (*Tht.* 201a–c), all already tacitly assume the possibility of memory in this sense—as indeed, as already pointed out, does the case of the road to Larisa (*Meno* 97a).

Hence *Philebus* 34b just makes explicit a distinction between "recollection" and "memory," *anamnêsis* and *mnêmê*, that Plato has already, perhaps inadvertently, talked himself into deploying. The *Philebus* then immediately argues that not only recollection but memory too, bodily though it seems to be, is impossible without the involvement of the soul. At least in humans, all desire (says Plato) presupposes two abilities: (a) to wish for things to be otherwise than they are, and (b) to remember that they can be otherwise (*Philebus* 34c–36c). But no one can have either of these abilities on a merely physical basis; both abilities, because they are abstracting and universalizing abilities, necessarily involve the soul. So Plato concludes that *mnêmê*, for all its apparent physicality, is just as much evidence for a separately existing soul, once it is properly understood, as *anamnêsis* is.

In *dM*, Aristotle begins from this later-Platonic distinction. (The work seems deliberately named to reference the *Philebus* discussion.) But Aristotle does not see Plato's distinction as moving us towards Plato's conclusions, and in particular not towards Plato's kind of dualism. The point of *dM* is to repurpose the *Philebus's* distinction, to point it in a different direction; unsurprisingly, an Aristotelian one.

Before we look at how Aristotle's argument goes in detail, we should sketch in the other kind of backdrop I mention above, namely the wider philosophy of mind and perception within which Aristotle's account of memory finds its specific place.

2. The Aristotelian background

The general principle of Aristotle's philosophy of mind is laid down by his even more general metaphysical commitment to *hylomorphism*. According to Aristotle, any sublunary thing at all can be metaphysically analyzed as matter (*hylê*) plus form (*morphê* or *eidôs*). There is the stuff that a thing is made of, and there is the thing that that stuff is made into. So with a statue, or a tree, there is the matter (bronze, wood) and there is the form (Pericles, this particular beech-tree).

The matter is the ingredients or components or materials of the thing; the form is what the thing *is*. The thing could not exist without its matter; the matter would not exist *as* something unless it was *this* something, this thing here (a *tode ti*, “a particular”; in the case of a natural thing like a tree, “an individual substance”). So any particular thing at all can equally be seen as informed matter or enmattered form. The form is the actualization of the matter; the matter is potentially what the form makes it actually: the matter is the “underlier” that *can* change into a whole variety of things, and the form is the “supervening” nature that it *does* change into. The bronze has the potential to become (*inter alia*) this statue of Pericles here, and the wood, leaves, bark, sap, etc. (fill in modern scientific details as required) have the potential to become (*inter alia*) this tree here. This potential is realized, precisely, in the coming-into-existence of the actual statue or tree itself.

Strikingly, and audaciously—perhaps even recklessly³—Aristotle’s philosophy of mind in general, and his philosophy of perception specifically, rest both of them upon applications of this idea. Aristotle is as happy as Plato to talk of body and soul, *sôma* and *psychê*. But for perhaps the first time in the history of Greek philosophy, Aristotle offers a clear and philosophically sophisticated view of this relation. Aristotle’s thesis, most clearly announced in *de Anima* (*dA*) 2.1, is that soul is to body as form is to matter. The soul is the *life* of the body. The soul is what makes the body perform its distinctive functions, develop its distinctive capacities, and keep itself in existence by way, *inter alia*, of what we now call homeostatic feedback—self-monitoring self-adjustment, as and when necessary, away from excess or defect and back towards the golden mean of the species-norm.

Aristotle’s use of a hylomorphic framework doesn’t stop with the mind–body relationship. He applies the hylomorphic model to the philosophy of perception too. According to him, when I perceive a tree, my perceptual organs are (in the literal and in fact the original sense) *informed* by the tree: for me to perceive a tree is for me to take on the form of the tree. (See *de Anima* 2.5, and in particular the claim that it leads up to at *dA* 418a3: “The perceiver is potentially what the percept is in actuality.”)

There is a Platonic background here too. The *Theaetetus*’ famous metaphor of the process of perception and memory as the imprinting of an impression on a wax block is one that Plato himself is suspicious of: it fits with an empiricist picture of perception and memory that is not Plato’s own. Aristotle, however, accepts the wax-block picture (at *dM* 450b1–11 he quotes *Tht.* 194c–d pretty well verbatim, in order to explain a variety of ways in which there can be both misremembering and failing to remember). After all, when an impression is made in a wax block, this is a clear case of one thing taking on the form of another thing, and so seems tailor-made to go with a hylomorphic analysis.

How can this imprinting metaphor be cashed out in a serious and scientific theory of literal perception? A moment’s thought shows that, as things stand, the metaphor is *only* a metaphor. The wax block that takes on the impression of a signet-ring does not thereby perceive the signet-ring; the mirror that reflects my shape and appearance does not thereby perceive my shape or appearance. When I sit down, the armchair shapes itself to my shape, but that doesn’t mean it is perceiving my backside. Aristotle may be going some way towards acknowledging this difficulty when he notes in *de Anima* 2.6 (418a16 ff.) that perceiving organs and percepts have to be “appropriate” (*idia*) to each other. So perception involves a case of the hylomorphic relation; but a *special* case.

But special *how*? If a mirror cannot be said to see a tree just because the mirror reflects it, how can the eye’s pupil be said to see that tree just because the pupil contains an image of the tree? We need to know what *makes* the eye the right kind of material to receive the tree’s

form in the perceiving way. It is quite unclear how Aristotle's theory of perception can answer this last question. The key part of any decent response will surely consist, not in deploying the hylomorphic framework, but in specifying details that go beyond that framework and, in truth, have nothing specific to do with it at all.

These are the problems in the philosophy of mind and perception that, together with his Platonic heritage, form the essential backdrop to Aristotle's philosophy of memory in *de Memoria*.

3. *De Memoria*: (a) On memory (449b9–451a17)

As its full Greek title suggests, *dM* is largely structured by the contrast between its two eponyms, *mnêmê* (considered in *dM* 449b9–451a17) and *anamnêsis* (*dM* 451a18–452b7); two shorter concluding sections consider the relation of memory and recollection to time-perception (452b8–453a4) and to physiology (453a5–b7). My main division here is between memory (3a) and recollection (3b); the discussion of memory and time, I consider briefly at the end of (3a); the physiological remarks we can deal with along the way.

The contrast between “memory” and “recollection,” Aristotle thinks, is a real one; but it is not the contrast that Plato was drawing at the time he wrote the *Philebus*. It is, in essence, simply the contrast between *retaining* a perception and *recalling* that perception.⁴ But some further stage-setting will be necessary to frame that answer.

Characteristically, Aristotle's first observation about memory seems platitudinous, but in fact has important consequences. It is that memory is necessarily of the past, and cannot be of the future or the present (*dM* 449b9 ff.), to which expectation/opinion (*elpis/doxa*) and perception (*aisthêsis*) respectively relate. This immediately draws a clear line between what Aristotle means by *mnêmê* and what Plato, a lot of the time, seems to have meant by *anamnêsis*. What the slave-boy “recollects” in the most famous episode in the *Meno* (81e–86c) is geometrical truths and relations. But these are not *past* at all—though not present either; it makes more sense to see them as atemporal truths. So whatever is going on in the case of the slave-boy, Plato must have been wrong to describe it, as he was happy to at the time, indifferently as a matter of recollecting *or* remembering.

A second reason why “Memory is necessarily of the past” is worth saying is that it draws our attention to a contrast that, for most of the first part of *dM*, interests Aristotle much more than the memory/recollection contrast; namely the memory/perception contrast. If memory is “the preservation of perception,” it seems to follow that perception *becomes* memory given a lapse of time—as Aristotle seems to suggest at *dM* 449b24–30. But how does that happen? What picture of perception makes this idea workable?

As Aristotle says at *dM* 449b31–32, his answer comes from his account of *phantasia* in *dA* 3.3. *Phantasia* in Aristotle means, basically, the mind's reception of *phantasmata*, perceptual images. (Since it's a technical term of his philosophy, I think it best to leave the word untranslated.⁵) Aristotle's idea is that when the mind is “impressed” by a perception, the process of perception imprints an image upon the mind in something like the way that a signet-ring imprints its seal upon the sealing-wax (*dA* 412b6, *dM* 450a31–2). The perception is the process (*kinêsis*) in which the “shape” of the percept imprints itself; the memory is the condition (*hexis*) of the mind that retains this “shape” afterwards, with the shape of the percept, so to speak, left behind in the wax; and the *phantasma* is this shape. So again we have a form/matter relation between perception and memory: the form and matter of the percept are *both* present in the perception, but what is left behind in the memory is just the image of the percept—its “sensible species,” its form.

When we consider what Aristotle actually wants to do with this picture of perception and *phantasia*, it rapidly appears that it is only a picture, and that his ambitions go well beyond what the picture entitles him to. Literal imprints in a literal wax tablet just sit there, doing nothing very much. (Perhaps it is this sort of passivity and inertia that prompts Aristotle to open his discussion of memory by saying that the slow-witted are better at remembering, the quick-witted at recollecting: *dM* 449b7–8.) The wax-block metaphor runs out because the *phantasmata* of Aristotelian *phantasia* very clearly have a life, and a liveliness, of their own. *Phantasia* in Aristotle is not just the condition of having impressions sitting there passively in your mind; *dM* 450a1 tells us that it is a necessary condition of any thought at all, and clearly most thought is not passivity but activity.

In this respect, Aristotle's *phantasia* resembles what we call the imagination: roughly, a faculty of more or less creative visualizing. (Or otherwise evoking past perceptions. *Pace* some commentators, nothing in Aristotle's account of *phantasia* forces him to take it as specifically about *visual* perception. Still, the priority of the seeing modality of perception in his account of *phantasia* is obvious.) *Phantasia* involves not just inert imprints, but further processes of combination and recombination of those imprints, for example in dreams and delusions (*dM* 451a9), in thought about the future, and again in intentional mental acts of visualization like those that a geometrician—or a poet—might perform (*dM* 450a1 ff.). It is a very striking point about Aristotle's philosophy of mind that his *prōton aisthētikon*, his “basic perceiving mind,” has as its basic activity not only perceiving, but *phantasia* as well (*dM* 450a11–13). Indeed there is a sense in which *phantasia* is even more basic than perceiving. For all perceiving is or involves *phantasia* (there is no “blind-sight” in Aristotle). But though all *phantasia* (in true empiricist style) arises from some past perception, not all *phantasia* is or involves (veridical, present-tense) perceiving—as the cases of dreaming, day-dreaming, delusion, illusion, visualization, expectation, and indeed memory all attest.

We might even suggest that perception, visualization, delusion, memory, etc. all relate to *phantasia* as species to genus. Aristotle himself never makes this suggestion, and there are good and obvious reasons why not. For a start, *phantasia* relates to perception as effect to cause and as “shadow” to reality; again, the suggestion is rather too close for comfort to a possible joke-analysis of seeing as the special case of visual delusion where the object is, well, not delusory. The suggestion should not be taken too seriously—despite the apparent encouragement of *dA* 428a13—but it does perhaps shed some light. For *phantasia* as Aristotle presents it seems to be the same kind of mental activity—in *some* good sense of “same”—whether it is online or offline, whether it accompanies veridical perception, non-veridical dreaming, illusion, day-dreaming, and visualizing, or indirectly veridical memory.

Actually, Aristotle says that *mnēmē* is a species not of the genus *phantasia* but of *two* genera, perception and judgment (*hypolēpsis*). Relative to both, *mnēmē* is the species that we get by adding the differentia of a time-lapse (*dM* 449b25); cf. my remark at the start of Chapter 30, “Plato,” that (veridical) “memory is just the temporal dimension of knowledge.” Thus Aristotle introduces an important duplication: there is the *mnēmē* that is a kind of judgment, and there is the *mnēmē* that is a kind of perception. (Here, then, is a third bar to treating *mnēmē* as a species of the genus *phantasia*.) Now *dM* 450a21 tells us that “all remembering involves being conscious as well that one previously saw or heard or learnt; that is why you can't remember without having a sense of time,” a stricture that is already supposed at *dM* 449b24–9 to show that those animals that have no sense of time, cannot have *mnēmē* either. (Contrast *dM* 453a7–14 for the claim that animals that cannot reason (*syllogizein*) cannot recollect, because recollecting is a kind of reasoning.) But surely, all it actually shows is that animals that have no articulate and discursive sense of time cannot have the kind of *mnēmē* that is a species of judgment. It doesn't show that they

cannot have the kind of *mnêmê* that is a species of perception, and with it, perhaps, an inarticulate and non-discursive sense of time (more about memory and time-discrimination in a moment).

So *mnêmê*, like perception and judgment and unlike visualization or daydreaming or supposing, is truth-apt: it can be right or wrong. And unlike delusion or illusion or false belief, it is not essentially mistaken: it aims at the truth, and, as Aristotle would put it, “is such by nature as” (*pephuke*) to arrive at the truth.

The largest remaining question about our two species of *mnêmê*, then, is the question how they relate, causally and logically, to the judgment and the perception from which they arise. This is the question to which Aristotle turns in *dM* 450b11–451a14—a remarkable piece of analysis which deserves our close attention.

But if this [sc. the wax tablet model of memory] is how things happen in the case of memory, then is it this [mental] affection [sc. the *phantasma*] that the person remembers, or is it that [worldly] object from which the [*phantasma*] derives?

(*dM* 450b11–13)⁶

The question sets a strikingly modern dilemma about thought and its objects. Aristotle goes on:

If [what we remember] is this [sc. the *phantasma*], then we would never remember anything that was not present to us. But if [what we remember] is that [sc. the object], then how can it be that we remember what is absent and what we do not perceive, by perceiving the *phantasma*[, which is present]?

(*dM* 450b13–16)

Aristotle is so struck by this problem that he draws out its puzzles a little further:

If there is in us something like an impression (*typos*) or an inscription (*graphê*), why would perception of *this* very thing be memory of some *other* thing, rather than of *it* [the impression]? For the person who is activating his memory directs his attention to [*theôrei*] this affection—the impression; it is of *this* that he has perception. So how does he [thereby] *remember* what is not even present? That would mean that we can hear and see what is not present!

(*dM* 450b16–20)

Some recent commentators, Myles Burnyeat and John McDowell for instance, have often been keen to rescue Plato and Aristotle from anachronistic readings of them as eighteenth-century empiricists; the usual form of this rescue has been to read them instead as twentieth-century Wittgensteinians. This is not the place to ask whether such readings work in general. But it is the place to point out that here, at any rate, we have clear evidence that Aristotle does not sign up to one key Wittgensteinian objection to “the way of ideas,” namely that it is simply misplaced to describe our awareness of inner images as *perception*.⁷ For in this passage Aristotle does talk explicitly of the perception, *aisthêsis*, of “internal” *phantasmata*, and apparently takes it to be no less genuinely perception than “external” hearing and seeing are.

Anyway Aristotle now has his dilemma about memory. Memory is either (a) of the proximal impression, or (b) of the distal object. If (a), then memory is not open to the objection that “you can’t perceive what isn’t there,” but does not seem to be of the distal object; if (b), then memory is of the distal object, but seems wide open to the objection that “you can’t perceive what isn’t there.”

To resolve this dilemma he says this:

Isn't it possible for just this to happen [sc. that by remembering we perceive what is not present]? It is like a drawing on a panel, which is both an animal and a picture [*eikôn*] [of an animal]: it *is* the animal, and it *is* the picture—it is both. And yet the essence of animal and picture is not the same; it is possible to attend to [the drawing] both *as* an animal, and *as* a picture. Just likewise we should understand the *phantasma* within us. It can be an object of attention both as a thing in its own right, and also as the image of something else.

(dM 450b19–26)

In effect Aristotle tells us here that the key to a correct philosophical theory of memory is the notion that we now call *reference*. Aristotle has no specific word for the notion, but he indicates it fairly clearly by his use of *hôs* (“as,” “qua,” “under the aspect of”), and of simple Greek genitives; as if we in English were to use italics to draw attention to the prepositions *of* and *about*.

Thus a *phantasma*, a mental image, has an existence in its own right, as a presence in our subjective experience. But it also has an existence as the image *of* something. So in one sense the objects of memory are *phantasmata*—and since they are there in our minds at the time of remembering, memory is indeed *of* things that are present. Yet in another sense the objects of memory are the real-worldly things *of which* these *phantasmata* are images—and since they are not there in our minds at the time of remembering, there is also a sense in which memory is *of* things that are absent.

Insofar as Aristotle's theory of memory is successful, this subtle and ingenious distinction is the key to its success. The distinction is crucial, too, to a proper understanding of Aristotle's wider doctrine that “there can be no thinking (*noein*) at all without *phantasmata*” (dM 450a1). Aristotle's idea is that thinking in general is in one sense a thoroughly physical and natural process; for all it involves is the manipulation of mental images. Yet from the point of view of what Aristotle often calls a “logical” understanding, the crucial thing is not so much the images as the manipulation.

Compare an abacus, which from the “physical” point of view is no more than an arrangement of moveable beads on immoveable bars. Yet from the “logical” point of view an abacus is, *also*, a representation of a possible infinity of abstract arithmetical relations. What ties together the two points of view—making it possible at once for mere arrangements of beads to ascend to the lofty role of symbolizing abstract mathematical relations, and for abstract mathematical relations to become incarnate in mere arrangements of beads—is, once more, the concept of *reference*.

Here, as any modern philosopher will see, there arise difficult questions about how to understand the reference relation. Apparently a *phantasma* P cannot refer to an original O unless O is the *cause* of P, but neither can P refer to O unless P *resembles* O. Reference seems to involve both causal connection and resemblance, and in the *dM* Aristotle uses language that implies both: he speaks of imprinting as a *kinesis*, of having-been-imprinted as a *pathos*, but also of the resulting impression as an *eikôn*. He does not answer the question how exactly these two factors interact. That is a question that we can leave to modern philosophers working in the tradition of the philosophy of reference that goes back to the writings of Frege, Russell, and Kripke. But Aristotle certainly deserves some credit for making it a question that can at least be stated.

What Aristotle apparently does try to do—this is a speculation, but I hope a plausible one—to make sense of memory, and in particular of the reference-relation that is involved in memory, is to make something of his notion, already referred to, that memory and recollection both

involve a judgment or perception of time; he comes back to this at *dM* 452b8–453a14. If I read him right, the idea is this. Aristotle thinks that we have, in general, a capacity for making discriminations of greater and lesser in time–extent, just as we can make these discriminations with other kinds of extent (452b8–22); and he thinks that it is a necessary part of remembering and of recollecting that it should include such a time–discrimination (452b23–453a4). His suggestion is, then, that the reference to something distal that is necessarily part of memory and recollection is to be understood by adding a second–order judgment about time to stand alongside the first–order judgment or perception that memory or recollection involves: e.g., “the cat was on the mat” (first–order) is to be accompanied by “My perception that ‘the cat was on the mat’ was at t” (second–order).

This suggestion does not work as an explanation of the *reference* part of any memory–judgment, for the obvious reason that it is regressive: the explanation of the reference–relation, as it occurs within a judgment or proposition, cannot take the form of adding a *further* judgment or proposition within which that reference–relation *also* occurs. If we waive that problem, the suggestion may look more hopeful as an explanation of the phenomenon of memory itself. There is undoubtedly a sense of memory in which you don’t remember *that* p unless you remember *when* p. However, as I remarked above with regard to the case of animal memory, this sense refers to a particularly sophisticated and articulate form of memory. It is too strong to say that there cannot be memory *at all* without a clear and explicit judgment about when the content of the memory occurred.

Aristotle turns from (a) memory to (b) recollection at *dM* 451a18.

4. *De Memoria*: (b) On recollection (451a18–452b7)

As already suggested, the distinction between memory and recollection that Aristotle wants to make, in contrast to Plato, is simply a distinction between retention and recall: between holding something in your mind, which is what *mnêmê* does, and bringing something back to mind, which is the role of *anamnêsis*.

What kind of “something”? Retention and recall of what? Aristotle begins his discussion of recollection by stressing that recollection is not recollection *of memories* (*dM* 451a21 ff.). Recollection and memory are both of the same two things, namely of knowledge and perception (*dM* 451b4; cf. my remarks above about *dM* 449b25 on judgment and perception). But how can knowledge and perception be available for memory or recollection? Aristotle’s answer is clearly “by way of *phantasmata*,” but it takes him until 453a16 to make this fully explicit: “recollection is a searching, in this sort of physical medium, for a *phantasma*.” So in memory, knowledge or perception is retained in us by the retention of *phantasmata*; and in recollection, knowledge or perception is recalled in us by the recall of *phantasmata*. When we retain knowledge or perception in memory, it is *phantasmata* that we store; when we recall knowledge or perception in recollection, it is *phantasmata* that we recall. Given Aristotle’s wider doctrine (see *dM* 450a1, *dA* 427b15, *dA* 3.2–3 *passim*) that *phantasia* is a necessary condition of any thought at all, the central place of *phantasmata* in his account of the nature of thought seems undeniable. It also seems strikingly parallel—however much neo–Wittgensteinian readers of Aristotle may dislike the comparison—to John Locke’s views at the opening of Book Two of the *Essay*.

As I say, in *de Memoria* Aristotle does not make it explicit until 453a16 that the field upon which recollection (and memory) operates is a field of *phantasmata*; in 451b12–451a15 he talks mostly about recollection as involving *kinêseis*, “processes” or “motions” [sc. of the mind].⁸ This restriction and unclarity in his vocabulary does not hinder him from saying some things that mark even more clearly the parallel between his *phantasia*–based theory of thought and

“the way of ideas” that was offered, in varying forms, by Enlightenment empiricists like Locke and Hume. What is also very evident is how very far the theory of recollection that Aristotle presents, in this second half of the *dM*, is from Plato’s “theory of recollection.”

So at 451b10–14, Aristotle begins his explanation of how recollection, in his sense, happens with the following:

Recollections happen when this motion is such by nature (*pephuken*) as to come about after that one. Now if this [sequence] is by necessity, then clearly when the first happens, the second will [inevitably] happen too; but if it is not by necessity but by habituation, the second will happen for the most part.

(*dM 451b10–14*)

Just as there are two kinds of sequence in nature, the necessary and the “for the most part” (cf. *Physics* 2.1), so correspondingly there are two kinds of sequences from any mental motion A to any other mental motion B: the necessary, and the habitual. In the first kind of sequence, the occurrence of A *necessitates* the occurrence of B; in the second, A’s occurrence just makes B’s occurrence *likely*. Otherwise put: the connections between ideas can be *necessary*, or they can be *customary*. (They can also, as *dM* 452b1–5 tells us, be accidental or random: Aristotle’s general epistemological optimism leads him to think that the processes of recollection are *usually* reliable, but he does not think there is anything infallible about them. The treatise closes, 453a15–b7, with some reflections on the way bodily factors can prevent or distort accurate recollecting.)

Aristotle continues:

It happens that some motions become more “habituated” just by one occurrence, than others do even though they are moved many times; that is why we remember some things that we have seen only once better than some other things that we see again and again.

(*dM 451b14–16*)

Or as we might put this: some ideas strike us with force and vivacity, others much less so (cf. 452a27–31).

Aristotle’s next remarks are:

Thus when we recollect, we move some one of the motions from before [the one that we are seeking], [and set a sequence going from that motion], until we move the motion *immediately after which* there habitually follows the one [that we are trying to get to]. This is why we hunt in order, starting our thoughts from the present or from some other motion, and from the similar or the opposite or the contiguous.

(*dM 451b17–20*)

So recollection, we learn here, can be a voluntary process—it can be a “hunting” in our thoughts. This mental hunting is possible because ideas are connected in the ways described above, viz. necessity and customary connection (and also by the principles of association of similarity, opposition, and contiguity). So we can move through *structures* of ideas, towards the particular idea that we are seeking. (Sorabji interestingly takes Aristotle’s rather opaque remarks upon this subject to constitute a theory of mnemonics, and certainly mnemonics are not far away at this point in the *dM*.)

So what Aristotle is presenting here is, in something pretty close to the classic empiricist sense, a theory of ideas. My thesis is not, of course, that Aristotle's theory of ideas is just the same theory as Locke's, or Hume's, or Berkeley's. Patently it isn't *precisely* the same as any of those theories. Notice in particular that Aristotle's theory of ideas, unlike the Enlightenment empiricists', is studiously neutral between what the Middle Ages were to call "nominalism" and "realism"—it does not *entail* Aristotle's own moderate realism about universals, but it does not exclude it either. (The effective inclusion in Aristotle's theory of a serious attempt to make sense of reference, something that is strikingly missing in the Enlightenment empiricists, is important here.) Notice also how Aristotle's characteristic epistemological optimism comes out again in the straightforward mirroring of the distinction between necessary and customary connections *in the world* by a distinction between necessary and customary connections *among our ideas*. (Cf. *NE* 1139b7–11 for the general idea here, that the part of us that discerns any given aspect of the world will *resemble* that aspect—itsself an application of the commonplace of ancient philosophy that perception of likes is by likes.) But the affinities are clear. And if this proposal evokes the objection that it is anachronistic to suppose that Aristotle could have had a classic empiricist theory of ideas, the answer to that objection is clear too. Of course *that* supposition is anachronistic; but there is nothing anachronistic in supposing that the classical empiricists had read Aristotle's *de Memoria*. On the contrary, nothing seems more probable.

What is also notable about Aristotle's theory of thought and memory is, as I said above, how studiously anti-Platonic it is. This comes out in two ways in particular in his discussion of recollection.

Here is the first way it comes out. *Meno* 80d–e famously proposed "Meno's paradox," a dilemma according to which it is impossible to learn anything because it is either futile or impossible to "inquire" or "search" for anything one might learn. For either one knows it already, in which case inquiry is futile; or one does not know it already, in which case one cannot know where to search for it, and cannot know when one has found it either, so that inquiry, and hence learning, turns out to be impossible.

Plato's answer to this puzzle is *Plato's* theory of recollection, which is supposed, as we have seen, to be a theory that covers all knowledge. By contrast, Aristotle's full answer to Meno's paradox is (I speculate⁹) going to go something like this. First—though not in the *de Memoria*—Aristotle might point out that the paradox cannot cover *all* knowledge: mundane examples like looking for and finding (the location of) a lost sock, or the road to Larisa, show how little bite the paradox has if we take it that broadly. However, second, the paradox might have *some* bite if we were talking about trying to recollect things that we have forgotten; ironically for Plato, who sees recollection in his sense as the answer to Meno's paradox, the mental processes involved in attempting to recollect things *do* look like a case where something like Meno's paradox might be applicable. But, third, Aristotle goes on to show that, *pace* Meno, even here "inquiry" and "search" for ideas are perfectly possible; that is what Aristotle aims to show by way of *his* theory of ideas, as expounded above. As he sums up this anti-Platonic conclusion:

Many times before now someone has been unable to recollect, but when he seeks he can recollect, and he finds what he is seeking. This happens when he sets many [*phantasmata*] in motion, until he sets in motion the right kind of process upon which the [thing sought] will follow.

(dM 452a8–10)

This brings us to the other way in which Aristotle's discussion of recollection is studiously anti-Platonic. This is that, for Plato, recollection is essentially a matter of getting hold of a priori

ideas: in the *Meno*, it means grasping the connections between geometrical ideas; in *Phaedo* 74a–75b, it means grasping the Forms. For Aristotle, by contrast, recollection can be the recall of *any sort of ideas at all*, provided they exhibit some kind of order or connection. Certainly Aristotle recognizes, as already noted, a distinction between those ideas that are necessarily and those that are only customarily connected; certainly Aristotle agrees that strings of ideas are easier to recollect when, like mathematical ideas, they have some sort of inherent order to them (*taxin tina*, 452a3). He goes into considerable detail, too, about what particular mnemonic techniques we might try to deploy, when we are consciously trying to recollect something that we used to know (*dM* 452a10–26); the key thing, he says, is to secure a “starting-point” (452a12). The point remains that Aristotle’s theory of recollection is far more general than Plato’s, simply because Aristotle’s account is entirely topic-neutral. Aristotle’s account of recollection can apply to the recollection of anything.

“So” (someone might say here) “Aristotle does not *exclude*, even though he does not focus on, the possibility of a reasoned recovery, from within, of *a priori* rational connections like those that the slave-boy apparently recovers in the *Meno*.” True. But there is a difference between *seeing* such connections and *recollecting* them. Aristotle thinks that Plato has no reason to claim that the slave-boy recollects them rather than just sees them, for the first time; and since (as Aristotle began by saying) memory—and recollection—have to be of the past, our first encounter with the truths of geometry, which are not past but timeless, will have to be a matter of seeing, not of remembering or recollecting. Aristotle would also, I suspect, be sympathetic to an objection to the slave-boy example that is familiar from generations of students: namely that genuine recollection has to be genuinely *ex autou*, genuinely “from within the thinker himself”—and the slave-boy’s isn’t, it cannot happen at all without the prompting of Socrates’ questions.

What Aristotle offers us, then, on the subjects of memory and recollection, is rich, ingenious, and of extraordinary philosophical power and resonance. He is perhaps the first truly great philosopher of memory in the Western tradition. Thanks to the labors of Sorabji and others, the *de Memoria* has attracted some attention in the last forty years or so; but still, I might suggest, nowhere near as much as it deserves.

Notes

- 1 Chappell (2014: Ch. 11).
- 2 “Neglected” is a relative judgment, but still—compared e.g., with the *de Anima*—an applicable one. The main stimulus to modern interest in *de Memoria* is Sorabji (1972, 2nd edn. 2006). Bloch (2007) is a significant and valuable study, with a fuller bibliography of recent work on *dM* than I have space to provide here.
- 3 For the charge of unsustainable recklessness, see Burnyeat (1992).
- 4 Annas argues that the distinction that Aristotle has in mind is one between “non-personal” and “personal” memory, i.e., between memories of the form “I remember that Caesar invaded Britain” and of the form “I remember Caesar invading Britain.” Annas herself describes her hypothesis as “a bold one” (1986/1992: 300), which seems to be putting it mildly. This essay will argue that the *de Memoria* is concerned, rather, with a retention/recall distinction.
- 5 For useful studies of *phantasia*, see Frede (1992) and Schofield (1992). Schofield has much valuable material on how to translate *phantasia*, which he describes as a “familial [i.e., family-resemblance?] concept” (1992: 277); Schofield is on the whole rather more resistant than I am, or e.g., Sorabji (2007) is, to seeing Aristotle as a proto-classical-empiricist.
- 6 All translations are my own.
- 7 As in the old (perhaps apocryphal) Oxford examination question: “Is perception ‘seeing’ things or seeing ‘things?’”

- 8 Aristotle is not the only philosopher to talk of ideas, or something very like them, as *motions* of the mind: “When conclusions are too complex to be held in a single act of intuition, their certainty depends on memory; and since memory is perishable and weak, it must be revived and strengthened by continuous and repeated movement of thought” (Descartes, *Rules for the Direction of the Mind*, Rule XI). Thanks to Paul Fletcher for the comparison.
- 9 He never explicitly gives this answer. A more famous text where Aristotle squares up to Meno’s paradox is *Posterior Analytics* 1.1.

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